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■ EDITORIAL

- Human Nature and the Cyclic Character of Economic Crises
Ion POHOAȚĂ

■ RESEARCH PAPER

- The Crisis and Central Bank Reaction
Silviu CERNA
- Emerging Economies Faced with the Downside of Financial Globalization: Hedges and Way Outs
Sorin BURNETE
- On the Exchange Rate Risk Contribution to the Performance of International Investments:
The Case of Romania
Alexandra HOROBET, Livia ILIE
- Two Fallacies in Approaching the Current Crisis
Alexandru JIVAN
- Stability Versus Instability in the Context of Financial Globalization
Roxana HETES
- A Quantification of the 2008-2009 US Bailout Package
Cicero I. LIMBEREA

■ ESSAY

- Lessons from the Current Financial Crisis. A Risk Management Approach
Gheorghe VOINEA, Sorin Gabriel ANTON
- What Role Have Banks in Financial Crises?
Alin Marius ANDRIEȘ
- The Financial Crisis - Global Governance Failure?
Laura AFRĂSINE

■ VIEWPOINT

- The World After the Crisis
Tiberiu BRĂILEAN
- The Facts Behind USA's Pull-out of Recession in 1929-1933: F.D. Roosevelt's New Deal:
An in-depth Set of Actions in a Comprehensive Idea
Dan POPESCU

■ BOOK REVIEW

- Alan Greenspan, Le Temps des turbulences
Alexandru-Florin PLATON

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Content

EDITORIAL

- HUMAN NATURE AND CYCLIC CHARACTER OF ECONOMIC CRISES9
Ion POHOAȚĂ

RESEARCH PAPER

- THE CRISIS AND CENTRAL BANK REACTION31
Silviu CERNA
- EMERGING ECONOMIES FACED WITH THE DOWNSIDE OF FINANCIAL GLOBALIZATION:
HEDGES AND WAY OUTS41
Sorin BURNETE
- ON THE EXCHANGE RATE RISK CONTRIBUTION TO THE PERFORMANCE OF
INTERNATIONAL INVESTMENTS: THE CASE OF ROMANIA57
Alexandra HOROBETȚ, Livia ILIE
- TWO FALLACIES IN APPROCHING THE CURRENT CRISIS85
Alexandru JIVAN
- STABILITY *VERSUS* INSTABILITY IN THE CONTEXT OF FINANCIAL GLOBALIZATION.....105
Roxana HETEȘ
- A QUANTIFICATION OF THE 2008-2009 US BAILOUT PACKAGE.....127
Cicero I. LIMBEREA

ESSAY

- LESSONS FROM THE CURRENT FINANCIAL CRISIS. A RISK MANAGEMENT APPROACH139
Gheorghe VOINEA, Sorin Gabriel ANTON
- WHAT ROLE HAVE BANKS IN FINANCIAL CRISES?149
Alin Marius ANDRIEȘ
- THE FINANCIAL CRISIS - GLOBAL GOVERNANCE FAILURE?.....161
Laura AFRĂSINE

VIEWPOINT

- THE WORLD AFTER THE CRISIS.....181
Tiberiu BRĂILEAN
- THE FACTS BEHIND USA'S PULL-OUT OF RECESSION IN 1929-1933 F.D. ROOSEVELT'S
NEW DEAL: AN IN-DEPTH SET OF ACTIONS IN A COMPREHENSIVE IDEA.....189
Dan POPESCU

BOOK REVIEW

- ALAN GREENSPAN, LE TEMPS DES TURBULENCES199
Alexandru-Florin PLATON

List of figures

FIGURE 1 <i>Effects of foreign prices increase and monetary expansion on the balance of payments in a simple monetarist model</i>	44
FIGURE 2 <i>Monthly RON-EUR exchange rate – observed values and HP filter, January 1999-June 2009</i>	66
FIGURE 3 <i>Monthly RON-USD exchange rate – observed values and HP filter, January 1999-June 2009</i>	67
FIGURE 4 <i>Rolling monthly standard deviations of changes in the RON-EUR and RON-USD exchange rates</i>	67
FIGURE 5 <i>Romanian foreign exchange market: Volume of transactions, million euro</i>	68
FIGURE 6 <i>Market indices and USD-RON exchange rate</i>	74
FIGURE 7 <i>Market indices and EUR-RON exchange rate</i>	74
FIGURE 8 <i>Lambda values – USD versus EUR comparison</i>	79
FIGURE 9 <i>The incidence of different types of crises in the period 1880 – 1915</i>	115
FIGURE 10 <i>Crisis frequency 1880-2004</i>	115
FIGURE 11 <i>Real private capital flows to emerging countries</i>	119
FIGURE 12 <i>The relationship globalization – financial crises</i>	123
FIGURE 13 <i>ISLM Equilibrium during the credit crunch</i>	135

List of tables

TABLE 1 <i>Exchange rate regimes in CEE countries</i>	65
TABLE 2 <i>RON exchange rate volatility, 1999-2008</i>	67
TABLE 3 <i>Descriptive statistics of stock market and exchange rate returns – USD denominated</i>	75
TABLE 4 <i>Descriptive statistics of stock market and exchange rate returns – EUR denominated</i>	76
TABLE 5 <i>Mean returns and standard deviations of stock markets and exchange rate – USD denominated</i>	76
TABLE 6 <i>Mean returns and standard deviations of stock markets and exchange rate – EUR denominated</i>	77
TABLE 7 <i>Lambda (λ) parameter values</i>	78
TABLE 8 <i>Stock market and exchange rate correlations and phi</i>	80
TABLE 9 <i>Financial crises in the 90s in developing countries: common features</i>	120
TABLE 10 <i>Financial crises of the 90s in development countries: differences</i>	121
TABLE 11 <i>An analysis of banks government bailout on banks equity. Source: self, hypothetical analysis</i>	132
TABLE 12 <i>A comparative analysis of mortgage growth in the US Source US Census, various other US Official Statistics Sources and own calculations</i>	133
TABLE 13 <i>Global governance requirements</i>	167
TABLE 14 <i>Main characteristics of intergovernmental relations and government networks</i> ...	173
TABLE 15 <i>Advantages and disadvantages of government networks</i>	176

EDITORIAL

HUMAN NATURE AND CYCLIC CHARACTER OF ECONOMIC CRISES¹

Ion POHOAȚĂ*

***Abstract:** Crisis clearly distinguishes itself from the large mass of economic phenomena through its provocative force, which fuels theoretical discourse. The more harmful, the more generous the energies it deploys and consumes for explanatory and obstacle overcoming purposes. The result is that every crisis teaches us a lesson. What interests us is who writes and who learns from this lesson, and if they do. Then we try to find why serious crises, like the current one, occur once or twice in a century. What is the role that big world market players have in crisis “preparation”, onset and resorption? Do solutions originate in the state’s support or in the market? Does globalization erase national borders in such situations? How and to what extent real economy may penalize a guilty party that constantly comes from nominal economy? What are the problems raised by such an outcome for the strategy to follow and for economic sciences in general, etc.?*

***Keywords:** crisis, Keynes, truth, compromise, market, state, human nature, speculation, indebtedness, personal calculation*

***JEL classification:** E12, E44, E60, N10.*

1. DO LESSONS ON CRISIS HAVE A HISTORICAL NATURE?

In order to answer the simplistic however, we believe, easily accountable for interrogation in the title, we are first tempted to make the following simple statement: crises teach us nothing or almost nothing, since they keep occurring at certain time intervals, ruining our plans and making us start over. Or, to be more precise, we could say that they teach us something, but this lesson is useless. Why? Because our knowledge, put into perspective by historical events, will serve the generations that follow us at centennial intervals.

¹ Article published in ECTAP 5/2009 (534), pp. 3-20

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We should however remind you that, starting with 1825, the world economy has had a cyclic development. Growth and progress were not brought about by linearity, but by winding developments, by uphill and downhill evolution, by phenomena such as crisis, depression, revival and boom. Heaps of books have been written and Nobel prizes have been won on this extremely interesting subject, which is the hard core of economic theory. Economic politics inspired by this theory managed a praiseworthy and at the same time noteworthy accomplishment; it managed to smooth sinusoidal curves and basically to prevent the turning of the wave top, called expansion, into a crisis. The cycle was thus reduced to two significant boom stages and recession. Crises were avoided or “managed” to become bearable. In two historic cases however economic policies failed to avoid serious crises: 1929-1933 and 2007-200?. These are two unheard of before situations, whose extent and consequences cannot be matched by any other economic phenomenon. It is these phenomena, and especially the latter, that we have in view when trying to find the point of a lesson on crises.

We know therefore, from what others told us and from what we are currently experiencing, that the moment called crisis is a highest intensity implosion and explosion event, which includes an unmatched variety of economic phenomena and processes, and which has the largest geographical spreading and the highest temporal concentration. It is in its nature not to pass unnoticed. It is disturbing, it determines standpoints, it changes matrixes or governments, it revises and updates discourse, etc., in a word, it requires study and examination. And this is what it gets. The generation that experiences it writes the lesson down, through its most representative scientists. It should normally be passed on to be learned and considered. What actually happens is that it is historicized, packed and sent to the past to be labeled: “to whom it is interested in the subject”. Once “there”, this knowledge gets patina, becomes relative or is simply lost. If this phenomenon occurred more frequently, this knowledge would be like the words in a foreign language that you learn, you do not speak for a while but surprisingly comes back to you when you need it. Unfortunately, this is not the case, since the following big crisis is experienced by another generation, the third or fourth, and it is interpreted in another language and according to a new paradigm.

And one more thing: crisis does not teach us all the same thing. Although crisis is a sum of negative phenomena, it does not leave a desert behind it. During and after a crisis, most of the people have lost something. They learn from their mistakes and their lesson takes the form of a set of sentences that teach their followers, a century later, what they should not do to avoid danger. Others, however, learn and pass on another lesson; one that teaches you not only to survive, but to

make a profit during crises. As already explained, passing on this lesson (regardless of its nature) through time will probably be either put into perspective, or simply lost.

The extent of the phenomenon, as well as its dramatic consequences, should keep this lesson alive; it should be taught in class, as we like to put it. It should be included in a “National Economy” textbook, including success case reports as well as failure case reports, plus accounts of world crisis and the way in which national economy answered it and managed to overcome it. Such a book would round up the academic curriculum, it would give it meaning and make it more attractive, at least in some social education fields.

2. CRISIS IS A FUNDAMENTALLY ECONOMIC PHENOMENON. ITS MOMENT OF GRACE, PEAK AND SOCIAL CHARACTER

The world is **virtually** in crisis until the streets fill with unemployed people. Remaining in the virtual stage and preventing the wave from breaking in foams, by resorption, is a wise politics proof; the ultimate proof would be however preventing the wave from occurring altogether. The toughest lesson that crisis teaches us is that concerning such moments. Social breakouts are actually the extinction with sparks and tragedies of large economic latent conflicts, present in all the cycle stages but manifesting themselves through explosions in the actual crisis stage, when mass unemployment reaches its peak. We speak of fact and idea conflicts, of insurmountable contradictions between production and consumption, real and nominal economy, micro, macro and global viewpoints; between the actual events and the theoretical orthodoxy, which provides neither explanations nor solutions for what happens in the real world. It is a time when economists are accused of everything, including imposture and occultism, and economic sciences look suspicious. Before the outrageous and dramatic show of the game field occupied by unemployed people, politicians are forced to acknowledge what they failed to acknowledge apriori, namely that economic balance means nothing without social peace. And they are forced to acknowledge it because, as J.M. Keynes put it talking about the “outcome” of the big crisis in the 1930’s, “...*Men will not always die quietly. For starvation, which brings to some lethargy and a helpless despair, drives other temperaments to the nervous instability of hysteria and to a mad despair. And these in their distress may overturn the remnants of organization, and submerge civilization itself in their attempts to satisfy desperately the overwhelming needs of the individual. This is the danger against which all our resources and courage and idealism must now co-operate*” (Keynes, 1919, p.213). Keynes was an interventionist with liberal heart. He wrote these lines not out of any special fondness for the proletarian cause, but because the facts and events required such a conclusion. A good economic policy model is successful only if it is grounded on

the human factor, if its main coordinate-axis goal is full employment of the work force.

We insist on saying that such moments should be avoided, since they generally require “mad” solutions, which elude not only the economic status-quo logic, but logic in general. The choices are neither dilemmatic, nor metaphysical; they become one with and are imposed by the context. Let us consider **two examples**, which belong to the same area that made the brilliant Keynes to also write less brilliant texts. **First of all**, being preoccupied and even obsessed with finding labor market development solutions, he militates for discouraging savings and encouraging investments. Having the unemployment show before his eyes, he found investment sources and especially destination less important. He accepts any source of investment, including budget deficit (a classical dogma, he believes). Moreover, if an investment has a multiplication effect and generates jobs, it may even be an unproductive investment. According to this “logic”, Keynes states that *“...if the Treasury were to fill old bottles with bank notes, bury them at suitable depths in disused coal mines which are then filled up to the surface with town rubbish, and leave it to private enterprise on well-tried principles of laissez-faire to dig the notes up again... there need be no more unemployment and, ...the real income of the community, and its capital wealth also, would probably become a great deal greater than it actually is”* (Keynes, 1970, p.147). In other words, Keynes is trying to say that the streets filled with people are so dangerous to the future of social peace that even useless work is acceptable as a “better than nothing” alternative. Taken out of their context, Keynes’ lines are simply absurd. We understand him only if we consider the time and the context this statement was made, which made it possible, in a country with healthy traditions that gave Europe princes, confronted with an explosive unemployment rate of up to 60% in the industrialized areas of the Ruhr basin, and we refer here to Germany, for a person such as Hitler to become “democratically” the country’s ruler only because he promised jobs. He actually kept his word, sending them to build roads and weapons. History has placed Hitler where he belongs, next to Stalin and other outrageous tyrants. The time of such statements is and must however be considered from this viewpoint, when such a crisis synthesizing context may be meaningfully “fructified” for the future of a nation. **Secondly**, Keynes is also known as the author of a childish reasoning: what does and what does not economy have during crisis? It has excessive work force and unused capital. It does not have money, real money, as the crisis is actually a crediting money crisis. And, forcing his way into the following conclusion, he suggests loud and clear that the gold standard is an annoying “barbarian relic”. Economy must be given what it misses and the printing press seems the perfect solution. Such reasoning is still encountered today, encouraged by the current crisis (see Krugman, 2008). The ones who can afford it will make such a

statement. The choice between a visibly “painless” inflation and unemployment, which can only be an explosive tragedy, also requires such “mad” solutions.

3. CRISIS - MOMENT OF TRUTH AND COMPROMISE

Crisis is a moment of **truth** to the extent it put things where they belong; it mainly places nominal economy, made larger by volatilization, on the fundament provided by real economy. It is a time when the institution of bankruptcy is called to drain and clear the ground, to do its job, to take out of the game the players who eluded or gave up good and healthy informal and formal practices, the ones who, selling illusions, not only compromised the game, but also altered the results with their poisons, turning the GDP in a huge and deceiving roll of cheese full of holes. In order for this to happen, the **market** needs to be left to do its job. Or, this happened neither in the 1929-1933, nor today. In other words, the sanitation mechanism is transformed and perverted.

Crisis is a moment of **compromise** because the fundamental institution in charge of continuously arranging and rearranging competitors depending on their results is seriously questioned. From this point of view, the ideas of the studies after 1929-1933 are not fundamentally different from the current ones. We find that then, like today, we developed on the right but we park on the left to find solutions and find our way out of the deadlock. And, once here, we call forth the presence of the **state** as the ultimate authority able to reconcile what has proven irreconcilable. We feel we should point out that even the purest liberals, starting with Smith, Ricardo, Mill, Locke or Ferguson and ending with Mises, Hayek, Friedman, Buchanan, Hazlitt or Rothbard, did not think that economy and society as a whole could work with the state intervention. In a lawful state that also forces you to see and notice what cannot be noticed – the general rules concerning all and each of them – they offer the image of the *Great Society*, a picture of the civilized world, of a world that reached prosperity and welfare not by the support of the state and interventionism, but by means of the liberal train. The market has always been the fundamental institution that made it possible for the “*human effort to flourish*” as Mises synthetically put it; an institution which, together with private property and entrepreneurship freedom, define free world; an institution with strong optimizing features that forces individuals to take out only what is good in them in order to remain in the free competition game and also to support adjusting and reconcile individual action plans through the price feed-back mechanism (Hayek, 1990). Nevertheless, at times of acute crisis, the market is pointed at incriminatingly, when it should be left to clean and penalize excrescences and deviations from the general rule of the game. The actions taken are perverse and irrational. The market is reprehended and state interventionism if called forth and glorified. Instead of being left to live its moment of truth, economy is subjected to the cruel game of

compromise. Why? Because it is now that can be noticed the perversity of this necessary harm called forth to “help”, the compromise with the state. Compromise and ultimate meanness, because these are its moments of grace. This is the time when it shows what it knows best: it privatizes profit and socializes loss. Now it is its chance to appear as an abstract entity beyond and above the people, the large category of losers, and close to the few winners, without risking anathema. This happens because in these circumstances asking the state for support and regulation seems objectively necessary; tragic reality requires it. The “arguments” supporting its help are equally numerous and perverse.

The spectrum of unemployment, generated by an organization’s possibility of going bankrupt (companies, banks, insurance companies), weighting heavily on the contractual chain of reproduction, is a primary reason for economic analyses. These are “so large” that the USA government cannot afford to assist to the macro and global economic imbalances or to the social effects of the potential bankruptcy of companies such as Bear Stearns, Fannie Mae, Freddie Mac, Lehman Brothers, Merrill Lynch, Morgan Stanley, Goldman Sachs etc., the same way that the Benelux countries cannot be indifferent to what would happen if one of the biggest European banks, Fortis, collapsed; the same way that the Romanian government feels obliged to make waves in relation to the potential problems of the “Romanian” banking system, although over 90% of its assets are owned by Austrian, German, Italian and Greek banks. This means that governments cannot afford exposure; the lesson of the market is too tough and would certainly and irremediably render them unpopular. This is why they interfere and, via some authorized voices, they implement “compensatory mechanisms” generated, allegedly, from beneath market coordination. And therefore, they either nationalize (the Fortis case) or “take control” (the Fannie Mae and Freddie Mac), via the central banks (FED in the case of the USA), grant loans by proportionally taking over a portion of the shares package, inject billions of dollars and Euros on the market and, finally, buy back the negative assets of some endangered banking or financial institutions. And all these under the pretense of the huge “responsibility”, of the concern for unblocking or preventing the stumbling of economy and of restoring the necessary faith for the normal development of business. And how can one gain or regain trust if not by giving a helping hand to the great ones which, simply due to their specific importance, design the anatomy and physiology of economy?

Another argument refers directly to the **endemic market fundamentalism**. Stiglitz, for example, does not shrink from declaring that “*neoliberalism is dead*” and that the current market economy is nothing but “*a system of corporate wealth, protected by market economy*”) (Stiglitz, 2008). Not believing that deregulation and liberalization lead to efficiency and growth, the Nobel prize laureate is willing to acknowledge, by comparison, a certain superiority of socialism in relation to

neoliberalism “*Socialism takes care of people...neoliberalism helps corporations, not people*” (*Ibidem*). When an authorized voice, one that received the Nobel prize, sets the choir of anti-deregulation, it gathers up, effortlessly, the necessary team. And this is strong, in our case too. The philosophy of deregulation, which started with the Washington consensus, with the excessive rendering flexible of the labor market, the opening and the liberalization of the capital account, the imperfections of the financial market, doubled by the weakness of credit policies, etc., become targets that consume high quantities of energy. In a synthesizing sentence, functioning as an explanatory thesis for all the damage caused by the current crisis, the well known voice of the aristocrat of thought and writing in the field of Romanian economy, that of Daniel Dăianu, puts it bluntly: “the main cause of this crisis consists in the insufficiency and inadequate regulation of the financial system. By this, adds the author, I also refer to the effects of the *Phil Gramm-Leach-Bliley Act of 1999...adopted by the USA Congress, and which produced another wave of deregulation of the financial industry, leading to the appearance of several “synthetic” products (derivatives), very little comprehended in terms of the degree of risk they involved*” (Dăianu, 2008, p.5).

This would be the primordial cause, which tainted and brought, via a series of equally culpable transmission mechanisms, derivative products, harmful and abnormal in their turn: the transformation of loans into bonds, the disregard of a minimum level of prudence when taking risks, the misrepresentation of the evaluation operations performed by known rating agencies which concealed some collateral payment obligations – CDO or CDS, or of some unrestricted speculative and indebtedness operations such as leveraging, remuneration mechanisms and schemes for the persons with power of decision in some banking, financial or economic institutions etc.

Once entered in the analysis perimeter where we are invited by mister Daianu, it is not polite to question his judgment. This is inappropriate and illogical because, we repeat, inside this matrix, reality, with its obvious stubbornness, shows that this is how things are. The thing is that, if we step outside this perimeter, things look different from the surroundings. Briefly, “the blind faith in the efficient operation of the financial markets” and the lack of regulation are not responsible for all the things that surfaced following the crisis. As a matter of fact, an argument against the opinion according to which we are facing a crisis of open capitalism, caused by too much deregulation, comes from the very inside of the system struck by the crisis: Fannie Mae and Freddie Mac were not, by far, deprived of regulation and supervision and, despite all these, they were considerably struck; at the same time, most speculative funds, such as hedging, oases of almost complete deregulation, do not experience problems and are not threatened by the crisis. **We believe** that now, just like in '29-'33, the primary cause is not an excess of *laissez-faire*, but on the

contrary. **The crisis is not a manifestation of a market and deregulation surplus, but of a market deficit.**

Let us be clear. The market has never been an anarchical construction, but a game with well-defined rules; with numerous powers, as well as with imperfections. It appeared as a fundamental institution which serves as a solution to the unwanted evil, which exists within man. An intimately human construction, situated at the intersection point of the difficulties and counter-difficulties that define man and that “send” him, instinctively and objectively, on the land of exchange because “man almost always needs the help of his fellows” (Smith, 1962, p.13). And it does this because only there, on the path of exchange and of competitive markets, will society stratify and position each man where he belongs, according to the known criterion of consumed work. This is also the opinion of Mises, who sees the market as a fundamental “institutional arrangement”, with seen and unseen rules, a machine which efficiently consumes human energy, facilitating cooperation with the ultimately individual manifestation of action (Mises, 1985). The same view is shared by Buchanan, who sees the market as “that institutional process within which individuals interact (voluntarily) for pursuing individual objectives ((Buchanan, 1986, p. 87). Another leader of economic thinking, Hayek reveals the intimately contradictory meaning of this institution which, together with private property and the freedom of action, defines the free world. This is the normative component, through which one resorts to the market as a means of **coordination** of human activities; a means of optimizing the human effort, a “concrete abstraction” through which individual plans are adjusted (Hayek, 1990). Here is where conflictive reality finds its own compensatory means, thus showing that it is not irreconcilable (Hazlitt, 1988).

We could continue, in order to prove, once again, that the market is not the best possible solution but, nevertheless, humankind has yet to invent something better. If a single example contradicted this hypothesis, we would accept the necessary and healthy doubt. But, at the same time, the centralized plan and socialism, as portrayed by Stiglitz, have not paid off either.

We are certainly aware of the risk of our laudatory exposure of the market being stopped by means of a down to earth sentence: well, well, we know all these, but look that the excessively free market has brought us! We return to the topic in order to clarify, once more, a couple of things.

First of all, the most zealous supporters of liberalism have come to realize that the market does not suffice for itself; that its normative valences do not manage to relieve tensions in a complex world. It needs rules. And the market has always functioned based on formal and informal rules. The more the economies grow in complexity, the more they resort to additional rules. The market of the United Europe is an example; one suffocated by rules. In other words, the philosophy of the

open market accepts regulation; it accepts rules, imposed via normative means, and which establish the behavior poles of actors, the cooperation terms, the nature of the goods and services that enter the competitions as penalties for those that do not play by the rules. If we accept this premise, an extra level of regulation rendered necessary by a special circumstance should not lead the discussion to the state interventionism – market dichotomy. Regulation is normally performed by the government and the state, the main actor. In reality, regulation must not, within the requested and natural limits established only by the complexity of free competition, “fall” beyond the market. Within the natural limits it is assimilated to the market philosophy *per se*.

Secondly, the free market is not populated by all kind of actors and all kind of goods. The ones that elude or break the rules are eliminated. The damaged reputation and the ailing solvency resort either to the civil or to the criminal code. If we view things from the material perspective, the free market does not intend to turn the consumer into a sovereign by intoxicating him with perishable, damaged or harmful products. Their circulation is not regulated, it is forbidden. The same should apply for the circulation of financial products that are packaged and re-packaged until they become “harmful”. The regulation of the financial market should establish the normal course of products that can circulate and should exclude those of financial engineering schemes. We consider that, not even with the strictest regulations will the harmful products of this market entirely disappear. As long as such products are expressly requested, the final path of punitive measures will be similar to the path where we ended up by forbidding alcoholic products (vodka) in Gorbaciov’s Russia, of drugs in Asian or European countries, of human trafficking or organized crime. Although we wish we were not right, the intimately and fundamentally “human” nature of the crisis has led us to this conclusion, as we intend to show in the following lines.

Thirdly, the market is a land of competition. Classics, as well as neoclassic, perceived it as a struggle between numerous and equal opponents, in term of competitive force. Such a competition can be won; with the help of high quality and low prices. Pure and perfect competition, as well as Hayek’s catalectic order, was portrayed as the optimized images of the free market. But, before reaching these unimaginable borders, we have to deal with the world of real cases, of competitive markets among unequal opponents, of the struggles between the big and the small, of monopolistic competition. Via its very nature, monopoly has always been an assault upon the market. When it gains the dimensions of a corporation whose turnover exceeds the GDP of a developed state, the problem of regulation attracts more attention. When a small number of huge giants such as AIG, the largest American insurance company, or Fannie Mae and Freddie Mac, which own (owned) approximately a half of the mortgage loans granted to American consumers, starts to

collapse, the reaction of some officials that are responsible for the economic safety and peace of America and of the world makes sense. We can understand why a Henry Paulson (general secretary of the Treasury of the United States) or Ben Bernanke (chairman of FED) is restless and sends alarming signals: such giants cannot die alone, their ramifications in the entire world economy are much too numerous and it is impossible for their drift not to affect or to cause significant problems for the markets in the entire world. If, under normal circumstances, the government – monopoly relation does not pose any problems, since the joining of the interests of public and private finances helps them cohabitate, things change in times of crisis. Called to perform its duty, the government observes that it has to solve a problem which would naturally be the task of the market. Bankruptcy eliminated from the game a partner that broke the market line. Meanwhile, this partner was assisted by the state in order to abandon the premises of free competition. Its power of negotiation exceeds the limits of the market. The government itself is powerless when it comes to “its own child”. The myth of the powerless state (Weiss, 29) becomes the reality of the powerless state. Its surgical extraction from the consequent is not possible without a series of catastrophic consequences for the whole. Actions that can be easily performed by the scoop of bankruptcy prove to be unconceivable and without traumas through the forceps of the state. The only solution is for it to compromise itself. And it does, by helping “its product”, beyond and against the market.

Fourthly, and **summarizing**, the Washington consensus was not the commencement of the evil. Deregulation *per se* involves a surplus of freedom, shifted from the state to the market. And this surplus of freedom has turned out to be undisputed, emulative and innovative for the entire range of human activities. Incidentally, the initiator of the famous consensus, John Williamson (1989) came up with a set of measures, ten, to be specific, meant to support the developing countries that were affected by the crisis (also see Boyer, 2001). The critical attitude of some economists or economic analysts such as J. Stiglitz or G. Soros assimilated William’s statements, in terms of nature and meaning, to the fundamentalism of the free market. It is true that the liberalization of trade and deregulation were among the ten recommendations. But, from here to interpreting these prescriptions as promoting a kind of neoliberalism which transforms the market into a “fundamentalist” institution, the road is long. Following this path, sent under the form of doctrinarian orientation, in complete confusion (see Rodrik, 2006), China and India kept pace and succeeded. Other states that adopted the same fundamentalism have to deal with crisis and failure. As concerns the developed world, under the empire of the philosophy of this consensus, seen as a total opening towards the market, the years that preceded the crisis were among the best. It is highly ungrateful and hypocritical to blame the engine when, too worked up, one

encounters an obstacle. You can fix the engine and go on, but you cannot replace it with a scooter. And fixing it means indeed regulation, at the same time staying in the proximity of the engine. In other words, not all regulation measures are generated by the market. On the contrary, we remain inside it and we rethink its rules without doubting its stimulating, optimizing and auto-regulatory features; and the capacity of producing wealth, undisputed and incomparable with the wealth of other institutions. Following this idea, the imperative of the massive intervention of the state in order to fight “the blind market forces” has two risks: 1) the risk of contributing to the collapse of an institution which does not deserve such a treatment, not even in moments like this; 2) the risk of contributing to the irreversible compromising of the referee, and especially of the state.

At present it is difficult, if not impossible, to deconstruct an analysis which, via its conclusions, requires the presence of the state. We cannot persuade people that the firemen are not needed when the fire is already burning. It would have been better for the spark not to ignite anything; it would have been better to let the market solve the problem before stirring panic. After the fire is ignited, the intervention becomes “necessary” (Krugman, 2007). The problem is not why the state intervenes at this moment, but how we got to the point where such an intervention is necessary. As we have already stated, the regulation and supervision deficit was not the cause; and neither was the demolition of the banking legislation, with all its consequences (simplification and proliferation of agency activities, financial “innovations” in relation to the securing and creation of synthetic products, positioned with great outputs, but irrelevant for the substance of the wealth in itself, the policy of cheap money, etc.) or the emphasis, for two decades, on a single paradigm, that of the deregulated market. The cause of the causes sends us back to the beginning of the ‘80s (Cifelli, 1986; Diaconu, 2005). Then, with Reagan starting off as president, the doctrine of the offer was successfully implemented: (which also took from monetarism the idea of controlling monetary emissions, initiated by Friedman). The experiment took place in a context in which the Asian (mainly Japanese) competition had become torrential and was suffocating the American market on its own territory. Among other measures, reaganism also meant the putting into perspective of the known Sherman Law – the antitrust law of 1890 (May 1987), a set of antimonopoly laws concretized in normative acts aimed at regulating competition, price policies, mergers and acquisitions. The law wished to express the will of the public opinion, of putting an end to the monopolization tendency of the American economy and of preventing the domination of the automobile and oil industries by two important families, Ford and Rockefeller. Abuses, discriminatory practices, the control of the price policy, the creation of companies hidden under the umbrella of large monopolies, etc., were deemed to interfere with the spirit of free competition and were disapproved by the public opinion. These were the grounds of this Law.

The government did not have to regulate the market, but the abuse against the market. The antitrust law was primarily aimed at preserving free market competition. It required the intervention of the government in order to fight, with the help of legislation, against the main enemy of the free market – the monopoly. It is true that, once invited, the government followed the trajectory discovered by Mises some years later, by adopting the formula of an objective legislation according to which, once the state is invited into a specific segment, the economy, as a whole, will “*require more and more governing*” (Mises, 1944). Starting its journey in order to put into practice a social option, the prevention of monopolies, the government started to feed itself from the very substance of economy, by means of a gigantesque growth. By taking over and claiming responsibility for a series of actions and activities that were formerly the exclusive object of the market, either because such activities were denied by the market or because the state officials expanded their “responsibility” to several domains (Buchanan & Tollison, 1972) in order to justify their jobs and salaries. It does not surprise us that, in 1988, the American government were described as the biggest: employer, spender, owner, tenant, insurer, creditor, debtor and customer (Frederick and others, 1988). The growth tendency of the American government continued to progress from 1988 and until 2008. Despite all these, in 2007, when the crisis started, the USA government did not prove to be sufficiently powerful to counterbalance the power of some giants; of the companies that, unhindered by the antitrust law, managed to occupy either the entire economy or large pieces of it (possibility hinted at by R. Coase in its famous article *The Nature of The Firm*). The state can no longer fight against such economic, financial and banking giants. They are aware of this and defy; either by sending their representatives for state help with the helicopter or by honoring their managers with bonuses from the borrowed money.

If the state is called to regulate, this is what he has to do: reestablish the rules of competition, defeat monopoly, reintroduce the spirit of free competition, which will lead to low prices and high quality. In other words, it has to give back to the market the role and the place it should have. If the market needs additional rules, they must concern its legislative coherence and the stability of the business environment. And if some harmful products already exist on its territory, they must not be regulated, they must be forbidden together to the other products that “move” them. Thus, we repeat, the risk of the state being compromised is very high. And this is due to the fact that, during times of crisis, more than during uneventful times, the state is wooed in order to guarantee contracts and in order to become corrupt; in order to offer safe jobs to those who failed in private businesses, ending up in bureaucracy and paralysis. Making use of its redistributive mechanisms, the state takes from those who have played by the market rules in order to make gifts to those that should be punished. The principle of equivalence is dismissed in favor of

manipulative practices: the money does not go back to those from which it was taken, but to those which created holes, to companies that do not observe the rules of the game; to artificially built companies which will, in the future, compete with the ones that can face the crisis without the help of the state.

4. HUMAN NATURE AND CRISIS REPEATABILITY

There is one hope-giving piece of information coming from crises history, namely that they are transitory; they come, they create serious trouble or disorder and they leave. A new cycle begins when they leave the scene. Regardless of its nature and duration (whether it is annual, decennial or centennial), a cycle always reaches a peak - crisis. What happens today, comparable only to what history witnessed from 1929 to 1933, belongs to the long centennial Kondratieff cycle. Should we be tempted, which is only natural, to compare the current crisis with the one that occurred at the beginning of the 20th century, we have every reason to believe, at least out of inertia, that this crisis also has a beginning and an ending. When it comes to establishing temporal landmarks only the big world players have a say in the matter. It is not by accident, and we intend to prove that, that the USA were the triggering factor of this phenomenon in both cases. The ending will undoubtedly be dictated by the same country. Contagion naturally spreads quicker in a globalized world. For these very reasons, this crisis requires adequate global or globalized answers. Despite its different amplitude and higher spreading speed, the primary deadlock-breaking impulse is still present: the “center” looks for refuge and solutions at the expense of the “periphery”. Regardless of the indebtedness level (states to states, companies to companies, companies to states and vice-versa, and all the above to the IMF, WB or EBRD) and nature, putting an end to this crisis depression, despite the cooperation and aggregate effort calls, does not break away from the way of the world; a world of domination, having asymmetrical and irreversible effects, precisely as Fr. Perroux inspiringly described it, that is from the big to the small and never the other way around. The “accuracy” of this phenomenon, able to cover up any power abuse or discriminatory practices, turns indignation into futility. The world has gotten so much used to this way of the world, that the “periphery” states are “rightfully” and joyfully waiting to be announced when their ordeal is over.

It is undoubtedly true that this comparison would also reveal many other differences and similarities between now and then. There is hope lurking in the background: the current crisis should be shorter. The existing technical and material resources, intervention means and specific know-how entitle us to believe that. Moreover, beyond a certain limit, which is difficult to trace econometrically, the interested parties in overcoming this phenomenon are increasingly numerous and bigger. Leaving aside for now the technical-economic and political-financial causes

accounting for and supporting this phenomenon called crisis, we focus on another cause, which accounts for, from a different point of view, both crisis occurrence and repeatability. We are trying, in other words, to answer a perfectly legitimate question: will what happened between 1929 and 1933 and what is happening today also happen in the near or distance future? Will this phenomenon occur again at the end of this century to support Kondratieff's beliefs (1984) as well as the suppositions of other economic cycle theoreticians?

We dare give an affirmative answer, while not grounding our beliefs on technical causes. We rather think that it is human nature that actually accounts for the repeatability of such phenomena, which, due to their hideousness and devastating and offsetting effects, should be doomed as "unique".

We do not claim that we do pioneering work when we say that human nature may account to a great extent for what is called economic cyclicity. Keynes' psychological motives that "urge" individuals either to refrain from spending or, on the contrary, to increase their consumption appetite prove that the great economist was a good connoisseur of the human nature. People's fondness of investments or consumption, their preference for cash, "average opinion" evolution, credit condition, "fundamental psychological law" accounting for individual consumption behavior depending on income evolution, caution, transaction and speculation motives, etc. Here are only some of Keynes' concepts focusing on human nature.

Quite a large number of economists still ground their economic crisis studies on behavioral patterns (as adjustment responses to euphoria, panic, excess, indebtedness appetite, etc.), invoking greed as the all-comprising cause of crisis-generated chaos. Charles Kindleberger is a good eloquent example. Robert Aliber, Robert Solow, with whom Kindleberger actually wrote the famous book *Manias, Panics and Crashes: A History of Financial Crises* (2005), are greatly supported, in their opinions, by world known economists such as Paul Samuleson. Alan Greenspan, another highly respected voice in the crisis analysis world, states, post factum, after the onset of the current crisis, whose origin he is actually familiar with, that "*...these economic and financial cycle models do not fully capture ... the innate human responses that result in swings between euphoria and fear that repeat themselves generation after generation with little evidence of a learning curve. Asset-price bubbles build and burst today as they have since the early 18th century... To be sure, we tend to label such behavioral responses as non-rational. Current practice is to introduce notions of "animal spirits", as John Maynard Keynes put it. But forecasters' concerns should be not whether human response is rational or irrational, only that it is observable and systematic. This, to me, is the large missing "explanatory variable" in both risk-management and macro econometric models*" (Greenspan, 2008, p.522). When describing the phenomenon,

Greenspan also uses two other concepts: “irrational effusiveness” and “euphoric bubbles”.

We did not use such a long quotation to comment upon it. It speaks for itself. We are only interested in the “explanatory variable”, which over-technical explanation leave aside, but which is fundamental if we want to grasp the very sources of crisis repeatability. The euphoric bubble’s historical nature draws our attention; it gradually fills with highly collectively irrational phrases and suddenly bursts, destabilizing everything around it, without however acquiring the strength of a lesson worth learning.

What we are trying to point out here, in a world of ideas created by the names quoted above, is that a propitious **environment** makes crisis triggering possible. It results from the action and reaction of two categories of players: one that makes offers and another that stimulates demand. An assumption is necessary for an accurate understanding of the phenomenon: today, just as in the 1929-1933’s, the crisis actually started on the **loan money** field. Although the actual events in the 1929-1933’s suggested especially an over-production and consumption crisis, and in the 2007-2009’s a real estate market crisis, the panic on Wall-Street actually meant the same thing in both cases: the breaking of the loan trust chain. Built step by step, the “bubble”-permissive environment of over-packed and excessively-secured products was created by joint “contribution”; suppliers and buyers joined the dance of madness, in the thrall of a game built of trust and “human weakness”. Post factum, after the frenzy diminished and the game proved to be a sand castle, the guilty party is instinctively looked for and anathema is cast: on the stock exchange market that made it possible for illusion to be sold at tempting rates; on the banking system, which opened up to casino-type stock exchange operations and poisoned the market with uncovered products; on insurers, which gambled their payers’ money on the stock exchange market; on the obscure world of intermediaries, which facilitated the systematic emergence of synthetic products; on the rating agencies, which orchestrated the show giving good grades to doubtful initiatives, etc. If we are open to minimum objectivity, we should admit that stock exchanges, banks, insurance companies, etc., are not entities that breed by themselves. Their inputs and output call to the game a smaller or higher number of participants. Individuals, households, companies, dealers, banks, insurance companies, stock exchanges, investment funds, pension funds, public institutions, etc., become actors on this stage; they join the game, each bringing their own particular contribution to it, and at the same time taking the same excessive risk and going deep in debt.

Synthetically speaking, a human being’s reaction to risk takes the form of aversion. People do not like risks. From this point of view, M. Weber classified individuals in two categories: the ones that “eat well”, and the ones that have a “peaceful sleep” (Weber, 1993, p.28). To the first category, the businessmen, risk is

the price for the desired profit. The other category, significantly bigger, includes passive investors, passive depositors who are not disturbed by any possible dialectics brought about by the profitable investment involving risks and stress or bank deposits with a safe interest equation; they prefer to be passive money savers in the absence of any entrepreneurial vocation. That is how Say, Schumpeter and, more recently, Knight (2005) put it. In short, taking risks and living with uncertainty is not everyone's "game". This happens in normal circumstances. But the time before the crisis is nothing but normal. It makes everyone leave their passiveness and invites them to invest, within the limits of their own budget and psychological structure. When the loan offer is irresponsibly permissive, it makes no sense to remain a passive money saver. When you can take a loan with nothing but your ID card, when you are not asked what your possessions are and if you are able to provide any surety, when you are allowed to draft your own refund schedule, to pay back whatever and whenever you want, if, last but not least, no one needs to vouch for you, it is madness not to get loans. And you do it not because you really need it, but because you want to play the market. Why not buy two or three houses and as many pieces of land, even at extremely high prices, if you can sell them and make a profit before long. The price is not important. What matters is the positive difference obtained by resale. Everybody has this purely mercantile logic: creditors, who transfer the risks of unsecured loans to intermediaries; intermediaries, who secure mortgage loans; other intermediaries who provide loan security; commercial and investment banks that join the casino game tempted by quick earnings, preferring massive short-term debts and forgetting that in the long run they may walk into a trap; individuals or households that find it irrational not to take advantage of such offers. Risk exposure is no longer a problem because risk itself is underestimated. This picture is made whole and more clearly defined by opportunism, limited rationality and incomplete information. When all these are endorsed by scientists, the pleasure of living excessively well, even briefly, without worrying that you may be penalized in the long run is carefree. And this exactly what happened. In the country where the crisis originated, Oliver Williamson, agreeing with Herbert Simon's opinion (1997), replaces *homo economicus rationalis* with an agent whose rationality has certain limitations, derived either from the latter's inborn features or from communication and reformation difficulties. Moreover, by defining lapidary opportunism as "the pursuit of one's personal interest by cheating", Williamson opens the door to behavioral deviations having a false appearance of normality: deceit, lie, false promises or threats, manipulation, provision of distorted information, etc. (Williamson, 2005). Acknowledged as familiar human behaviors and theorized by excellent writers, such behaviors composed the background announcing the crisis. Business reputation or ethics have become obsolete. Agents with healthy behaviors were "forced" to understand that their tools were taking them

out of the competition, so they joined the game; they got into debt, played the market, provided surety, security, blew bubbles and felt happy; no stress and no fears.

On the other hand, indebtedness and indebtedness level have always been human, and economic, we might add. Regardless of its level, individual, company, nations, etc., and up to a certain point it did not prevent progress. On the contrary, spending more than you earn has sometimes proved, in different historical circumstances and geographical areas, beneficial for individual and community development. When their own resources failed, business entities borrowed then, and “living off diseconomy” as Keynes said, borrowing and spending now relying on future income, proved a trend of modern economy. At least two things draw our attention if we want to keep dwelling on the subject.

First of all, the line or point up to which indebtedness is “normal”. In principle, indebtedness is considered from the viewpoint of and as deriving from the income-expense relation. When one’s expenses (consumption or investments) exceed one’s forces, loans and indebtedness are the solution. In other words, indebtedness depends on the current and future income. From this standpoint, literature tackles two opinions; **one** belonging to Keynes, according to whom consumption depends on the current income swings, which means that additional money would satisfy “cash hunger” and would make loans cheaper; the **other** due to Milton Friedman who believes that only “permanent income” –the swing trend coming from a long period of time- has a say in the matter of human consumption or saving behavior. The latter states that economy stands intrinsic chances of stabilization: in the long run, depending on the “individual life plan” and with higher income, agents’ appetite for cash (savings) increases. In other words, a temporary and occasional cash infusion is not even considered; it is already insured by the very normal operation of economy, an economy which, given its normal growth, also needs a normal proportional growth of cash (Friedman, 1960). Even such reasoning, regardless of its nuances, does not drive indebtedness beyond supportability. As concerns the precise delineation of this supportability, which should separate normality from madness, econometric calculations are still being made. Beyond such a limit, people will undoubtedly fail to meet their payment obligations, and insolvency and bankruptcy will not be far. Determining the critical mass of agents whose indebtedness would jeopardize an entire economy is less clear and easy. We should add that, even if financial econometrics accurately succeeded in timely foreseeing and reporting the occurrence of a serious crisis, it would stand little chance to be taken seriously. When everybody is in a frenzy, they do not have time to listen to negative signals? When at a wedding party, people listen when you say that the bride was stolen, but nobody will listen if you say the groom is dead. The current manifestations of this crisis entitle us to say that the line has been crossed. In

2005, two years before the crisis' onset, America had the highest indebtedness rate. At the same time, just as in 1933, the savings rate was negative. Despite that and despite all the warnings, loans went sky high. The offer was so generous that even subprime loans with profitability rates slightly (2-4%) exceeding those of the government bonds were successful. The failure or delays in paying back the loans, bank inability to make payments, stock exchange crash, incipient bankruptcies, etc. announced an imminent crisis and the destruction of a system. Nevertheless, the show went on until the giants started to fall. The individual life plans tailored according to the Nobel price winner Friedman's "permanent income" were not considered. Keynes' "animal spirits" have accounted for more.

Secondly, indebtedness, regardless of the entity undertaking it, has the same meaning: you borrow to spend more than you earn. The assumption according to which indebtedness capacity is limited is also common. Just as the statement according to which going into debt is not in itself a positive thing. There are high chances are you may feel more comfortable as a creditor than as a debtor. Also, the concept of deficit has timeless validity when defining the difference between inputs and outputs. Minor differences only lie in units of measurement, settling methods and especially in the consequences deriving from indebtedness. We say nothing unheard of here. We should bear however in mind that consumption or investment loans, based on future income, have been increasingly higher and accompanied by increasingly significant risk exposure of all the economic game players. The way in which inborn aversion to risk influences financial flexibility, risk acceptance during boom periods, unflinching trust in future income, temporary financial imbalance spreading corroborated with economic strain stages, the "support" provided by the financial and banking system by its own examples (serious reduction of their own share in the total capital) etc. say a lot about the trend described above. We believe that debt consequences and coverage deserve special attention. Within an averaged-sized entity (family, company, etc.) indebtedness and debt settlement have the same address; the one undertaking the loan risk is also the one that, after crisis onset, is penalized for having dared to cross the danger line. His "pain" is a feed-back of his own wrong calculations. This does not apply to large corporations or to the state. Their mistakes are not always paid for by the ones who made them. Massive state intervention, regardless of the manner in which this is done, actually means a socialization of losses. Neither great corporations nor the state can become bankrupt without avoiding serious imbalances. Also, in these cases, it is actually an innocent "human nature" that pays for the mistakes of another "human nature", who undertook great risk exposure. The fact that not only bubble makers, euphoric boom people, but the entire population is involved in paying for the mistakes of others, turns crisis not only into a psychological certainty of the fact that risk underestimation collides with the innate risk aversion, but also into a moment of

maximum social strain, when the very basics of human cooperation are shaken to the grounds.

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RESEARCH PAPER

THE CRISIS AND CENTRAL BANK REACTION

Silviu CERNA*

Abstract: *The world economy is in the face of the strongest crisis of the last seventy years. This crisis is still ongoing, but authorities in many countries have already taken a series of measures to mitigate the effects. In this fight, the central banks are the first line.*

It is still too early to draw any lessons from the events taking place, but a reflection "sine ira et studio" over this experience is already possible.

This paper aims to analyze this experience through the policies implemented by central banks to cope with the crisis.

Keywords: *central bank, crisis, liquidity, regulation*

JEL Classification: *E52, G01*

1. THE NATURE OF THE CRISIS

The global financial crisis emerged as a liquidity crisis. The first symptoms manifested in early August 2007, consisted of severe disturbances in the interbank market. These turbulences consisted of abnormal profit margins, reducing maturities, ruin and even disappearance of some market segments. By contagion, these tensions have affected even the non-financial companies and the financing of the real economy.

The crisis has also emerged as a securitization crisis. Securitization is a very old financial technique, which has been used successfully in the past thirty years for credit refinancing for the purchases of automobiles, in consumer credit, mortgages, etc². However, in the last decade, this technique was applied in doubtful conditions:

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² - The securitization consists in converting claims in the asset side of the of credit institutions' balance sheet (eg, mortgages) in negotiable securities. Claims are arranged in packages homogeneous in terms of maturity and risk. These packages are given to a financial investment firm, created *ad hoc* and with a limited lifetime (*Structured Investment Vehicle - SIV*), which then sells them to investors as bonds. This allows banks to automatically improve their capital requirements and to restore credit

for the financing on the short-term of complex structured products, with zero liquidity and uncertain value - usually determined as a rule, not by the market, but by theoretical models³.

By their nature, such financial mechanisms are vulnerable and fragile. However, this fragility has been obscured by abundance of liquidity on the market and by the actions of certain financial intermediaries such as *rating agencies* and *monoline* insurers⁴.

In situations in which money abundant, even claims of mediocre quality or uncertain value may be easily refinanced. Moreover, as those claims are "painted" with a favorable *rating* and an insurance warranty. But, at the first failure in repayment of the subprime loans, all these financial engineering have collapsed. Liquidity disappeared more quickly than it appeared, and the grades of the rating agencies' were damaged in a cascade, with a speed and with a brutality that the techniques used and the information available did not allow anything to reveal. Finally, it became clear that the *monoline* insurers' resources were insufficient to enable them to cope with the commitments they have undertaken.

In these circumstances, it became clear that, far from being divided within the whole system, the risk of loan default is focused, explicitly or implicitly, to certain institutions, mainly at major investment banks. Hence, successive waves of devaluation of structured products, devaluation imposed by accounting rules in force, but which gave rise in turn to doubt about the solvency of financial institutions, have imposed restrictions on access to liquidity and caused decreases in asset prices.

The collapse of the structured securitization has shed a light on a fundamental reality of the contemporary global economy. Financial innovations in recent years have served, in large, not as a measure for better risk management and allocation, but for the increase in the volume of lending without an adequate capital ratio (*the leverage effect*).⁵ Increasing debt resulted from here is a phenomenon generally manifesting in forms like: enhancement in the total value of bank assets, multiplication of vehicles registered in off-balance sheet positions, which usually requires no own funds, having therefore an infinite "leverage effect", use of limited

potential. Interest rates and payments due by the SIVs are based on financial flows generated by the initial loans.

³ - A structured product is a product designed by a bank to meet the needs of its customers, consisting, usually in a combination of optional operations (options), swaps, etc., based on the parameters not listed on the market and using various complex techniques of financial engineering, such as securitization. Such a product is not quoted on the market. Its price is determined by mathematical models that describe the product in terms of time and by various market developments.

⁴ - *Monoline* insurers are insurance companies specialized in taking the risk of credit default in the issuance of bonds or operations of securitization.

⁵ - *The leverage effect* reflects the degree of indebtedness of individuals, enterprises or financial institutions, in order to purchase of a product or an asset.

capital of *monoline* insurers in order to guarantee a significant volume of structured products, etc.

A feature of the leverage effect is that it increases both gains and losses. Thus, the real estate *boom* has allowed the U.S. a long time of very profitable investments. However, the reversing in the trend has caused significant devaluation of structured products, which exceeded, for many institutions, the level of own funds. The limitation in liquidity, together with the inability to refinance them, has led some of the leading institutions to bankruptcy.

The effects of the international financial crisis have passed on to the Romanian banking system, as well. Currently, the system consists mostly of banks with a majority of foreign capital, or branches of foreign banks, which have direct or indirect exposure (especially through U.S. *monoline* insurers) to structured products. As a result, the parent banks have made some significant devaluation of their assets; have suffered the impact of liquidity evaporation and paralysis of certain markets and, more generally, the increasing cost of refinancing. However, all these have negatively affected branches in Romania.

Yet, the Romanian banks remain solid and profitable. The main factors explaining this favorable situation are:

- the level of the Romanian banks' own funds remains high, at levels above the minimum required by the prudential regulations and European practice;
- the Romanian banking system continued to obtain good results in the last period, the rate of profitability calculated on the whole banking sector decreasing slightly, but remaining high compared with other countries;
- branches of foreign banks in Romania have major funding lines from the parent banks, a vital advantage when the attraction of deposits from the population and the ability to make capital increases through the issuance and placing of shares on market is small;
- Romanian banks do not have "toxic" assets;
- in time, the NBR adopted a series of prudential and administrative measures that required banks a prudent conduct.

In our view, these features of the Romanian banking system constitute a reliable source of confidence. Beyond the tensions and recent accuses to banks, the banking sector benefits from the reform to which it has been subjected in the recent years, which enables it to cope with the possible turmoil.

2. PUBLIC POLICIES DURING CRISES

An important finding regarding the current crisis is it produced changes in the conduct of public policies regarding financial institutions. Until the outbreak of the crisis, these policies have been geared exclusively toward providing liquidity, but

afterwards, public interventions have begun to target increasingly the financial sustainment and insurance of banks' own funds.

According to some authors, this change of orientation is a genuine theoretical and ideological revolution (Attali, 2008, p. 145 et seq.).

As to us, we find that only during a crisis, when the bank panic can trigger out of nothing, the problems of liquidity are crucial for financial institutions. The interbank markets have a natural capacity for self correction, which has already spontaneously stimulated an evolution towards a state of normality. However, it is clear that the market alone is not able to quickly rebalance itself. To facilitate this process, major central banks around the world took a series of exceptional measures, which in the not too distant past would have been considered true heresies: extending the maturity of refinancing facilities, expanding the range of eligible assets, as a counterparty in these transactions; multiplication of warranties admitted to the refinancing process, modification of procedures for the access to central bank liquidity in special conditions; enhancing international coordination, etc. Theoretically, these measures should crucially contribute to restore confidence and to the return to normal functioning of interbank markets.

There has also occurred massive support for solidity and solvency of banks. Without going into detail, we highlight the following three main forms of intervention in the economy of the great democratic states:

- 1) The refinancing of banks from public funds, so that they can, in turn, finance the economy;
- 2) Carrying out significant reforms of the accounting rules, the new rules oblige banks to transfer assets recorded in the past with the market value is no longer possible; also rules allow greater flexibility in calculating the "fair value " of assets that have no market;
- 3) Confirmation of support by the state of the banks' recapitalization.

In Romania, the authorities' response to the adverse effects of the crisis was different than in the U.S. or European countries. The explanation lies in the fact that the Romanian economy differs in many respects from Western economies, which makes it impossible to simply copy the measures taken in those countries. For the theme of this paper, the main distinction that matters is that the Romanian economy has a large current account deficit, which is especially dependent on external financing. As a result, the Romanian authorities were forced to choose between the orderly reduction of the deficit or its reduction by the market, which, in conditions of tension and mistrust, could have dramatic consequences on the exchange rate and economic growth.

Although the process of adjusting to a market economy cannot be planned with precision, it is clear, however, that the promotion of coherent and credible economic policies can avoid a disorderly adjustment (*hard landing*). Therefore, the

Romanian government attempts to avoid increasing wages and pensions, reducing taxes and contributions, etc. As a consequence, all this growth would stimulate domestic demand, which would reduce the current account deficit to a sustainable level. Conversely, the concentration of the mix of macroeconomic policies on the process of adjustment of external (current account deficit) and of the internal imbalances (budget deficit) is likely to lead to a "smooth landing" of the economy and improve foreign investor perceptions. Therefore, it is necessary to continue a significant strengthening of fiscal and wage policy (in the broad sense, including increases and awards with *cvasiwage* nature). The budget for 2009 is, indeed, an important step in this direction; it allocates an important volume of funds for high investments that are likely to exert certain *spillover effects* on other sectors of the economy.

Moreover, the government seeks to contribute to the improvement of foreign investors' perception, by improving the absorption of European funds, and how it replaced to a certain extent, external financing with a private public funding, in order to create new jobs in areas poorly capitalized (infrastructure, tourism, agriculture - food sector, etc.), meant to gradually take over the role of engine of economic growth, etc. Finally, the winding up of financing agreements with international organizations (International Monetary Fund, World Bank, European Commission, European Investment Bank etc.) is liable to compensate the reduction of sensitive inputs of private capital.

3. THE ROLE OF CENTRAL BANKS IN THE ASSURING AND MANAGEMENT OF LIQUIDITY

In general, central banks' response to the crisis was triggered very quickly. Since August 2007, tensions observed in the interbank markets have led the Eurosystem to provide several days in a row unlimited amounts of cash through so-called "marginal lending facility"⁶. In turn, the Fed extended the maturity of its permanent credit facility from 1 day to 30 days, thus allowing banks to provide guarantees to reach the primary currency in terms of an increasing lack of trust between interbank market participants. Also, because reducing the maturity of interbank placements (in periods of uncertainty, banks continue to grant loans to other banks tend to reduce maturities), the Eurosystem started to carry out additional operations of medium-term refinancing.

At the end of 2007, major central banks around the world began to work intensively to deal with crisis and with the difficulties faced by banks trying to refinance in U.S. dollars. Thus, on 12 December 2007, the Fed, the ECB and the

⁶ - The marginal lending facility is a permanent feature, which allows banks to obtain overnight loans from the central bank, at a preset rate, collateralized by eligible assets.

Swiss National Bank have created a feature meant to allow medium-term refinancing (1 month) in U.S. dollars⁷. These measures are in force today.

Since the European central banks do not necessarily have the resources that they need in foreign currency, in order to meet requests for refinancing of European commercial banks, there were carried out a number of special arrangements (*swap*) with the Fed. Among the central banks that have benefited from the *swap* lines in U.S. dollars from the Fed, we mention: ECB, Bank of England, Swiss National Bank, Bank of Japan, etc. Subsequently, such agreements have been concluded in order to allow the ECB to provision euro (with the National Bank of Hungary, National Bank of Poland, National Bank of Switzerland, etc.), as well as to allow the Swiss National Bank to supply Swiss francs.

Similar measures have been taken by other central banks, while others have applied absolutely unconventional measures. Of the latter category, an interesting case is the Fed, which is the reference model for many central banks around the world. In crisis conditions, the Fed proved extremely innovative in the design of facilities meant to allow various financial intermediaries to obtain the primary currency, to convert illiquid securities in government bonds, or even to sell directly to the central bank securities for which there are no market buyers. Thus, since October 2008, the Fed buys, directly from the financial market, short term or long term securities issued by enterprises or ones that materialize loans to population, in order to facilitate financing of the economy and reduce the cost of this funding.

The conclusion that detaches from the facts shown is that, at first, liquidity injections were all intended to the money market, in order to enable it to function properly and to ensure a proper allocation of resources for financing during the crisis. Subsequently, these measures have increasingly pursued saving certain financial institutions. It is therefore, about a conduct unprecedented in history, and this, both in terms of duration and amounts of liquidity injected.

4. THE NBR ACTION

The NBR continued to implement the strategy of monetary policy called "inflation targeting" (inflation targeting). This strategy was adopted in 2005 as a result of the necessity of achieving a sustainable disinflation. Its implementation was not easy even before the crisis, because of unfavorable characteristics of the Romanian economy: fiscal dominance; massive inputs of capital, net debtor position of the NBR to the banking system, inefficient transmission mechanism of monetary policy, etc. During 2005-2007, all these features were combined, and therefore there were situations where the excessive appreciation rate of the leu and inflationary expectations have coexisted. This phenomenon has created a serious dilemma for the

⁷ - Similar assemblings were applied for several days in September 2001.

central bank, because the interest rate increase, although necessary to reduce inflationary expectations, attracted more foreign capital, thus appreciating the leu in an unsustainable manner (Cerna et. al., 2009).

After the triggering of the crisis, some of these circumstances have disappeared. Currently, the trend shows the NBR's net creditor position to the banking system, while foreign capital entries have attenuated significantly. This situation does not ease monetary policy implementation. Conversely, the financial crisis has increased money and foreign exchange market volatility, thus slowing down the economic activity. Furthermore, the current account deficit together with the large external financing reduction triggered the depreciation of the leu, a phenomenon that is fueling inflation and makes a high interest rate necessary. In addition, borrowers who have debts in euro and other foreign currencies, and therefore the financial system as a whole, are vulnerable to a significant depreciation of the leu. Finally, higher interest rates hamper economic growth and create additional costs for borrowers, risking destabilizing the financial sector.

In these circumstances, there appears the difficult problem of compromise between the two objectives of monetary policy: price stability and ensuring financial stability.

The principle which has recently triumphed in the economic theory and practice is that the long-term objective of monetary policy should be to achieve low inflation, as a low rate of inflation helps sustainable economic growth in the long term. Consequently, low inflation is an end in itself as well as a mean of achieving sustainable economic growth.

The effectiveness of monetary policy in achieving this objective is limited by financial instability.

The experience prior to the outbreak of the crisis seems to confirm the concept that inflation is the main source of financial instability. In the past, periods characterized by high inflation have also been marked by instability and severe financial crisis in the banking sector, or were followed by recession, due to the adoption of authorities of inadequate inflation mitigation measures. However, literature showed that a low inflation rate is not a sufficient condition for ensuring financial stability in the long term (Isarescu, 2009). The current crisis shows that the turmoil in financial markets significantly influences the business cycle. Therefore, major central banks around the world are trying to maintain financial stability and avoid economic recession and depression, providing the necessary liquidity and trying to improve the management of liquid resources.

In these circumstances, question of the extent to which the central bank really has the ability to concomitantly ensure price stability and financial stability, arises (Cerna et.al., 2008, p. 25-28).

Judging by the experience of Romania, financial stability is critical to price stability. It is true that, in Romania, the inflation rate is still high compared with other Central and Eastern European countries. However, if the NBR would have undertaken a more restrictive monetary policy, which would have involved very high interest rates, financial firms and households would have been damaged. This action would have deteriorated the financial situation of households, as well as the financial stability of the banking sector. After all, the very pace of disinflation would have probably been less than that achieved. The conclusion is that, in the long-term, the inability to maintain financial stability leads to a reappearance of inflation.

An advantage of the inflation targeting strategy is that it allows the formation of the exchange rate through market mechanisms. The Romanian economy is an open economy both commercially and financially, and therefore the evolution of the leu exchange rate depends not only on internal factors but also on the events in the world economy. Under these conditions, variations in exchange rate were often higher than those justified by "fundamentals". Thus, between 2004 and 2007, when there were massive capital entries, the leu was very much appreciated. The phenomenon has repeated in certain periods, even after the outbreak of the crisis, including in 2009. Therefore, the central bank opted for the exchange known as "managed floating", which allowed the use of the free market virtues, the avoidance of excessive assessments and the discouragement of speculative behavior.

Consistent implementation by the central bank of this strategy has required relatively large purchases of foreign currencies on the market during 2004 and August 2007. At the time, was criticized that it did not to let the leu to appreciate in accordance with the market situation. Looking back, it appears that this policy was appropriate. For the crisis has led to an abrupt reversal of the appreciation trend of the leu, with major episodes of volatility. Just as in the past entries of foreign currency resulted in the overappreciation of the leu rate, well above the appropriate level according to the basic configuration factors of the exchange rate today, while the uncertainty and the reduced external financing tend to cause undue depreciation of the leu's fundamental variables. The currency bought on the market in times of overrating now serves to finance interventions in order to mitigate the depreciation rate.

5. THE SUPERVISION OF FINANCIAL SYSTEMS

The crisis has highlighted the fundamental need of rethinking the ways of regulating financial systems. The most discussed aspect is the supervision, whose deficiencies are considered an important cause of the global financial crisis. In this context, some authors even talk about the need for a new Bretton Woods, i.e. a new international financial order (Boughton, 2009, p. 44-46).

In accordance with the previous analysis, it is clear that there is a need for better regulation in all areas of business, from the *rating* agencies' activity to the organization of the markets, risk management and remuneration of managers.

As to us, we refer to only two issues with this problem.

A first issue is that of the fluctuations of financial systems. By their nature, financial systems in a market economy are the subject to cyclical forces. Since the price of assets gives rise to gains or losses, the capital of financial institutions evolves in parallel with asset price movements. Therefore, the enforcement of a constant level of the rate "equity / total assets" (leverage effect) tends to increase this fact, sustaining the demand for assets in the event that their price increases - and vice versa. The problem for authorities is to establish whether and to what extent these rules intensify these dynamics. In other words, it is necessary to know if financial regulations designed from a microeconomic perspective affect the entire financial system.

These considerations mainly highlight the need to mainly improve the accounting and prudential rules. In general, one can say that it is necessary to design and implement accounting and prudential rules that are more suited to economic development; these rules must not be cyclical, but exhaustive in terms of incidence on the financial institutions both in impact and coherence.

The problem is, therefore, to develop and implement a macro prudential policy. Its general principle is easily understood: it is about to make it so that monitoring can limit the risks that threaten financial stability, as related to a specific institution and those related to the financial system as a whole. The practical application of such a policy is, however, more complex. While reform proposals abound, there are still different views on the number and magnitude of change required, to the division of tasks, methods of cooperation, etc..

The second issue is that of financial supervision, in particular banking supervision. Regarding the latter, the crisis has demonstrated the benefits of exercising it by the central bank or, anyway, by a body in which the central bank is strongly represented. This conclusion is endorsed today by all central banks, irrespective of the regulatory framework in which they operate. The argument is that the central bank's good knowledge of banking and other financial institutions, therefore being able to act quickly in periods of turbulence both on the money and credit market. And, indeed, central banks began almost immediately after the outbreak of the crisis to inject liquidity in various forms and with various maturities. This is because central banks have been able to assess the quality of market participants and the reality of their needs, and therefore were able to distinguish between problems of liquidity and solvency and react accordingly.

In this framework, the way in which the NBR responded to mitigate the consequences of the crisis on the Romanian economy emphasize the need to

increase its powers in order to deal with a destabilization of the Romanian banking system. Thus, although the Romanian banking system is solid, the recent agreement of the Romanian government with the IMF requires changes in banking legislation in order to strengthen the power of the NBR to require shareholders the conduct of capital increases and the limitation of the distribution of profits. It also provides changing laws governing the organization and functioning of the other supervisory authorities (the National Securities Commission Insurance Supervisory Commission of Supervision of Private Pension System), for the purposes of strengthening their independence.

The revise of regulations, in order to avoid a new crisis is currently the subject of numerous debates in international courts and in academic circles. Equally important is the willingness and capacity of supervisory authorities to enforce regulations on a regular and credible manner. For, however important it is, this review may not be effective unless it is reinforced by the implementation of regulations, which require the autonomy of the supervisory bodies as well as the allocation of sufficient resources.

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EMERGING ECONOMIES FACED WITH THE DOWNSIDE OF FINANCIAL GLOBALIZATION: HEDGES AND WAY OUTS

Sorin BURNETE*

***Abstract:** The underlining assumption of this paper is that developing countries are in a fragile state nowadays. Economically, they have been seriously harmed by the 2008 crisis¹ but this is not the end of the story: the future still has pitfalls in which these economies might get trapped, due to their enhanced vulnerability to exogenous shocks generated by financial globalization. Ideologically, the recent events have triggered a serious backlash against capitalism, particularly the Anglo-Saxon template. Getting an insight into the causes and implications of global economic crises is therefore critical for policy-makers in emerging economies. History might be a good adviser in this respect. Lessons from the past are even more important for ex-communist nations, whose confidence in capitalism's potential is still shaky. Some of the possible hedges against and/or way outs from such scourging events are discussed in the paper.*

***Keywords:** financial globalization, money mercantilism, currency crises, international reserves, speculative attacks, capital controls, regulation*

***JEL classification:** F41*

1. GLOBAL FINANCIAL INTEGRATION: A MIXED BLESSING

1.1 The impact upon economic development is not clear-cut

International finance is the economic sector where global capitalism has been most dynamic but also most controversial from the standpoint of its effects upon emerging economies. On the one hand, the surge in capital flows to developing countries during the last twenty years has most certainly fostered their economic growth. According to Mishkin (2007), „the evidence that financial development and economic growth are linked is quite strong”. Ever greater amounts of incoming FDI have enabled developing countries to benefit by higher capital accumulation, acquire expertise in dealing with financial issues, upgrade their financial services sector etc.

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On the other hand, capital mobility across national boundaries means higher risk for host-economies: beside potential speculative attacks on their currencies, economies with large amounts of short-term capital inflows are continuously menaced by macroeconomic destabilization due to portfolio investors' unexpected behavior: when the "hot money" flows in, effects are positive: the cost of capital for local companies will edge down while wages will be driven up; when the "hot money" flees the country, "it will leave a currency crash in its wake, throwing the economy into a sharp recession". (Frankel, 2005)

Obviously, the above depiction of financial globalization impact is quite vague before being incomplete. As concerns western investors, the amounts of capital they venture overseas are expected to yield higher rates of return than they would if were invested at home; besides, emerging markets allow them to diversify their portfolios internationally. On the opposite side, benefits are less clear-cut: firstly, it is hard to ascertain accurately to what extent foreign short-term capital helps to improve host-countries' macroeconomic condition (lower inflation, lower external deficits etc.) Bosworth et al. (1999) contend that at least in part, "positive effects are cancelled out by other perverse ones such as increased consumption and capital outflows". Secondly, according to Rodrik (2001), for developing countries global financial integration seems to be politically disruptive as well, by prompting governments "to divert human resources and administrative capabilities away from more urgent development priorities such as education, public health, industrial capacity etc."

The difficulty in ascertaining the impact of financial globalization upon developing countries' economic growth should not be surprising. The more general relationship between finance and growth is not easy to grapple with either. On a broader plan, the contribution of finance to economic performance is a function with three variables: long-term economic growth, poverty reduction, economic activity and incomes stabilization (World Bank, 2001), the first one being perhaps the most significant.

In principle, it may seem obvious that full-fledged financial systems support faster economic growth; yet it is not easy to demonstrate. King and Levine (1993) found that many financial development indicators (e.g. the size of the formal financial intermediary sector relative to GDP, the importance of banks relative to the central bank, the ratio of credit issued to private firms to GDP and others) are strongly and robustly correlated with growth. Levine and Zervos (1998) further tried to prove that stock market liquidity and banking development were both positively and tightly correlated with present and future rates of economic growth, capital accumulation, and productivity growth.

1.2 Trade in money exceeds trade in merchandise

Financial globalization has ushered in a new type of gap: the international division of money. If the division of labor has increasingly got a core-periphery configuration, in which rich countries belong to the core, while poorer ones are relegated to the periphery of the world economic system, so does the global flow of money: financial markets integration has put high pressure upon emerging, soft-currency economies, most of which are dollarized. Dollarization is a two-way road: when the hard currency flows in, it is an anchor, supporting economic development; when it flows out (for whatever cause), wealth will be transferred from the periphery to the core. The process, coined “money mercantilism” (Allen, 2000) has become prevalent relative to trade mercantilism and no less effective than the latter.² It is typically carried by financial intermediaries and tends to make the core wealthier and the periphery poorer.

Money mercantilism has many a facet, none of them working in the benefit of emerging economies. The latest innovations in the field of arbitrage such as carry trade are not of great help either. These types of business, mostly undertaken by hedge-funds on Euromarkets are highly destabilizing before being inherently risky. Schemes may be technically new but they are embodying an “old type of thinking” (Tilman, 2009): one takes out a loan on a certain market, in a certain currency, at a lower rate, and then one lends the money on a different market, in a different currency, at a higher rate: alternatively, the funds may be invested in higher-yielding securities for a profit. Such “games” enhance volatility and distort the price signals on emerging financial markets.

Briefly, the impact of financial globalization upon emerging economies is hard to gauge because long-term positive effects are sometimes offset by short-term negative ones, chiefly resulting from financial liberalization and extensive money mercantilism. Ultimately, the net effect depends on the soundness of the financial sector. Loayza and Rancière (2006) contend that development is subject to the degree of financial depth but also to the degree of financial fragility: the former supports growth while the latter is a prerequisite for financial crises.

1.3 The anatomy of a currency crises

Financial globalization is thus a hazardous blessing: fostering economic development on the one hand; paving the way for financial crises, on the other hand. To understand how this happens, let's making use of a simple monetarist model. The diagram in figure 1 illustrates the effects of an exogenous factor (an increase in world prices) upon a small open economy that is heavily dependent on imports, i.e. the price-elasticity of the domestic demand for imported goods and services is low. If the money supply is given, the balance of payments (BP) is a function of the domestic money demand (M_d), which depends on the domestic price-level (P),

measured on the horizontal axis; as prices increase, people will adjust their actual money holdings to their desired money holdings through hoarding cash (i.e. savings exceed investments). If the purchasing-power parity (PPP) condition holds, domestic prices depend only on the foreign price-level and the exchange rate (e), which is, for the moment, presumed fixed. According to Dornbusch (1973), the balance of payments can then be expressed through the hoarding function, as follows:

$$BP = H = \beta (M^d - M) = \beta (KPY - M) = \beta KPY - \beta M \quad (1)$$

where, β = the speed of adjustment from actual to desired money balances;
 K = the desired ratio of money to income;
 M^d = the nominal money demand;
 P , Y and M = domestic price-level, national income and nominal money supply respectively.

From (1), one can infer that the BP is an increasing function of the price-level, with the slope equal to βKY . If the exchange-rate is pegged, the money supply is an endogenous variable, consisting of two components: domestic credit and international reserves. (Whitman et al., 1975) Under globalization, national economies are generally subjected to at least three kinds of pressures: (i) world prices fluctuations; (ii) FDI inflows and outflows; (iii) speculative attacks on the domestic currency. The first two are exogenous factors with a direct impact on the domestic demand for money and implicitly on the country's balance of payments, while the third will exert pressure upon the exchange-rate.

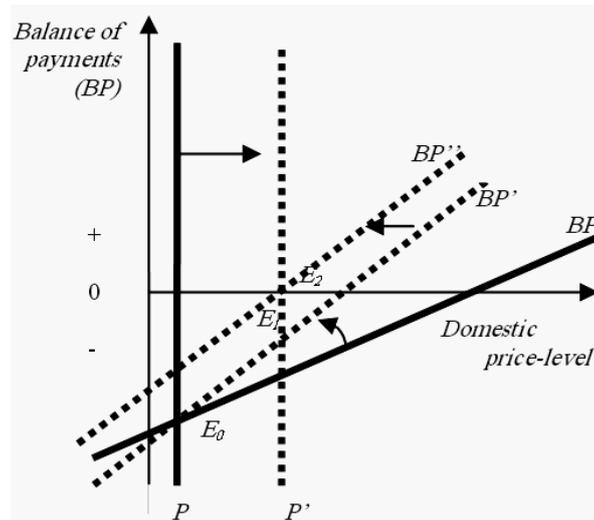


Figure 1 Effects of foreign prices increase and monetary expansion on the balance of payments in a simple monetarist model

If the price-elasticity of the foreign demand for the country's exports is also low (meaning that the Marshall-Lerner condition does not hold), an increase in the world prices will lead, with great likelihood, to a terms of trade deterioration and a deficit in a balance of payments for the economy under consideration (in figure 1,

the initial equilibrium is located in point E0). The increase in world prices (no matter the cause) will, due to the PPP condition and exchange-rate fixity, trigger an increase in the domestic price-level in the same proportion (the P line will shift rightward, to P'), causing a rise in the domestic money demand and a reduction of the balance of payments deficit.³ Now let's suppose that, at the same time, the amount of foreign capital flowing into the country is also growing, stimulating domestic output growth. The rise in Y further enhances the domestic money demand; yet the BP curve will not shift rightwards; it will simply rotate in the counterclockwise sense (around point E0), so it becomes steeper. (Caves, Frankel, Jones, 1993) The economy moves toward a new equilibrium in E1, where the BP deficit is lower than before but the domestic price-level has risen. ⁴

The problem with the above scenario is that it only catches the economy's adjustments in the short-run; yet for a longer time-horizon it is far too optimistic. Actually, the monetary approach seeks to combine long-run behavior with short-run adjustments. (Mussa, 1974) To resume the above analysis, in the new equilibrium state (marked by point E1), the authorities have two alternatives in order to diminish or do away with the BP deficit: a) to expand the monetary policy; b) to devalue the currency. Regarding devaluation, in the real world, developing countries' governments are often either reluctant – they may fear a possible loss of credibility (Sarno/Taylor, 2001) – or unable to devalue their currency (the economy may be tied up in a currency-board or other kinds of pegging arrangements). Monetary expansion is therefore more likely to be preferred to devaluation.

The increase in the money supply caused by an expansionary monetary policy will make the BP curve shift leftward until it crosses the P' line in E2. The BP is again in equilibrium, the exchange-rate is unchanged but the cost is a higher price-level and an increased money supply. The problem with the new equilibrium is that it is fragile (let alone the fact that the prospects of rising inflation are now daunting); it cannot be maintained unless the authorities are able to sustain the value of the currency. Keeping the exchange-rate at a fixed level may nevertheless be a difficult task to fulfill, especially when governments must run high budget-deficits.⁵ In this case, combined operations of monetary, fiscal, and exchange policies are required: the central bank must finance the budget deficit through open-market interventions. (Mundell, 1963)

The economy is thus facing a trade-off: should the authorities – facing the menace of rising inflation – manifest strict determination in keeping the exchange-rate fixed, their obstinacy might nevertheless put the macro-equilibrium in jeopardy: the pegging effort will at some point collapse in a sudden balance of payments crisis (Krugman, 1979), causing depletion of international reserves. The central bank must buy high amounts of government debt-securities on the domestic market, on the one hand, and sterilize their purchase by a sell of foreign reserves (against domestic

currency), in the same amount, on the other hand. In this process, the central bank may run out of international reserves (the loss depends on the size of the deficit) and at a certain moment, it may become unable to further support the exchange-rate⁶. The currency crisis is looming.

Should foreign investors expect the domestic currency to be devalued in the near future, they will claim higher interest rates, to compensate for a prospective loss. Unless speculators get this compensation, assuming perfect assets substitutability, there will be a private capital flight from domestic toward foreign assets. It follows that central bank's sterilization of the money supply (referred to above) has no effect under a fixed exchange-rate regime: due to speculative attacks, the central bank must keep on selling foreign reserves until the equilibrium is restored in the money market at a higher interest rate. Ultimately, the central bank may run out of foreign exchange reserves. When this happens, the currency will be allowed to float; the switch to a floating exchange-rate regime, compounded by a rise in the domestic price-level will generate further capital losses.

2. HEDGES AGAINST AND WAY OUTS FROM FINANCIAL STORMS

2.1 Wise skippers at the helm

Scores of developing countries are scrambling to entice foreign investors but few of them are duly equipped to manage the incoming foreign capital in such a way so as to extract maximum of benefit thereof. Unfortunately, not infrequently, policy makers in developing countries lack "the degree of sophistication needed to interpret research results, which might enable them to make up and apply the most effective economic policies". (Krueger, 1997) In the case of the new EU member states in Central and Eastern Europe for example, recent studies (Kittelmann et al., 2006) have shown that the majority of crises that had occurred in those countries in the last ten years were due to "inconsistencies in the domestic policy mix, which contributed to the deterioration of their macroeconomic condition".

Macroeconomic mismanagement has (with few exceptions) become apparent in the context of global banking expansion. The fact that the massive penetration of foreign banks into emerging economies was driven by western bankers' wish to make quick profits cannot be denied; but it is no less true that this penetration was eased a great deal by the crisis local banking systems were mired in. Commercial banks, mostly state-owned were burden with bad loans, requiring recapitalization and reformation (World Bank, 2008). On the other hand, host economies proved institutionally, ill-prepared to receive great amounts of foreign banking capital because they lacked the necessary prudential regulatory and supervisory structures. (Mishkin, 2007) From the market perspective, this tendency has created enhanced dependence on foreign banks financing, entailing extra risks. The larger the share of

the domestic credit market seized by overseas banks, the higher the risk for local banks to run out of liquidity should the former impose restrictions on lending. In the expansion phase, these things were nevertheless less apparent. In fact, foreign banks pumped high amounts of liquidity into their subsidiaries located in emerging economies. The resulting expansion of local credit markets was accompanied by an increase in the prices for assets such as real estate and stocks. Conditions for the formation of asset price bubbles were thus ripe. The burst of the bubble pushes the economy into a liquidity spiral: funds dry up, banks are no longer able to roll over their short-term debts, markets shrink.

However, governments of emerging economies do have a few possibilities at hand in order to prevent financial crises. Firstly, more attention must be devoted to early warning signals. The deterioration of macroeconomic fundamentals (GDP growth, external balance, interest rates and inflation levels etc.) is such a signal. Reality has shown that if the worsening of fundamentals (especially the rise in the current account deficit) goes hand-in-hand with a real appreciation of the domestic currency, this is a sign that future attacks on the currency will ensue. Should problems within the banking sector arise, this will be another signal. Secondly, one must be aware that banking and currency crises are closely entwined so that scholars now speak about the “twin crises” phenomenon. (Kaminsky/Reinhart,1999) The banking and currency crisis literature finds that monetary aggregates, such as domestic credit, are among the best predictors of crises and their related economic downturns. At any event, one must pay attention to early warning signals and react accordingly.

2.2 International reserves aren't always a safety cushion

One important issue that is hotly debated nowadays is related to central banks' interventions in the foreign exchange market, aimed to forestall an impending depreciation of the home currency that might push the economy into a full-blown crisis. Such interventions obviously require substantial holdings of international reserves by the central bank. However, to what extent are these holdings a safety cushion against currency crises is far from clear. Asian countries are clearly behind the idea that amassing high amounts of foreign exchange is an insurance policy for times when the economy is in dire straights.⁷ This is most certainly due to the painful experience of the 1997 crisis, when the IMF stepped in to bail out these economies. The conditionality attached to IMF's loans provoked strong political opposition and even a backlash against the Fund's policies.

However, reality has shown that hoarding foreign exchange reserves might turn out to be a risky undertaking. In case of a major downturn, not only may the goal of keeping the foreign exchange rate from falling not be attained but the central bank can wind up in a depletion of reserves and eventually, have no alternative but

let the currency float freely. The problem is thornier than it seems because it is not solely a question of cost; it is, above all, a question of opportunity in the sense that the intervention must be subject to the nature of the factors that had sparked off the exchange-rate change. If this was due to a change in real factors such as a decline in the terms of trade or a deviation from the purchasing power parity, the problem will not be solved through government foreign exchange market transactions. (Stockman, 1980) Besides, there always exists an alternative, involving a trade-off between the net benefits from changing the exchange rate versus defending it. (Obstfeld, 1995) By using the simplest of Brainard's models (1967), with one target and one instrument, the optimal policy under uncertainty conditions can be derived from the linear relationship between policy targets and policy instruments. This can take the following form:

$$m = f(H) + \varepsilon \quad (2)$$

where, m is the vector of central bank objectives (here, of size one⁸),
 H is the vector of policy instruments (here, of size one too⁹) and ε is
the vector of exogenous variables.

The linear equation can be written as follows:

$$m = \alpha H + \varepsilon \quad (3)$$

where α denotes the economy's response to the policy action, which is, in
itself, a major uncertainty.

A second uncertainty is related to the impact of the exogenous variables (ε) upon the target variable (m). Clearly, these two types of uncertainties have different relevance: while the latter does not bear upon policy decisions, the former has important implications thereupon. Now let's suppose the desired value for m is m^* . Because of the mentioned uncertainties, the attainment of the m^* target is also uncertain. Under these circumstances, the policy actions are aimed at maximizing the expected value of the utility function, which takes the following quadratic form¹⁰:

$$U = - (m - m^*)^2 \quad (4)$$

Considering the most general scenario (α is a random variable, correlated with ε), the variance of m is given by:

$$\sigma_m^2 = \sigma_\alpha^2 H^2 + \sigma_\varepsilon^2 + 2\rho\sigma_\alpha\sigma_\varepsilon H \quad (5)$$

where σ_α^2 , σ_ε^2 are the variances of α and ε respectively, and ρ is the
correlation coefficient between α and ε .

One can determine the expected utility from a given policy action by introducing the mean and variance of m into the utility function, as follows:

$$E(U) = - [(\bar{m} - m^*)^2 + \sigma_m^2] = - [(\bar{\alpha}H + \bar{\varepsilon} - m^*)^2 + \sigma_\alpha^2 H^2 + \sigma_\varepsilon^2 + 2\rho\sigma_\alpha\sigma_\varepsilon H] \quad (6)$$

where, $E(U)$ is an expected value operator.

\bar{m} and $\bar{\varepsilon}$ are the expected values of m and ε , respectively. Since equation (6) is quadratic with negative coefficient, it will admit a maximum, which can be determined by differentiating with respect to H and setting the derivative equal to zero. The optimal value of H is:

$$H^* = \frac{\bar{\alpha}(m^* - \bar{\varepsilon}) - \rho\sigma_\alpha\sigma_\varepsilon}{\bar{\alpha}^2 + \sigma_\alpha^2} \quad (7)$$

The model may be further developed by introducing an additional independent random variable, say, a vector of non-policy exogenous variables (L^{11}) and a restrictive condition. Equations (2) and (3) then become:

$$m(H,L) = \alpha H + \beta L + \varepsilon \quad (8)$$

subject to

$$g(H,L) = t \quad (9)$$

Variables α , β are random, ε is a vector of stochastic disturbances¹², and t is a constraint¹³. Optimization then implies maximizing (8), subject to the constraint (9). Although, according to Blinder (1998), this implies no less uncertainty, the problem can be solved by using the Lagrange multiplier. The contour lines of m and g touch when their tangent vectors are parallel. At inflexion points, gradient vectors are also parallel. It follows that the sought points must satisfy concomitantly equation (9) and the following:

$$\nabla_{H,L} m = -\lambda \nabla_{H,L} g \quad (10)$$

where, $\nabla_{H,L} m$ and $\nabla_{H,L} g$ are respective gradients i.e. vectors of partial derivatives with respect to H and L , of functions m and g respectively, and

λ is a constant that measures the difference in magnitude between the two pairs of vectors.

Optimization can then be reached by building a more complex function with 3 variables, as follows:

$$A(H, L, \lambda) = m(H, L) + \lambda[g(H, L) - t] \quad (11)$$

and making all 3 partial derivatives $\nabla_{H,L,\lambda} A(H, L, \lambda)$ equal to zero.

2.3 Currency boards: effective but risky

Few would deny that financial storms are often caused and even fuelled by exchange rates volatility. Many governments in developing countries will therefore opt for fixed exchange rate regimes as bulwarks against financial turmoil. However, pegging the currency may be twice risky: firstly, reality has shown that fixed exchange rate regimes would be most exposed to speculative attacks; secondly, as previously shown, when financial storms break out, keeping the domestic currency from falling can be a very difficult task.

When difficulties become overwhelming, governments are tempted to adopt currency boards, which are an extreme form of pegging. Only, one must take account of the fact that this arrangement is a mixed blessing: the good part is that they are efficient means of building or restoring confidence in the domestic currency; the bad part is that central banks' monetary policy is practically frozen, which means that exogenous shocks cannot be easily absorbed. This thesis has been confirmed recently: various economies in Eastern Europe responded differently to exogenous shocks (such as the appreciation of the euro or the farming and energy prices hike), function of the type of currency arrangement in force. Countries with currency boards (e.g. the Baltics) were most severely hit: their exports' competitiveness declined while inflation rose to two digits. Countries non-engaged in currency pegs (e.g. Romania) managed to escape a hard landing.¹⁴ Currency boards are thus more effective as way outs from financial storms (as was the case of Bulgaria in 1997) rather than hedges against them.

2.4 IMF's bail out schemes under fierce criticism

The possibility that the IMF should step in and bail out crisis-stricken economies is a source of much controversy nowadays. Although the mere possibility of IMF to intervene is reassuring, the way in which the Fund is fulfilling its commitments remains one of the hottest issues. The Asian crisis is a landmark in this respect: not only the assistance provided to countries hit by the crisis was lavish but the Fund got more deeply entangled in their internal affairs than it had ever done before (Eichengreen, 1999), demanding excessive restrictions of monetary and fiscal policies. The results were considered disastrous by Stiglitz (2001): "the money went not to finance more expansionary fiscal policies but, instead, to bail out creditors from the more industrialized countries."

Studies so far have shown that today's crises tend to be more severe than the ones that occurred in the past and the discrepancy is most likely due to the availability of rescue packages from the IMF (DeLong et al., 1999). Such packages are by no means the cause of crises but, by making investors and banks more willing to take on more risks, they make global capitalism more prone to crises.

2.5 Can governments save the day?

During hard times, people will expect a great deal from political leaders. Governments are supposed not only to alleviate the pain but to find means to avert future crises. In brief, they must solve and regulate, in this order.

Regarding the solving issue, the question is: how can governments fulfill this task? What should they start with? Obviously, if one takes account of the lessons from the past, banks must be on the top of the rescuing list. Prompt authorities' intervention by pumping liquidity into the system won't solve the problem but it might contain the losses. As Milton Friedman pointed out, the chain of bankruptcies that struck the US banking system in the early 1930s could have been contained had the newly-created Federal System decided to buy large amounts of government bonds... "Unfortunately, the Fed's actions were hesitant and small. In the main, it stood idly by and let the crisis take its course – a pattern of behavior that was to be repeated again and again during the next two years." (Friedman/Friedman, 1990)

A second question is: are governments supposed to save the banking system only? Aren't there other sectors that deserve as much to be rescued? After all, why not buy out entire industries thereby containing unemployment? Unfortunately, there are no straight answers to the above questions. All we know up to now – i.e. one thing on which most economists and politicians seem to agree – is that inaction from the part of the government can be deadly. (Hausken/Plümper, 2002) The failure by the Fed to save the legions of ailing American banks doomed to bankruptcy during the Great Depression stands as proof. As Joseph Stiglitz recently remarked, "banks have shown that they can't manage their own risk, and the consequences for others have been disastrous." (Stiglitz, 2009) That's true, but they must be kept from crumbling.

2.6 An old buzzword: regulation

Whenever the economy is faced with a downturn, an old buzzword, regulation begins to race up political agendas. But regulating the financial system can be as thorny an issue as solving crises. On the other hand, according to Stigler (1971), the existence of a problem is a necessary but not sufficient condition for regulation.

The task of regulating is hazardous the more so as it is difficult to establish precisely what the real causes of crises are. Is the central bankers' handling of the fiat money to blame? Or, are crises due to mistaken decisions made by reckless

politicians or greedy bankers? Government bureaucracies sometimes deliberately create problems or waste resources because they are constrained by the political process to pursue goals that have nothing to do with economic efficiency. This aspect undoubtedly lies at the core of the famous “sub-prime mortgages” story, which sparked the recent crisis.

But even admitting that financial system could be duly reformed at the national level, how to regulate the global financial system? According to empirical evidence, economic crises would hit countries where neither macroeconomic policy had been weak nor the economy had been overheating. (World Bank, 2001) The 1997 South-East Asian crisis for example, did not match usual macroeconomic instability standards. The crisis was sparked by a massive capital flight following the collapse of domestic asset market bubbles; it struck with extreme violence, provoking the collapse of the currencies in the region and making governments’ intervention futile.

Does it follow that capital controls might be a solution? Or perhaps, would other related measures such as the Tobin tax on financial transactions do? Probably yes but there is hardly a consensus on this matter. Depending on the circumstances, capital controls can be viewed as hedges or way outs. Bhagwati (2005) for example, contends that capital controls had acted as a hedge for China and India, protecting them from the bad effects of the 1997 crisis. Kaplan and Rodrik (2001) emphasize the way Malaysia used capital controls as a means to yield a fast recovery from the same crisis.

In the long run, such steps would most likely hurt firms in emerging economies by impeding their access to cheap sources of capital on a global scale. Actually, emerging economies are suffering from their financial markets being too segmented, meaning that for firms in these countries, possibilities of sourcing capital globally are scarce and consequently, the weighted average cost of capital is relatively high.

Actually, the Asian crisis highlighted three major drawbacks of the contemporary global system: a) the world economic equilibrium seems to be more fragile than it was before globalization took prominence; b) the global financial system is improperly structured and managed. (Delong/Cooper/Friedman, 1999) As previously emphasized, fragility derives from the lack of bank and financial regulation, as well as well-established supervisory control institutions in many developing countries that wish to open up their economies to global competition. As regards the management of the system, some believe reforming the IMF i.e. offering developing countries more clout would solve the problem. I think this is mere wishful thinking. Even if the Fund is reformed, meaning that developing countries are allotted bigger quotas (and implicitly more votes) and even the Fund’s liquidity is enhanced by lavish contributions from China and others, the moral hazard

problem remains. As *The Economist* has put it recently, “the main reason to reform the fund is the hope that countries will be more likely to heed the IMF’s advice if it is more representative.”¹⁵

And a last question: how effective is regulation? As Black et al. show, “even when regulation is designed and intended to operate as a surrogate of the free market one cannot be confident that the consequences of regulation will be similar to what the free market would produce.” (Black/Miller/Posner, 1978) This is nevertheless not to say that rules aren’t necessary. They most certainly are, for the simple reason, brightly intuited by Mancur Olson, that “as bad as governments may be, it is a historical fact that people generally flee an area of anarchy to settle in areas with governments” (Olson, 1986).

3. CONCLUSIONS

This paper is anchored in the “depression economics” framework¹⁶, with the focus on emerging economies’ specific issues. The author claims neither infallibility nor full comprehensiveness but simply wishes to draw the attention on certain weaknesses of the contemporary global financial system that might jeopardize emerging economies.

The recent crisis has revealed two clashing realities of today’s world: on the one hand, many emerging economies are still financially fragile and hardly prepared to face global downturns; on the other hand, the financial globalization process is beneficial but hard to harness. Emerging economies must find means to capitalize on it.

The main idea the author wishes to transmit is the following: the effects of the recent crisis have been painful indeed for developed and developing countries alike. Globalization may be the culprit for the mess, but stopping globalization is definitely not the way. Good management and well-inspired economic policies may be a much better solution.

NOTES

1. Western companies have curtailed investment in developing countries due to a drop in confidence: if in 2007, the amount of cross-border capital flows into emerging economies accounted for 5% of their GDP, now it is much less. According to the IMF, banks, firms and governments in the emerging world have some \$1.8 trillion-worth of borrowing to roll over this year, much of that in central and Eastern Europe. (*The Economist*, May 25th, 2009)
2. In the last decades, trade mercantilism shifted from western to newly industrialized economies from South-East Asia, primarily China. Yet in spite of their rapid economic growth, these economies became excessively dependent on exports. The recent plunge in exports, triggered by the global credit crunch has thrown them into deep economic trouble. (*The Economist*, Jan 31st, 2009, pp.62-63)
3. One must notice that, although the exogenous factor is a change in foreign prices of goods and services, it is not relative prices changes that concern us but the change in the overall price-level.

4. The BP deficit will be completely absorbed only in the event that the rise in income (following an increased capital inflow) is high enough to determine a more complete rotation of the BP curve until it crosses the P line on the horizontal axis. Such an outcome, though possible for certain sounder economies, will be, for most of the small countries, rather unlikely.
5. Reality has offered quite illustrative examples. Argentina for instance, in the late 1980s, ran huge public deficits, which the government tried to finance by printing money. "In 1989, Argentina's national mint churned out pesos at such a rate its printing presses broke down." (*Economics, Making Sense of the Modern Economy*, 6th ed. By The Economist, Profile Books 2006, p.173)
6. A situation of this type recently took place in Latvia, whose central bank "has burned through €1 billion (\$1.4 billion), around a fifth of its reserves, since mid-October to defend the national currency, the lat." (*The Economist*, December 20th, 2008, p.44)
7. The Asian countries' holdings of international reserves are fabulous: China and Hong Kong together are holding about \$2.3 trillion in reserves, while Japan's holdings amount to almost \$1 trillion. Taiwan and Korea are holding about \$300 billion each, Singapore about \$200 billion, Thailand and Malaysia about \$100 billion each. By comparison, the United States, Germany, France and the UK are holding together less than \$200 billion in international reserves. (IMF – *International Financial Statistics; Financial Statistics of the Central Bank of China, Republic of China*; http://investintaiwan.nat.gov.tw/en/env/stats/foreign_exchange.html)
8. The sole objective is terms of trade improvement.
9. The sole instrument is the foreign exchange market intervention.
10. According to Brainard, the assumption that equation (10) is quadratic is not one of trivial significance; it means that positive and negative deviations from target are equally important.
11. L may signify, say, the tightening (loosening) of external financing conditions.
12. The relevance of this term depends on the circumstances; under a financial crisis for example, it might be much higher than usual.
13. The constraint might be the amount of international reserves available for intervention.
14. Central banks in these countries were unable to use either interest rates or exchange rates in order to diminish such effects. Because nominal interest rates were fixed (indexed at the euro zone level), real interest rates became negative, while monetary policy became pro-cyclical, encouraging consumption. By comparison, countries non-engaged in currency boards (e.g. Romania) did much better: the free float regime allowed disruptions to be, at least in part, adjusted by market mechanisms, while the central bank could wield interest rates to calm inflation. ("Romania will escape a hard landing of economic growth", interview with the Governor of Romania's National Bank, *Gandul* daily, 9 Sept., 2008, p.7)
15. *The Economist*, October 3rd, 2009, p.85
16. As 2008 Nobel laureate Paul Krugman recently noted, "while depression itself has not returned, depression economics – the kinds of problems that characterized much of the world economy in the 1930s but have not been seen since – has staged a stunning comeback". (P. Krugman – *The Return of Depression on Economics and the Crisis of 2008*, W.W. Norton & Co. Inc., 2009, pp.181-191)

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ON THE EXCHANGE RATE RISK CONTRIBUTION TO THE PERFORMANCE OF INTERNATIONAL INVESTMENTS: THE CASE OF ROMANIA

Alexandra HOROBET*, Livia ILIE**

***Abstract:** The paper examines the impact of changes in the Romanian currency exchange rates against the US dollar and the euro on an investment in the Romanian stock market from the perspective of a US dollar and euro based investor. Our analysis is directed towards identifying the significance of exchange rate volatility for the total risk of a Romanian investment from the perspective of investors with the US dollar and euro as reference currencies. Our results indicate that during more turbulent times investors were better off if invested in their home markets. We also find that the exchange rate risk decreased the risk that a US dollar or a euro-based investor was exposed to in Romania. The contribution of exchange rate risk to the risk of an international investor diversified in his home market and the Romanian market is small, even negative, with no significant differences turbulent versus normal times.*

***Keywords:** Exchange rate, Romania, international investments, volatility*

***JEL classification:** F21, F31*

1. INTRODUCTION⁸

International investments are equivalent to investing in two different assets: the first one is the foreign stock or portfolio and the second one is represented by the foreign currency. Therefore, the actual risk and returns obtained from investing abroad are linked not only to the risk and return of the foreign asset or portfolio, but also to the changes in the exchange rate between the foreign currency and the home or reference currency of the investor. As changes in the foreign asset prices impact the risk-return profile of the international investor, so is the case with changes in exchange rates. In a world dominated by floating exchange rates, the currency

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volatility impact on international investments outcome is by no means a minor issue. But evaluating this impact is not a simple exercise, as currency movements influence the volatility of an international investment not only directly, through their own volatility, but also through the link between foreign returns and exchange rate changes. The good news is that, sometimes, this link can actually decrease the total volatility of an investment made abroad, instead of magnifying it, as one may think at first sight.

In a framework of increasing international portfolio investments and of business opportunities diversification at the global level, but also of higher capital market integration, investors critically evaluate the exchange rate risk, particularly when investments are made in emerging markets. These markets are acknowledged to have higher levels of instability, compared to developed markets, and the crises that affected emerging countries in the 1990s, but also the current financial turmoil, have demonstrated that the negative impact of exchange rate fluctuations is seriously felt by international investors. In this context, various studies raised the issue of a “legitimate” risk premium associated to investments in foreign markets that would compensate investors for taking on higher risks than in their home markets.

Research on the links between stock market returns and exchange rate movements has developed since the beginning of the 1980s, with rather mixed evidence, depending on the methodology employed. One set of studies uses APT models to identify the exposure of national stock markets or various industries within a country to exchange rate fluctuations. Aggarwal (1981) is among the first researchers that study stock prices and exchange rates and he finds a significant relationship between the appreciating US dollar and US stock prices, but a few years later Soenen and Hennegar (1988) find an opposite relationship between the two variables. Jorion (1990) examines US multinational corporations exposure to exchange rate risk for a 17 years period and concludes that share prices of these companies are not systematically influenced by changes in nominal exchange rates. Bartov and Bodnar (1994) and Choi and Prasad (1995) confirm Jorion’s findings, while Gao (2000) and Koutmos and Martin (2003) seem to detect a more significant link between the American companies share prices and changes in the nominal exchange rate of the dollar against various currencies. Besides US companies, Dutch companies have been researched by De Jong et al. (2002) that find more significant exposures in phases of the Dutch guilder depreciation, after investigating 117 companies over a 5-year period (1994-1998). Doukas et al. (2003) examine the relation between the rate of return of Japanese companies’ shares and unexpected changes in the Japanese yen exchange rates between 1975 and 1995 and find significant exposures that positively linked to the degree of international involvement of the firm and negatively linked to the firm’s size and its financial leverage. British companies also display significant exposure, according to El-Masry

(2003), but depending to a large extent on the industry. Kyimaz (2003) investigates Turkish companies for the period 1991-1998 and finds significant exposures to exchange rate risk, but also variable in magnitude from one industry to another.

For the Romanian market, Horobet and Lupu (2005) analyse the January 2000 – October 2005 period and find weak significant exposures of stock returns to the euro-leu and US dollar-leu exchange rate. Their findings may be explained by the reduced importance of the euro or dollar denominated cash flows and/or assets and liabilities in the financial flows of Romanian companies, by the possible presence of internal hedging operations or by the low capital market efficiency. Horobet and Lupu (2006) extend their analysis to ten CEE countries (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia, Slovakia and Romania) by taking into consideration changes in these countries' real exchange rates measured against the U.S. dollar and the euro. The results indicate the lack of contemporaneous and lagged exposures, which may be interpreted as a failure of stock market investors to incorporate changes in the competitive positions of firms in these countries in the stock returns. More recently, Horobet and Dumitrescu (2008) investigated the exposure of national stock markets from four countries in Central and Eastern Europe – Czech Republic, Hungary, Poland and Romania – to nominal and real exchange rate risk, using monthly data on exchange rates and stock market returns over the January 1999 – December 2007 timeframe. They find that companies from the region show contemporaneous and lagged exposure to nominal and real exchange rate risk and that these exposures are of the same type in all countries, suggesting a similarity in the economic structure in terms of foreign operations activity – exporting versus importing. Romania is the country where the evidence for exposure is mostly limited, indicating a lower market efficiency and a poorer understanding from the part of capital market investors of Romanian companies operations.

The other direction of research on the study of the interrelationships between stock prices and exchange rates was developed through the use of cointegration and Granger causality tests to study the dynamic and bi-directional relation between exchange rates and stock prices. Kim (2003) investigates the existence of long-run equilibrium relationships among the aggregate stock price, industrial production, real exchange rate, interest rate and inflation rate in the United States, applying Johansen's cointegration methodology and he finds that for the 1974-1998 period the S&P 500 index is positively related to the industrial production but negatively related to the other variables. Dong et. al (2005) examine six emerging Asian countries over 1989 and 2003 and find no cointegration between their exchange rates and stock prices, but they detect bi-directional causality in Indonesia, Korea, Malaysia and Thailand. Except for Thailand, the stock returns show significantly negative relation with the contemporaneous change in the exchange rates, which

implies that currency depreciations generally accompany falls in stock prices. Ibrahim (2000) studies the interactions between the foreign exchange market and the stock market in Malaysia and his results indicate that despite the lack of a long-run relationship between the exchange rate measures and stock prices in bivariate cointegration models, there is evidence of such long-run relations in multivariate models that include money supply and foreign reserves. Murinde and Poshakwale (2004) investigate price interactions between the foreign exchange market and the stock market in three European emerging financial markets – Hungary, Poland and Czech Republic – before and after the adoption of the euro. Using daily observations on both stock prices and exchange rates, they find that for the pre-euro period stock prices in these countries uni-directionally Granger cause exchange rates only in Hungary, while bi-directional causality relations exist in Poland and Czech Republic. After the euro adoption, exchange rates uni-directionally Granger-cause stock prices in all three countries. The authors interpret these results as being consistent with the dynamic nature of the transition process, suggesting that causality is much easier to detect as the markets become more integrated with the EU. Horobet and Ilie (2007) study the Romanian market using cointegration and Granger causality tests applied to monthly data over the 1999-2007 period and conclude that there is a long-term equilibrium relationship between the stock market performance and the nominal and real effective exchange rates of the Romanian currency, but the information is generally transmitted from the stock prices to exchange rates with a one-month lag in the case of cointegrated variables. The exchange rates are the leading variables for the stock prices and the stock market adjusts quite dramatically to changes in the exchange rates in one month time.

In this paper, we examine the impact of changes in the Romanian currency – leu – exchange rates against the US dollar and the euro on an investment in the Romanian stock market from the perspective of a US dollar and euro based investor. Our analysis is directed towards identifying the significance of exchange rate volatility on the total risk of a Romanian investment from the point of view of two potential investors having the US dollar and the euro as reference currencies. At the same time, we aim at discovering the contribution that currency risk makes to the correlation between the Romanian stock market returns, on one hand, and US market and European markets, on the other hand. The correlation between international markets is an important building block of the risk associated to an international portfolio of assets and we are particularly interested in examining it in normal conditions as well as in times of financial turbulences.

The paper is structured as follows. Section 2 explains the sources of currency volatility contribution to the risk-return outcome of an international investment, Section 3 examines the evolution of the Romanian currency after the introduction of the euro in 1999 and discusses its significance from the perspective of a foreign

investor present in the Romanian market, Section 4 presents the data and the methodology employed in this study, Section 5 discusses the results and Section 6 concludes.

2. CURRENCY RISK AND THE RISK-RETURN PROFILE OF INTERNATIONAL INVESTMENTS

The evolution of exchange rates represents nowadays a major source of concern from both a micro- and a macroeconomic perspective, given the quasi-generalised adoption of floating rates since 1973. The exchange rate is one of the most synthetic prices in an economy and it can be thought as the expression of a general equilibrium among the market for real goods and services, the money market and the capital market, which has the obvious potential of influencing the general economic equilibrium in any economy. The exchange rate behaviour is influenced, at its turn, by the degree of economic growth, the changes in the general level of prices (inflation), the industry structure of the economy, the country's level of international competitiveness and its degree of trade and financial openness, the political stability and governments' ability to solve internal crises which might occur. This diversity of factors that impact directly or indirectly the exchange rate raises the issue of the easiness of managing such a complex and dynamic macroeconomic variable. The choice of an optimal exchange rate regime is an unresolved question of international macroeconomics, as the history of international finance shows. From the band fixed exchange rates in the '40s, '50s and '60s, countries have gradually moved towards more flexibility in their exchange rates, but a number of "intermediate regimes" have been employed at the international level with the aim of better accommodating a country's specificity with the exchange rate policy. Nevertheless, the currency crises that occurred in the last two decades have generated a growing support for clear cut exchange rate regimes – such as hard pegged rates or free floating rates -, considered more appropriated in the current framework of higher financial integration fuelled by unprecedented capital mobility at the global level.

The impact of exchange rate fluctuations is felt at the level of risk and return for any investment made abroad, in a different currency than the reference currency of the investor. Jorion (1985), Levy and Lim (1994), Eun and Resnick (1994) and, more recently, Bugar and Maurer (2002) have shown that investors that do not control for the uncertainty associated to exchange rate movements are in the difficult position of obtaining gains from international investments that are not able to exceed the costs attached to holding assets abroad. The explanation resides in the correlations between exchange rates, which are not small enough to provide investors with enough input for achieving good diversification in an international portfolio.

The rate of return that an investor obtains from holding a foreign asset can be decomposed in three parts: the income provided by any cash flows received during the holding period ($CF_{t-1/t}$), the capital gain or loss provided by the changes in the price of the foreign asset and the currency gain or loss. Specifically,

$$r^{HC} = \left[1 + \frac{(P_t^{FC} - P_{t-1}^{FC}) + CF_{t/t-1}^{FC}}{P_{t-1}^{FC}} \right] \times (1 + s) - 1 \quad (1)$$

where, P_t^{FC} and P_{t-1}^{FC} denote the prices in the local currency of the foreign asset at moments t and $t-1$, respectively,

$CF_{t/t-1}^{FC}$ is the cash flow provided by the foreign investment, also in the local currency (it can be either a dividend or an interest), and s is change in the exchange rate of the foreign currency against the home currency of the investor.

Equation (1) may be re-written in the following manner:

$$r^{HC} = r^{FC} + s + (r^{FC} \times s) \quad (2)$$

where, r^{HC} is the return in the home currency of the investor,

r^{FC} is the return of the investment in the foreign asset in local currency terms, and s is the change in the exchange rate between the two currencies.

Since typically the product $(r^{FC} \times s)$ takes small values, it is ignored for most computations of the return and risk.

One may easily observe that exchange rate changes have the potential of either increasing or decreasing the return that is finally available to an investor: when the foreign currency appreciates against the home currency of the investor, this magnifies the return in the foreign currency; the reverse is true in case of a depreciation of the foreign currency against the currency relevant to the investor.

The risk of an asset is also different when measured in different currencies. If we ignore the cross-product $(r^{FC} \times s)$, we can prove that the variance of a return measured in the home currency of the investor equals the variance of the sum of the local currency return and of the exchange rate movement:

$$\text{var}(r^{HC}) = \text{var}(r^{FC} + s) = \text{var}(r^{FC}) + \text{var}(s) + 2 \text{cov}(r^{FC}, s) \quad (3)$$

or

$$\text{var}(r^{HC}) = \text{var}(r^{FC}) + \text{var}(s) + 2 \text{corr}(r^{FC}, s) \sigma(r^{FC}) \sigma(s) \quad (4)$$

where, $\text{var}(r^{HC})$ is the variance of the return measured in the home currency of the investor,

$\text{var}(r^{FC})$ is the variance of the return measured in the foreign currency,

$\text{var}(s)$ is the variance of exchange rate changes,

$\text{cov}(r^{FC}, s)$ is the covariance between the return in the foreign currency and exchange rate changes,

$\text{corr}(r^{FC}, s)$ is the correlation between the return in the foreign currency and exchange rate changes,

$\sigma(r^{FC})$ is the standard deviation of return measured in the foreign currency and

$\sigma(s)$ is the standard deviation of exchange rate changes.

As the correlation is never greater than 1, the foreign asset risk and the currency risk are not additive, and we can prove that

$$\sigma(r^{HC}) \leq \sigma(r^{FC}) + \sigma(s) \quad (5)$$

The difference between $\sigma(r^{HC})$ and $\sigma(r^{FC})$ is called the contribution of currency risk to the risk of an international investment and we may demonstrate that it largely depends not only on the exchange rate volatility, but also on the link between the exchange rate and the foreign asset returns.

There are a few points to mention for what concerns the overall impact of currency risk on an international investment. First, currency fluctuations affect both the total return and the volatility of any foreign-currency denominated investment and, from time to time, the effects of currency fluctuations on the investment return may exceed that of capital gain or income, especially over short periods of time. At the same time, empirical studies indicate that currency risk, as measured by the standard deviation of the exchange rate movement, is smaller than the risk of the corresponding stock market. Second, the exchange risk of an investment may be hedged for major currencies by selling futures or forward currency contracts, buying put currency options, or even borrowing foreign currency to finance the investment, therefore currency risk can be easily eliminated in international investment strategies and does not represent a definite obstacle for international investments. Third, the contribution of currency risk should be measured for the total portfolio rather than for individual markets or securities, because part of that risk gets diversified away by the mix of currencies represented in the portfolio, as Biger (1979), Giovannini and Jorion (1989) and Harvey et al. (2002) show. Fourth, the contribution of currency risk decreases with the length of the investment horizon, so an investor with a long time horizon should care less about currency risk than should an investor who is concerned about monthly fluctuations in the portfolio's value. For example, Froot (1993) shows that for a horizon of more than one decade currency risk is irrelevant to an international investor.

3. ROMANIAN CURRENCY EXCHANGE RATES: 1999-2009

The enlargement of the European Union in May 2004, by the accession of ten Central and South-Eastern European countries, of which eight were former communist countries (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia), followed by a second wave of accession at the beginning of 2007, that also involved two former communist countries (Bulgaria and Romania), represents an economic and political experiment that is entirely different from all previous accessions. The differences stem not only from the diversity of these countries in terms of culture, population size, territory dimension, but also from the macroeconomic specificity of the region. It is obvious the fact that the integration process of all these countries will directly impact their money and currency markets, with a precise goal represented by the adoption of the common euro currency. The adoption of the euro is by far the greatest challenge all these countries were faced with since the moment of their accession to EU, and one of these countries – Slovenia – proved that the criteria imposed by the EU in order to adopt the euro can be achieved, as the country adopted the euro as its currency at the beginning of 2007.

At present, the exchange rate regimes of countries from Central and Eastern Europe are rather diverse, but this diversity may be explained by the structural diversity of the group and by their need to actively control inflation and exchange rates (see Table 1). In the past ten years, five of the CEE emerging economies changed their monetary policy rule by adopting the inflation targeting regime: the Czech Republic in 1998, Poland in 1999, Hungary in 2001 and Romania in 2005. All these countries will see their currencies replaced by the Euro, but not before spending at least two years in the ERM II. This multilateral exchange rate arrangement was put in place on January 1st, 1999, with the purpose of ensuring the convergence of the economies that were participating in the system. The final goal is a smoother adoption of the Euro, by inducing higher stability of exchange rates against the Euro. Joining ERM II presupposes the establishment of a fixed exchange rate of the respective currency against the Euro with a variation margin of $\pm 15\%$. The countries currently engaged in ERM II are Denmark (with a margin of only $\pm 2,5\%$) and Lithuania, Estonia and Latvia (all with a margin of $\pm 15\%$). In reality, the effective margins followed by these currencies are smaller: the Danish krone operates at a margin lower than 1%, the Latvian lats at a 1% margin, while the Estonian kroon and the Lithuanian litas have 0% margins. This indicates a higher commitment of the central banks in these countries to ensure the highest possible level of stability of exchange rates against the Euro.

Table 1 Exchange rate regimes in CEE countries

<i>Country</i>	<i>Currency</i>	<i>Exchange rate regime</i>	<i>ERMII participation since</i>
Czech Republic	Koruna (CZK)	Traditional administered floating	NO
Hungary	Forint (HUF)	Exchange rate varies with the Euro within $\pm 15\%$	NO
Poland	Zloty (PLZ)	Independent floating	NO
Romania	Leu (RON)	Managed floating	NO
Slovenia	Tolar (SIT)	Euro	2004
Slovakia	Koruna (SKK)	Managed floating	2006
Latvia	Lats (LVL)	Exchange rate fixed to currency basket	2005
Lithuania	Litas (LTL)	Monetary council	2004
Estonia	Koruna (EEK)	Monetary council	2004

Source: IMF, European Central Bank

In Romania, the exchange rate policy implemented since 1997 is the managed floating, with no obligation officially assumed by the Central Bank (National Bank of Romania) to intervene in the foreign exchange market for specifically defending an exchange rate of the domestic currency against a foreign currency or a basket of currencies. First, the US dollar was used as a reference currency, but after the introduction of the euro in 1999 the US dollar was replaced by a currency basket formed of the US dollar (40%) and the euro (60%) until 2003. The basket suffered successive alterations: in January 2004 the euro's weight in the basket was increased to 75% and the US dollar weight dropped to only 25%, and since November 2004 the reference basket was fully replaced by the euro, which is now the reference currency for the leu. Still, this does not imply a peg of the leu against the euro, as one may be inclined to believe at first sight.

Figure 2 and Figure 3 show the evolution of the Romanian currency against the euro and the US dollar in terms of end-of-month values of exchange rates from January 1999 until June 2009 (both exchange rates are denominated in domestic currency units per one unit of foreign currency). In order to have a better view on the trend of exchange rate fluctuation we have adjusted the time series by applying the Hodrick-Prescott filter (HPTrend in Figures 1 and 2). The Hodrick-Prescott filter is a smoothing method that is widely used for obtaining a smooth estimate of the long-term trend component of a series of data. The method was first proposed by Hodrick and Prescott (...) for postwar U.S. business cycles. The tool uses a two-sided linear filter that computes the smoothed series s of a series y by minimizing the variance of y around s , subject to a penalty parameter λ that constrains the second difference of s . The Hodrick-Prescott (HP) filter minimizes

$$\sum_{t=1}^T (y_t - s_t)^2 + \lambda \sum_{t=2}^T ((s_{t+1} - s_t) - (s_t - s_{t-1}))^2$$

The parameter λ controls the degree of smoothness of the series variance: the larger the value of λ , the smoother the variance. When $\lambda = \infty$, s approaches a linear

trend. We have used 14400 as the value of λ , suggested by E-views as appropriate for the work on monthly data.

Both figures show the relatively similar evolution of the Romanian currency exchange rate: a rather abrupt and predictable depreciation against the euro (until the end of 2004) and the US dollar (until the beginning of 2004), followed by a reversed trend of an appreciating RON until the beginning of 2007 (against the euro) and the end of 2007 (against the US dollar), with the subsequent period of again depreciating RON against both currencies until today. An interesting feature of both exchange rates is their increased volatility that accompanied the change in trend since 2004, fuelled by a higher volume of transactions in the Romanian foreign exchange market, particularly in the interbank market) and the less frequent but more massive interventions of the Central bank in the market.

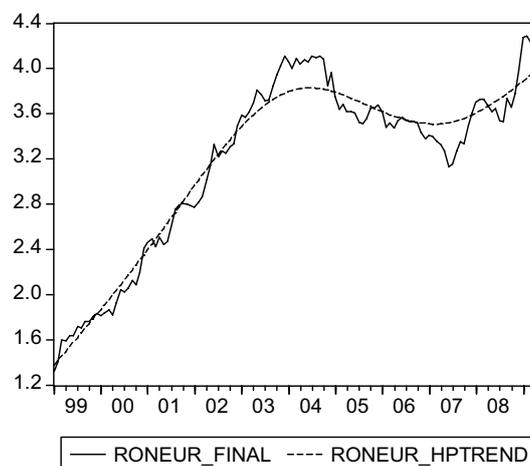


Figure 2 *Monthly RON-EUR exchange rate – observed values and HP filter, January 1999–June 2009*

As the results from Table 2 indicate, the volatility of both exchange rates was fluctuating from one year to the other, but we may notice high values for 1999, 2000, 2001 and then 2004. In 2005, 2006 and 2007 the monthly and annual volatilities dropped, but they returned to high values in 2008. Another view over the volatility in exchange rates is offered by Figure 4, which shows the rolling 12-month standard deviations for the RON-EUR and RON-USD exchange rates. Three features are interesting, in our view, as they emerge from Figure 4: first, the volatility of the RON-EUR exchange rate exceeded the volatility in the RON-USD exchange rate until July 2003, afterwards the RON-USD volatility was higher and it remained higher until end 2008; second, there are three peaks in volatility for the RON-EUR exchange rate: the first one starts at end 2000 and ends at beginning of 2002, the second one covers the year 2005 and the last one is observable towards the end of 2008; third, the RON-USD exchange rate also shows only peaks in volatility: the first one in 2005, matching almost fully the RON-EUR volatility peak and the second one at end 2007 and beginning 2008, with some prolongation over 2008.

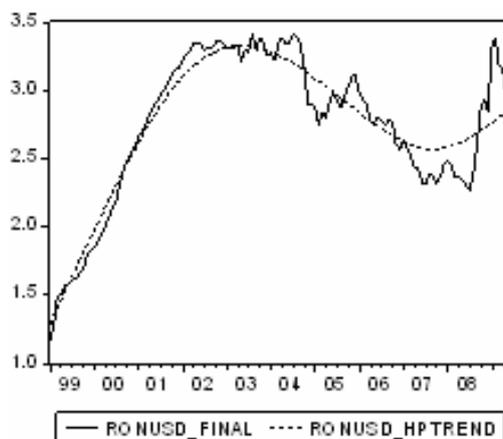


Figure 3 Monthly RON-USD exchange rate – observed values and HP filter, January 1999- June 2009

Table 2 RON exchange rate volatility, 1999-2008

	Average monthly standard deviation of exchange rate changes		Annual standard deviation of exchange rate changes	
	RON - EUR	RON - USD	RON - EUR	RON - USD
1999	0.0395	0.0451	0.1368	0.1561
2000	0.0343	0.0098	0.1188	0.0341
2001	0.0267	0.0052	0.0926	0.0182
2002	0.0256	0.0106	0.0886	0.0366
2003	0.0172	0.0241	0.0595	0.0836
2004	0.0273	0.0341	0.0945	0.1181
2005	0.0162	0.0313	0.0560	0.1084
2006	0.0161	0.0259	0.0557	0.0897
2007	0.0264	0.0273	0.0914	0.0945
2008	0.0330	0.0622	0.1144	0.2154

Note: Annual standard deviation values are obtained from monthly standard deviations values multiplied by $\sqrt{12}$.

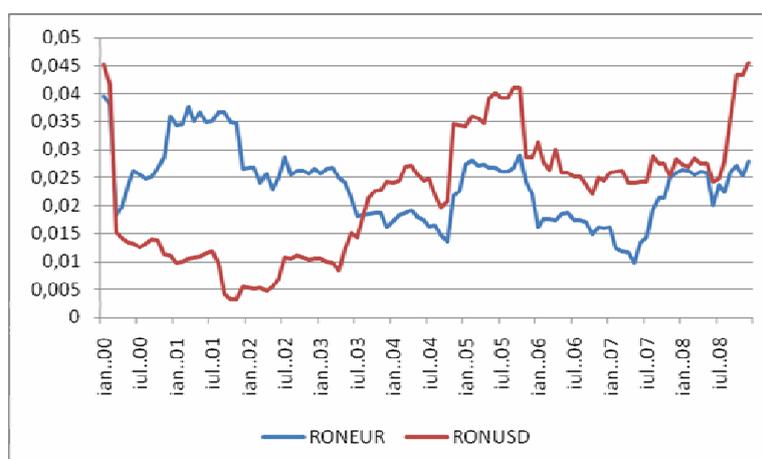


Figure 4 Rolling monthly standard deviations of changes in the RON-EUR and RON-USD exchange rates

Note: The figure shows the rolling 12-month standard deviations in the RON-EUR and RON-USD exchange rates, with the first observation, January 2000, indicating the standard deviation of logarithmic changes in the exchange rate for the twelve previous month.

As mentioned above, one of the reasons for the increased volatility of exchange rates relies in the volume of transactions in the Romanian foreign exchange market. Although its volume is still at low levels compared to mature foreign exchange markets, Figure 5 shows a marked increase in the volume of transactions starting from mid-2005, as compared to the previous period: in January 2000, the transactions in the foreign exchange market were only of 85.78 million euro, while in June 2009 the volume reached 1,334.00 million euro, with a peak of 2,572.00 million euro in October 2008. The new structural characteristics of the Romanian foreign exchange market make it appropriate for high volatility: (1) the market has the lowest volume as compared to the markets of other emerging countries in the region⁹; (2) most operations in the market are of a very short maturity¹⁰; (3) financial derivatives has the lowest share in the market, which makes the hedging of exchange rate risk a difficult endeavor; (4) non-residents investors hold 90% of the derivatives market.

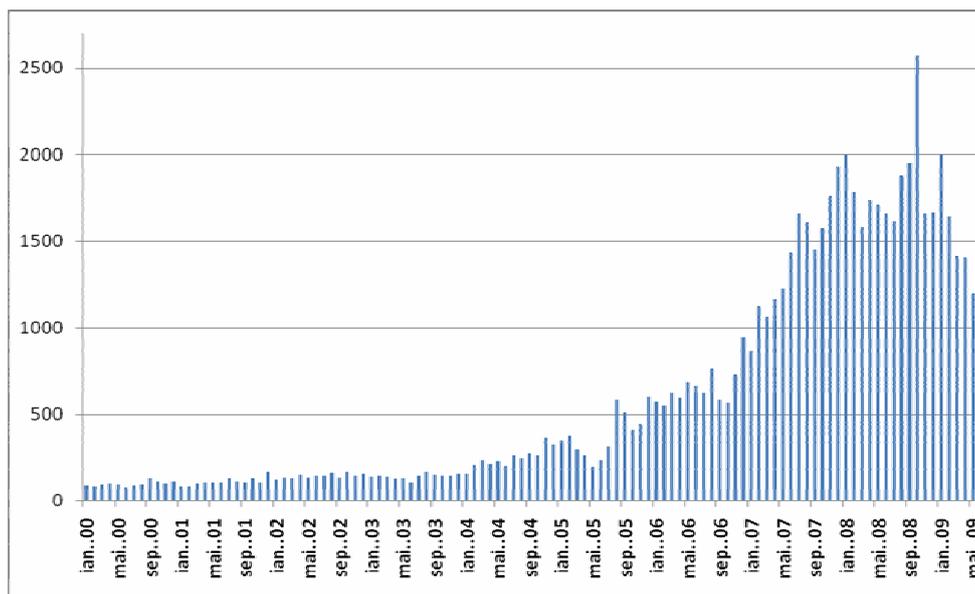


Figure 5 Romanian foreign exchange market: Volume of transactions, million euro
 Source: National Bank of Romania database

The central bank position in the foreign exchange market changed from a net seller of foreign currencies before 2002 to a net purchaser until present. This change was in line with the National Bank of Romania's objectives established at the end of 2000: the consolidation of the official reserves, a preventive action against an excessive appreciation of the domestic currency and a gradual disinflation process.

⁹ According to BIS Triennial Central Bank Survey 2007, the average daily volume of transactions in the foreign exchange market in April 2007 was 2,510 million USD in Romania, 3,362 million USD in Turkey, 4,947 million USD in Czech Republic, 6,715 million USD in Hungary and 8,813 million USD in Poland.

Due to the apparent contradiction between these objectives, the central bank chose two instruments for attaining them. Aiming at consolidating reserves and at limiting the real appreciation of the domestic currency in an attempt to support the Romanian products' export competitiveness, the central bank purchased impressive amounts of foreign currencies that were able to cover more than four months of imports at end 2004 and six months at end of 2007. The high accumulation of reserves contributed to the decrease of Romania's country risk and the increase in the country's rating, which in turn generated an improved access to external financing. At the same time, this access to external funds was accompanied by the fight against the nominal and real appreciation of the domestic currency. When, at end 2003, the central bank diminished the pace of foreign currencies' purchases, the RON slightly appreciated against the reference basket.

In October 2004 the central bank decided to reduce the frequency of its interventions in the foreign exchange market and to make them more massive and less predictable. The goal was to induce a higher volatility in the exchange rate which would discourage substantial short-term capital inflows in the Romanian economy. In only a few months, the RON nominal exchange rate against the euro reached a value of 38.49 RON/EUR, which represented an appreciation of 6.4% of the Romanian currency compared to its value of 41.127 RON/EUR in October 2004. In March 2005 the exchange rate was 36.422 RON/EUR, indicating a further appreciation of 5.68% of the domestic currency against the euro. The evolution came as a surprise for Romanian economic operators, accustomed with a depreciating currency and rather predictable exchange rates.

In 2005, the National Bank of Romania adopted a new monetary rule, inflation targeting, accompanied by the (almost) full capital account liberalization and the domestic currency denomination. At the end of 2005, the inflation rate, which decreased dramatically since 1999, reached 8.6 per cent, a value that is slightly higher than the extended band of 7.5 per cent \pm 1 per cent, but it is worth mentioning that the central bank has to face during the year the issue of economy overheating and of soaring capital inflows fuelled by high interest rates in the banking market.

In 2006, the domestic currency appreciated by over 8 percent against the euro and nonresidents started to become major contributors to the transactions in the foreign exchange market. The volume of average daily transactions due to nonresidents grew almost four times in 2006 compared to 2005, exceeding the transactions performed by residents. The evolution was due to high returns in RON-denominated assets determined by the capital account liberalization, the country's

¹⁰ According to the same BIS Survey, in April 2007, 81% of transactions in the Romanian foreign exchange market had a maturity of less than seven days, compared to 58% in the Czech Republic and 52% in Turkey.

anticipated joining of the European Union and favourable conditions in the international financial markets. 2007 was a year of high volatility in the foreign exchange market, with evolutions in the exchange rate of the RON that considerably reduced the predictability of decisions at micro- and macroeconomic level. During the first semester of the year, the domestic currency appreciated by 8 percent in nominal terms against the euro, and was followed by a sharp depreciation between August 2007 and March 2008 (18% against the euro). The volatility in the exchange rate reached the highest level in November 2007, when Standard & Poor's upgraded the credit rating of the country from "stable" to "positive", which raised concerns in the market regarding a possible important correction of the RON value. The depreciating trend of the RON in the first part of 2008 continued in the second part of the year and until mid-2009, which severely inflicted the operators' reaction ability to the global turbulences. Besides the global factors that generated this evolution, mainly related to the high uncertainty associated to the state of the global financial system and the possible repercussions at the level of emerging markets, the worsening of Romania's credit credit played undoubtedly a role in the RON movements. During this period, the central bank interventions in the foreign exchange market aimed at reducing the excessive variations in the exchange rates of the RON, but they were made more difficult by the significant decrease of market liquidity, due to fund withdrawals by nonresidents¹¹.

The crisis that emerged at the international level in 2008 hit Romania forcefully. There are five main channels that assist the propagation to the crisis to Romania¹²: (1) the foreign trade, through the low share of exports in Romanian GDP – only 24% at end 2008, compared to more than 60% for other countries in Central and Eastern Europe; (2) the confidence level of residents and nonresidents, reflected in high risk aversion and decline in foreign direct investments; (3) the wealth and balance sheet; (4) the dependency of Romanian banks on foreign financing, coupled with the high debt service share in GDP (25.4%); (5) the exchange rate, affected by low capital inflows and significant depreciation pressures. The perspectives for the Romanian currency at the end of 2009 and 2010 are not optimistic. In their most recent quarterly report¹³, UniCredit analysts estimate an exchange rate of the domestic currency of 4.50 against the euro for the end of 2009 and of 3.10 against the US dollar, but, at the same time, the forecasts for 2010 and 2011 are more optimistic: an exchange rate of 4.28 RON/EUR and 3.14 RON/USD for end of 2010 and of only 4.00 RON/EUR and 2.96 RON/USD for end of 2011. The Government

¹¹ In November 2008, the volume of transactions in the Romanian foreign exchange market diminished by 60% against the previous month, which market the debut of a decrease in foreign exchange activity until April 2009.

¹² Isărescu, M.– "The Global Financial Crisis, Bail-outs and Bail-ins", Presentation at Central & South East European Financial Forum, 19-22 May 2009, Bucharest

¹³ UniCredit Group – "CEE Quarterly Report", 3/2009

took into account an average 4.00 RON/EUR for the 2009 budget plan and 4.09 RON/EUR for end of December 2010.

4. DATA AND METHODOLOGY

We use daily data on stock indices and exchange rates. We employ three stock market indices, to capture the performance of the Romanian market, the US market and the European market. All indices are collected from the Morgan Stanley Capital International Database in Romanian lei (RON), US dollars (USD) and euros (EUR), respectively. The exchange rates are collected from the National Bank of Romania time series database and refer to the Romanian leu against the US dollar and the euro. The following time series are calculated from the data for our research: logarithmic rates of return in local currencies, logarithmic rates of return in US dollars and euros, exchange rates changes, measures of market correlations.

The analysis covers the period starting on December 26, 2007 and ending on August 4, 2009. The period is split in two equal parts around the date of October 15, 2008, considered the day when the current financial crisis intensified. The day was chosen as it recorded the largest daily drop in the value of the MSCI US index since 1999 – more precisely, the change in the index value was -9.51% . The analysis on these two sub-periods allows us to observe into more detail whether in times of financial instability the importance of currency risk for an international investor changes as compared to more stable periods. Each of the two sub-periods is again split in ten equal intervals of 20 observations, aiming at studying the time-varying attributes of stock market returns and risks, currency volatility and correlations.

To measure the extent to which the Romanian market volatility and correlations with the US and European markets are influenced by exchange rate fluctuations, we first decompose the US dollar and euro returns obtained in the Romanian market as following:

$$r_t^{HC} = \ln P_t^{RON} S_t^{HC/RON} - \ln P_{t-1}^{RON} S_{t-1}^{HC/RON} = \ln(P_t^{RON} - P_{t-1}^{RON}) - \ln(S_t^{HC/RON} - S_{t-1}^{HC/RON}) \quad (6)$$

$$= r_t^{RON} + S_t^{HC/RON}$$

where, r_t^{HC} is the return in the Romanian market denominated in the home currency of the investor,

P_t^{RON} is the Romanian stock market index at time t, denominated in RON,

r_t^{RON} is the RON denominated return in the Romanian stock market at time t/t-1,

$S_t^{HC/RON}$ is the exchange rate of the Romanian currency against the US dollar and the euro, respectively, and

$s_t^{HC/RON}$ is the exchange rate fluctuation of the Romanian currency relative to the US dollar and the euro at time $t/t-1$. HC is represented by the US dollar and the euro.

Equation (6) shows that the return obtained from a US investor in the Romanian market index is composed of the return in RON (local currency) and the exchange rate fluctuation. The same is true for the return obtained by a euro-based investor.

Moving to the risk of an investment made in the Romanian market, we compute the variance of returns as in equation (3), as follows:

$$\text{var}(r^{HC}) = \text{var}(r^{RON}) + \text{var}(s^{HC/RON}) + 2 \text{cov}(r^{RON}, s^{HC/RON}) \quad (7)$$

The proportion of the volatility of Romanian returns denominated in HC (US dollar and euro, respectively) attributable to exchange rate fluctuations that we denote by λ , can be computed as the following:

$$\lambda = \frac{\text{var}(s^{HC/RON}) + 2 \text{cov}(r^{RON}, s^{HC/RON})}{\text{var}(r^{HC})} = 1 - \frac{\text{var}(r^{RON})}{\text{var}(r^{HC})} \quad (8)$$

Equation (8) shows that the proportion of Romanian market volatility that is explained by changes in the Romanian currency exchange rate against the US dollar or the euro depends not only on the volatility present in the foreign exchange market, but also on the covariance of the Romanian stock market returns and exchange rate changes. This implies that exchange rate volatility will not necessarily induce more volatility in the returns available to foreign investors, due to the value and sign of the covariance. The contribution of exchange rate volatility to the risk beared by a foreign investor in the Romanian market depends on the ratio between the covariance and the variance of exchange rate changes. More specifically, if $\frac{\text{cov}(r^{RON}, s^{HC/RON})}{\text{var}(s^{HC/RON})} > -0.5$ exchange rate fluctuations represent an additional sources of risk for the investors. Conversely, if $\frac{\text{cov}(r^{RON}, s^{HC/RON})}{\text{var}(s^{HC/RON})} \leq -0.5$ exchange rate fluctuations do not contribute to the volatility of returns in the home currency of the investor. We observe the evolution of λ for the entire period, the two sub-periods and each of the ten intervals in the sub-periods.

Besides on the interest a foreign investor might have in investing in the Romanian market per se, it would be also relevant for him to analyze the contribution that exchange rate risk has on the correlation between the Romanian market and his home market, presuming his aspiration to diversify the risk in his home market by investing abroad. We study this contribution starting from the

correlation coefficient between the return in the Romanian market denominated in the home currency of the investor, r_t^{HC} , and the return obtained by the investor in his home market, denominated in home currency units, r_t :

$$\begin{aligned} \rho(r_t^{HC}, r_t) &= \frac{\text{cov}(r_t^{HC}, r_t)}{\sigma(r_t^{HC}) \times \sigma(r_t)} = \frac{\text{cov}((r_t^{RON} + s_t^{HC/RON}), r_t)}{\sigma(r_t^{HC}) \times \sigma(r_t)} \\ &= \frac{\text{cov}(r_t^{RON}, r_t) + \text{cov}(s_t^{HC/RON}, r_t)}{\sigma(r_t^{HC}) \times \sigma(r_t)} = \frac{\text{cov}(r_t^{RON}, r_t)}{\sigma(r_t^{HC}) \times \sigma(r_t)} + \frac{\text{cov}(s_t^{HC/RON}, r_t)}{\sigma(r_t^{HC}) \times \sigma(r_t)} \end{aligned} \quad (9)$$

Equation (9) shows that the exchange rate volatility influences the correlation between the two markets' returns, and its effective contribution to the correlation, denoted by ϕ , can be computed as follows:

$$\begin{aligned} \phi &= \frac{\text{cov}(s_t^{HC/RON}, r_t)}{\sigma(r_t^{HC}) \times \sigma(r_t)} \div \rho(r_t^{HC}, r_t) = \frac{\rho(s_t^{HC/RON}, r_t) \times \sigma(s_t^{HC/RON}) \times \sigma(r_t)}{\rho(r_t^{HC}, r_t) \times \sigma(r_t^{HC}) \times \sigma(r_t)} \\ &= \frac{\rho(s_t^{HC/RON}, r_t) \times \sigma(s_t^{HC/RON})}{\rho(r_t^{HC}, r_t) \times \sigma(r_t^{HC})} \end{aligned} \quad (10)$$

Equation (10) allows us to observe that for given values of $\rho(r_t^{HC}, r_t)$, the values of ϕ depend on the correlation between HC market returns with the change in the exchange rate of the HC against the RON and the ratio between the exchange rate volatility and the volatility of the Romanian market return denominated in the HC of the investor. As in the case of λ , we observe the evolution of ϕ for the entire period, the two sub-periods and each of the ten intervals in the sub-periods.

5. RESULTS

Figure 6 and Figure 7 show the performance obtained by an investment of 100 units made in December 26, 2007 until August 4, 2009, in US dollars and euros. For a US dollar based investor, an investment in a portfolio such as MSCI Romania brought returns rather similar with an investment in MSCI US until August 2008, but afterwards the performance of MSCI US was better than the performance of MSCI Romania denominated in US dollars. The main explanation behind this performance relies in the depreciation of the Romanian currency against the US dollar in the second sub-period in our analysis. Overall, at the end of period, an investment of 100 at the beginning of the period would have brought the US investor with a loss of 32.53% if invested in the US index and of 44.41% when invested in the Romanian index. Interestingly, at the end of the first sub-period, the losses were similar for the US based investor: 33.48% for MSCI US and 41.89% for MSCI Romania.

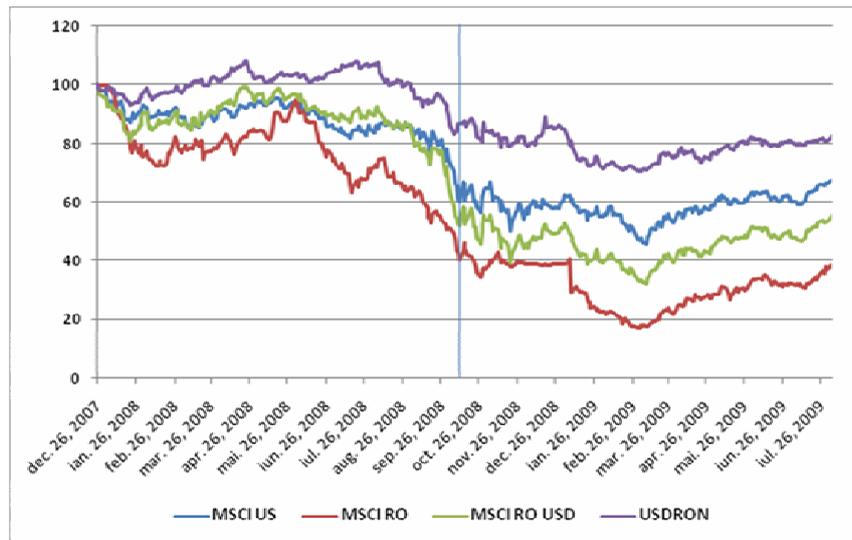


Figure 6 Market indices and USD-RON exchange rate

A similar framework is encountered in the case of a euro-based investor: an investment in a portfolio such as MSCI EMU brought returns rather similar with an investment in MSCI Romania until October 2008, but afterwards the performance of MSCI EMU was better than the performance of MSCI Romania denominated in euro. The main explanation behind this performance relies, again, in the depreciation of the Romanian currency against the euro in the second sub-period in our analysis. Overall, at the end of period, an investment of 100 at the beginning of the period would have brought the eurozone investor with a loss of 40.67% if invested in MSCI EMU and of 51.13% when invested in the Romanian index. At the end of the first sub-period, the losses were also similar: 38.59% for MSCI EMU and 43.48% for MSCI Romania. The analysis suggests that during more turbulent times, as the ones recorded in the second sub-period, investors were better off if invested in their home markets, as compared to the Romanian market, when they are also hit by changes in the exchange rates.

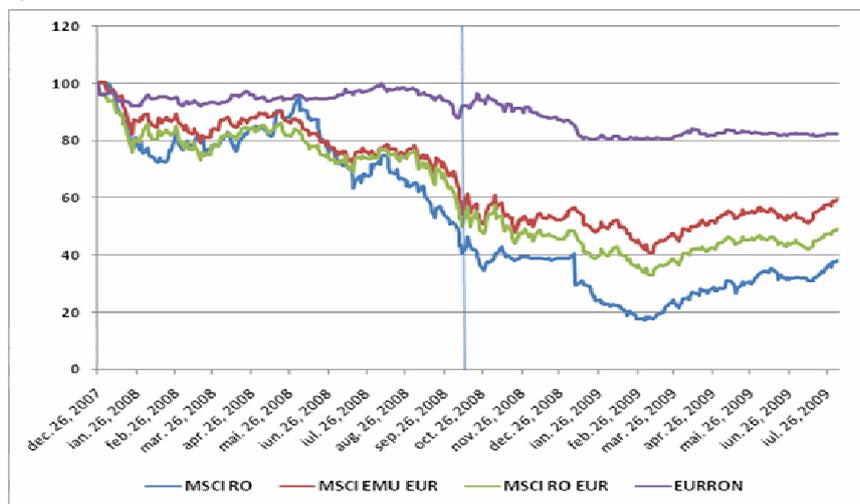


Figure 7 Market indices and EUR-RON exchange rate

Another perspective on the performance of the two investment strategies (investing at home or abroad) is provided by Table 3 for the US dollar based investor and by Table 4 for the euro based investor. In US dollar terms, the daily mean return over the entire period was slightly negative (-0.09%) for MSCI US, which was better than the return provided by an investment in the Romanian market (-0.23%) in RON, and the one in the Romanian market converted in USD (-0.14%). Also, the volatility of an investment in the US market was lower than the one in the Romanian market in RON or USD: 2.35% compared to 3.09% and 2.69%, respectively. When we split the analysis into the two-subperiods, the results, although different in numbers, are similar: the investment in MSCI US brought higher mean average returns in both sub-periods and lower standard deviations compared to the investment in MSCI Romania. Interestingly, though, the mean return for the second sub-period is slightly higher than the mean return for the first sub-period, which may be explained by the timid recovery of stock markets in the first part of 2009.

Table 3 *Descriptive statistics of stock market and exchange rate returns – USD denominated*

	MSCI US - USD	MSCI RO RON	USD RON	MSCI RO - USD
Overall period				
Mean return	-0.0009	-0.0023	-0.0005	-0.0014
Standard deviation	0.0235	0.0309	0.0117	0.0269
Skewness	-0.0762	-2.6882	-0.3390	-0.2799
Excess kurtosis	3.6902	27.1031	2.5179	2.8838
First sub-period				
Mean return	-0.0019	-0.0037	-0.0006	-0.0026
Standard deviation	0.0195	0.0241	0.0097	0.0213
Skewness	0.0919	-0.2896	-0.7578	-0.2263
Excess kurtosis	7.9230	1.4269	2.7484	8.0002
Second sub-period				
Mean return	0.0001	-0.0010	-0.0003	-0.0002
Standard deviation	0.0270	0.0365	0.0135	0.0315
Skewness	-0.1902	-3.2684	-0.1886	-0.3422
Excess kurtosis	1.8865	28.0825	1.8585	1.0510

For a euro-based investor, the results do not significantly differ from the US dollar investor: overall, the daily mean return over the entire period was slightly negative (-0.12%) for MSCI EMU, higher than the return provided by an investment in the Romanian market (-0.23%) in RON, and the one in the Romanian market converted in euros (-0.17%). The volatility of an investment in MSCI EMU was lower than the one in the Romanian market in RON or USD: 2.13% compared to 3.09% and 2.31%, respectively. When we split the analysis into the two-subperiods, the results, are again similar: the investment in MSCI EMU brought higher mean average returns in both sub-periods and lower standard deviations compared to the investment in MSCI Romania. In this case too, the mean return for the second sub-period is slightly higher than the mean return for the first sub-period.

Table 4 Descriptive statistics of stock market and exchange rate returns – EUR denominated

	MSCI EMU - EUR	MSCI RO - RON	EURRON	MSCI RO - EUR
Overall period				
Mean return	-0.0012	-0.0023	-0.0004	-0.0017
Standard deviation	0.0213	0.0309	0.0063	0.0231
Skewness	0.0998	-2.6882	-0.3287	0.0786
Excess kurtosis	3.1768	27.1031	3.3202	2.9184
First sub-period				
Mean return	-0.0023	-0.0037	-0.0004	-0.0027
Standard deviation	0.0199	0.0241	0.0067	0.0218
Skewness	0.2304	-0.2896	-0.5590	0.1272
Excess kurtosis	6.1273	1.4269	3.2623	5.3747
Second sub-period				
Mean return	-0.0002	-0.0010	-0.0005	-0.0007
Standard deviation	0.0227	0.0365	0.0059	0.0244
Skewness	-0.0215	-3.2684	0.0024	0.0187
Excess kurtosis	1.4059	28.0825	3.3253	1.3449

In Table 5 and Table 6 we show the results of the analysis conducted over the two sub-periods, each split in ten periods of 20 observations (days), aiming at getting a glimpse at the performance of US dollar and euro investments as the crisis was unfolding. In the first sub-period, the mean returns were negative in six of the periods for an investment in MSCI US and positive in four periods, while being negative in seven out of ten and positive in three out of ten periods for an investment in MSCI Romania denominated in US dollars. The mean returns in the first sub-period ranged between -0.87% and 0.13% for MSCI US and between -1.26% and 0.21% for MSCI Romania, indicating a higher volatility for the investment in the Romanian capital market. This increased volatility may be also observed from the higher standard deviations of mean returns for all sub-periods in the case of the investment in MSCI Romania. Another observation that is worth mentioning refers to the RON-USD volatility, lower as compared to the Romanian stock market volatility for all sub-periods, which may indicate that the contribution of exchange rate risk to the risk of an investment in the Romanian market is smaller than the exchange risk itself.

Table 5 Mean returns and standard deviations of stock markets and exchange rate – USD denominated

	MSCI US-USD		MSCI RO - RON		MSCI RO - USD		USD RON	
	Mean return	Standard deviation	Mean return	Standard deviation	Mean return	Standard deviation	Mean return	Standard deviation
<i>Sub-period 1</i>								
Period 1	-0.0054	0.0132	-0.0126	0.0199	-0.0087	0.0144	-0.0035	0.0073
Period 2	0.0002	0.0125	0.0000	0.0246	0.0021	0.0172	0.0019	0.0081
Period 3	-0.0005	0.0184	0.0000	0.0280	0.0008	0.0210	0.0014	0.0080
Period 4	0.0022	0.0124	0.0033	0.0148	0.0056	0.0109	0.0034	0.0064
Period 5	0.0009	0.0078	0.0040	0.0138	-0.0007	0.0112	-0.0016	0.0084
Period 6	-0.0024	0.0112	-0.0027	0.0159	-0.0032	0.0107	-0.0008	0.0061
Period 7	-0.0030	0.0130	-0.0127	0.0219	-0.0005	0.0118	0.0024	0.0050
Period 8	0.0013	0.0140	0.0027	0.0224	-0.0020	0.0134	-0.0033	0.0103
Period 9	-0.0041	0.0174	-0.0082	0.0201	-0.0066	0.0185	-0.0025	0.0116
Period 10	-0.0087	0.0466	-0.0108	0.0424	-0.0126	0.0498	-0.0039	0.0176

	MSCI US-USD		MSCI RO - RON		MSCI RO - USD		USD RON	
	Mean return	Standard deviation	Mean return	Standard deviation	Mean return	Standard deviation	Mean return	Standard deviation
<i>Sub-period 2</i>								
Period 1	-0.0076	0.0457	-0.0064	0.0347	-0.0126	0.0541	-0.0050	0.0219
Period 2	0.0011	0.0455	-0.0019	0.0132	0.0027	0.0477	0.0016	0.0145
Period 3	0.0011	0.0187	-0.0125	0.0716	-0.0006	0.0239	-0.0017	0.0194
Period 4	-0.0010	0.0234	-0.0136	0.0283	-0.0042	0.0335	-0.0031	0.0154
Period 5	-0.0088	0.0280	-0.0109	0.0364	-0.0102	0.0296	-0.0014	0.0085
Period 6	0.0064	0.0246	0.0159	0.0338	0.0096	0.0305	0.0032	0.0122
Period 7	0.0044	0.0184	0.0103	0.0324	0.0054	0.0209	0.0010	0.0107
Period 7	0.0017	0.0168	0.0047	0.0320	0.0037	0.0169	0.0020	0.0086
Period 8	-0.0021	0.0128	-0.0034	0.0222	-0.0030	0.0160	-0.0009	0.0089
Period 9	0.0054	0.0111	0.0082	0.0243	0.0070	0.0144	0.0017	0.0058
Period 10	-0.0076	0.0457	-0.0064	0.0347	-0.0126	0.0541	-0.0050	0.0219

For a euro-based investor, we found six periods of negative mean returns in the first sub-period and four positive for an investment in MSCI EMU and in MSCI Romania denominated in euro. In the second sub-period the mean returns were negative in six periods and positive in four for MSCI EMU, but negative in seven periods and positive in three for MSCI Romania. The returns ranged between -0.93% and 0.35% for MSCI EMU and between -0.95% and 0.55% for MSCI Romania in the first sub-period, and between -0.93% and 0.59% for MSCI EMU and between -0.98% and 0.72% for MSCI Romania in the second period. As in the case of the US dollar investments, the returns provided by the Romanian market were more risky as the ones in MSCI EMU in both sub-periods and for all periods. Also, the standard deviation of the RON-EUR exchange rate was lower for all periods than the standard deviation of the returns in the Romanian market.

Table 6 Mean returns and standard deviations of stock markets and exchange rate – EUR denominated

	MSCI EMU - EUR		MSCI RO - RON		MSCI RO - EUR		EUR RON	
	Mean return	Standard deviation	Mean return	Standard deviation	Mean return	Standard deviation	Mean return	Standard deviation
<i>Sub-period 1</i>								
Period 1	-0.0093	0.0177	-0.0126	0.0199	-0.0132	0.0180	-0.0035	0.0083
Period 2	0.0029	0.0199	0.0000	0.0246	0.0042	0.0215	0.0014	0.0061
Period 3	-0.0037	0.0164	0.0000	0.0280	-0.0046	0.0215	-0.0008	0.0075
Period 4	0.0035	0.0132	0.0033	0.0148	0.0055	0.0127	0.0021	0.0049
Period 5	0.0011	0.0080	0.0040	0.0138	0.0001	0.0106	-0.0010	0.0051
Period 6	-0.0041	0.0094	-0.0027	0.0159	-0.0045	0.0111	-0.0003	0.0045
Period 7	-0.0043	0.0163	-0.0127	0.0219	-0.0031	0.0194	0.0012	0.0047
Period 8	0.0016	0.0125	0.0027	0.0224	0.0019	0.0117	0.0003	0.0058
Period 9	-0.0032	0.0173	-0.0082	0.0201	-0.0041	0.0198	-0.0010	0.0049
Period 10	-0.0076	0.0440	-0.0108	0.0424	-0.0095	0.0455	-0.0019	0.0114
<i>Sub-period 2</i>								
Period 1	-0.0066	0.0387	-0.0064	0.0347	-0.0074	0.0441	-0.0009	0.0108
Period 2	0.0005	0.0340	-0.0019	0.0132	-0.0003	0.0345	-0.0008	0.0098
Period 3	0.0006	0.0131	-0.0125	0.0716	-0.0030	0.0150	-0.0036	0.0060
Period 4	-0.0024	0.0204	-0.0136	0.0283	-0.0027	0.0230	-0.0004	0.0055
Period 5	-0.0093	0.0251	-0.0109	0.0364	-0.0098	0.0259	-0.0005	0.0029
Period 6	0.0060	0.0197	0.0159	0.0338	0.0072	0.0193	0.0012	0.0031
Period 7	0.0051	0.0160	0.0103	0.0324	0.0057	0.0167	0.0006	0.0054
Period 7	0.0013	0.0149	0.0047	0.0320	0.0003	0.0160	-0.0010	0.0029
Period 8	-0.0029	0.0158	-0.0034	0.0222	-0.0028	0.0170	0.0000	0.0023
Period 9	0.0059	0.0118	0.0082	0.0243	0.0059	0.0121	0.0000	0.0021
Period 10	-0.0066	0.0387	-0.0064	0.0347	-0.0074	0.0441	-0.0009	0.0108

Apart from the values of standard deviations for Romanian market returns compared to the US market or euro-zone returns, we were interested, as mentioned in Section 4, in investigating the effective contribution that the volatility of the RON exchange rate fluctuations has on the Romanian returns denominated in US dollars and in euro, respectively. As indicated by equation (8), the proportion of Romanian market volatility explained by changes in the RON exchange rate depends not only on the volatility in the foreign exchange market, but also on the covariance between the Romanian market returns and exchange rate changes. Ultimately, the contribution of exchange rate volatility to the risk of a foreign investor in the Romanian market depends on the ratio between the covariance and the variance of exchange rate changes: when the covariance is negative and higher in value than the variance of the exchange rate changes, the foreign exchange risk has a negative contribution to the overall risk, thereby reducing the risk in US dollars or euro from an investment in Romania. Table 7 shows the values for the parameter λ for the US dollar based and the euro based investor for the overall period and for each of the ten periods in the two-subperiods. As we may observe, λ takes negative cases for all periods, with very few exceptions: in Period 9 in the first sub-period, in Periods 1, 2, 4 and 10 for the US dollar analysis and in Periods 1, 2 and 10 for the euro analysis in the second sub-period.

Graphically, Figure 8 shows the values for the λ parameter fluctuating around zero for all sub-periods, with the significant negative value in both US dollars and euro terms in Period 3 in the second sub-periods. Over both sub-periods and the entire periods, the exchange rate risk did not add to the risk of the domestic investment but, due to high negative values of the covariance, it decreased the risk that a US dollar or a euro based investor was exposed to from an investment in the Romanian market.

Table 7 *Lambda (λ) parameter values*

	λ – USD analysis	λ – EUR analysis		λ – USD analysis	λ – EUR analysis
<i>Overall period</i>	-0.3238	-0.7945			
<i>Sub-period 1</i>	-0.2838	-0.2258	<i>Sub-period 2</i>	-0.3420	-1.2481
Period 1	-0.9261	-0.2285	Period 1	0.5881	0.3799
Period 2	-1.0349	-0.3093	Period 2	0.9231	0.8530
Period 3	-0.7791	-0.6966	Period 3	-7.9979	-21.9442
Period 4	-0.8359	-0.3450	Period 4	0.2835	-0.5136
Period 5	-0.5036	-0.6877	Period 5	-0.5084	-0.9768
Period 6	-1.2014	-1.0650	Period 6	-0.2277	-2.0723
Period 7	-2.4193	-0.2756	Period 7	-1.4096	-2.7701
Period 7	-1.7922	-2.6534	Period 7	-2.5895	-3.0271
Period 8	-0.1781	-0.0322	Period 8	-0.9153	-0.6996
Period 9	0.2742	0.1310	Period 9	-1.8427	-3.0577
Period 10	-0.9261	-0.2285	Period 10	0.5881	0.3799

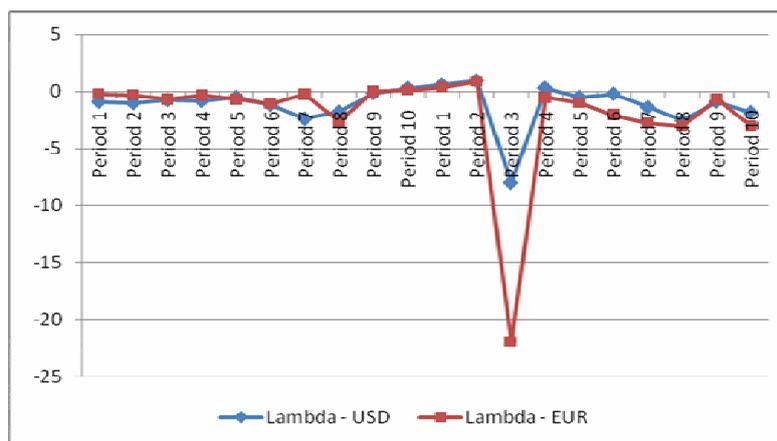


Figure 8 *Lambda values – USD versus EUR comparison*

As an international investor is interested in diversification of his asset holdings, it is relevant to analyze the contribution of exchange rate risk to the correlation between the Romanian market and the home market of the investor. The parameter φ , defined in Equation (10) shows the contribution of exchange rate volatility to the correlation between the two markets; the computation of this parameter for our analysis is presented in Table-10. As indicated by Equation (10), the parameter value depends on the correlation between the Romanian market returns with the change in the exchange rate of the RON against the US dollar and the euro, and the ratio between the exchange rate volatility and the volatility of the Romanian market return denominated in US dollars and euro. As in the case of λ , we observe the evolution of φ for the entire period, the two sub-periods and each of the ten intervals in the sub-periods.

Table 8 shows the computations of the correlations between the exchange rates of the RON against the US dollar and euro and the MSCI indices for the home countries of investors (MSCI US and MSCI EMU), on one hand, and the correlations between the MSCI US and MSCI EMU and the MSCI Romania index denominated in US dollars and euro, respectively. The computations are performed for the overall period, for the two sub-periods and for ten periods within each of the two sub-periods. For both US dollar and the euro, there is striking difference between the correlations involving the exchange rates and the ones involving only the stock market indices. A couple of observations are noteworthy. First, the correlations in columns (1) and (4) are lower and much lower than the correlations in columns (2) and (5): from the US dollar perspective, the correlation between the RON-USD exchange rate and MSCI US is 0.0598 for the overall period, but it is negative for the first sub-period (-0.0547) and positive for the second sub-period (0.1182), while the correlation between MSCI US and MSCI Romania is 0.9007 for the overall period and is also very high for the two sub-periods (0.8912 for the first one and 0.9058 for the second one); from the euro perspective, the correlations between the RON-EUR exchange rate and MSCI EUR is 0.1413 for the overall

period, and is also positive for the two sub-periods (0.1214 and 0.1654, respectively), but the correlations between stock market indices are close to 1: 0.9631 for the overall period and 0.9525 for the first sub-period and 0.9713 for the second sub-period. Second, all correlations vary in time, regardless of the sub-period and the currencies involved: from the US dollar perspective, the correlations involving the exchange rate vary between -0.4814 and 0.3827 and the ones involving stock market indices vary between 0.6077 and 0.9585; from the euro perspective, correlations vary between -0.3628 and 0.5730 when the exchange rate is involved, and between 0.8896 and 0.9878 for stock market indices. Third, when we contrast the correlations between the RON-USD exchange rate and MSCI US (column (1)), on one hand, and the correlations between the RON-EUR exchange rate and MSCI EMU (columns (2)), on the other hand, we find a lower number of negative correlations in column (4) and, on average, higher values for these correlations, which is in indicator of the closer link between the Romanian economy and the euro-zone economy.

Table 8 *Stock market and exchange rate correlations and phi*

	Correlations – USD investor			Correlations – EUR investor		
	USDRON to MSCI RO - MSCI US - USD to MSCI Phi (φ_{USD}) USD	US - USD	MSCI Phi (φ_{USD})	EURRON to MSCI RO - MSCI EMU - EUR to MSCI Phi (φ_{EUR}) EUR	EMU - EUR	MSCI Phi (φ_{EUR})
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Overall period</i>	0.0598	0.9007	0.0289	0.1413	0.9631	0.0400
<i>Sub-period 1</i>	-0.0547	0.8912	-0.0279	0.1214	0.9525	0.0392
Period 1	-0.1119	0.8690	-0.0653	-0.1503	0.9000	-0.0774
Period 2	0.3565	0.8972	0.1878	0.1112	0.9598	0.0327
Period 3	0.1292	0.9255	0.0533	0.5489	0.9563	0.2009
Period 4	-0.4814	0.8575	-0.3295	-0.2851	0.9305	-0.1171
Period 5	-0.0321	0.6696	-0.0356	0.2934	0.8896	0.1576
Period 6	-0.3466	0.8455	-0.2334	0.1503	0.9139	0.0675
Period 7	-0.4077	0.9234	-0.1855	0.5730	0.9801	0.1415
Period 8	-0.4237	0.7174	-0.4543	-0.3628	0.8896	-0.1999
Period 9	-0.2302	0.7936	-0.1813	0.4143	0.9748	0.1041
Period 10	-0.0037	0.9352	-0.0014	0.0065	0.9678	0.0017
<i>Sub-period 2</i>	0.1182	0.9058	0.0557	0.1654	0.9713	0.0410
Period 1	0.1792	0.9169	0.0793	0.3903	0.9741	0.0985
Period 2	-0.0066	0.9526	-0.0021	-0.0961	0.9594	-0.0284
Period 3	-0.2130	0.6077	-0.2849	0.0990	0.9175	0.0431
Period 4	0.4643	0.9129	0.2345	0.3809	0.9749	0.0940
Period 5	0.0418	0.9585	0.0124	0.2099	0.9942	0.0233
Period 6	0.2878	0.9233	0.1250	-0.2116	0.9878	-0.0341
Period 7	-0.0478	0.8577	-0.0287	-0.0357	0.9453	-0.0123
Period 8	-0.2387	0.8703	-0.1391	0.2823	0.9848	0.0519
Period 9	0.0697	0.8338	0.0462	0.4636	0.9927	0.0637
Period 10	0.3827	0.9283	0.1659	0.0590	0.9853	0.0102

When we investigate the parameter φ (columns (3) and (6)), we observe its low values, close to zero, for the overall period, the two sub-periods and the twenty smaller periods. This suggests that the contribution of exchange rate risk to the risk of an international investor diversified in his home market and the Romanian market is small, in some periods even negative – in these periods, exchange rate risk, instead of increasing the overall risk of the portfolio, it diminishes it through the

impact of the negative correlation between the exchange rates and the investor's home index. Still, as ϕ values are variable in time, the contribution of exchange rate risk to the overall portfolio has to be strictly monitored, since past values are not a reliable proxy for its future values. When comparing the two sub-periods, no significant differences emerge between our results, which suggests that in times of crisis the impact of exchange rate risk in an international portfolio is not altered compared to "normal" times: this is the effect of the change in correlations between the exchange rate and the stock market indices, along with the changes in the correlations between stock market indices.

CONCLUSIONS

Our paper investigates the impact of changes in the Romanian currency – leu – exchange rates against the US dollar and the euro on an investment in the Romanian stock market from the perspective of a US dollar and euro based investor. Our analysis is directed towards identifying the significance of exchange rate volatility on the total risk of a Romanian investment from the point of view of two potential investors having the US dollar and the euro as reference currencies. At the same time, we aim at discovering the contribution that currency risk makes to the correlation between the Romanian stock market returns, on one hand, and US market and European markets, on the other hand. We use daily data on stock indices and exchange rates and employ three stock market indices, to capture the performance of the Romanian market, the US market and the European market: MSCI US, MSCI EMU and MSCI Romania. The analysis covers the period starting on December 26, 2007 and ending on August 4, 2009. The period is split in two equal parts around the date of October 15, 2008, considered the day when the current financial crisis intensified. The day was chosen as it recorded the largest daily drop in the value of the MSCI US index since 1999. The analysis on these two sub-periods allows us to observe into more detail whether in times of financial instability the importance of currency risk for an international investor changes as compared to more stable periods. Each of the two sub-periods is again split in ten equal intervals of 20 observations, aiming at studying the time-varying attributes of stock market returns and risks, currency volatility and correlations.

Our results indicate that during more turbulent times, as the ones recorded in the second sub-period, investors were better off if invested in their home markets, as compared to the Romanian market, when they are also hit by changes in the exchange rates: the mean returns of home indices are higher than the ones provided by an investment in MSCI Romania, while the standard deviations of these returns are smaller.

The contribution of exchange rate volatility to the risk of a foreign investor in the Romanian market depends on the ratio between the covariance and the variance

of exchange rate changes: when the covariance is negative and higher in value than the variance of the exchange rate changes, the foreign exchange risk has a negative contribution to the overall risk, thereby reducing the risk in US dollars or euro from an investment in Romania. We find that over both sub-periods and the entire period, the exchange rate risk did not add to the risk of the domestic investment but, due to high negative values of the covariance, it decreased the risk that a US dollar or a euro based investor was exposed to from an investment in the Romanian market.

As an international investor is interested in diversification of his asset holdings, it is relevant to analyze the contribution of exchange rate risk to the correlation between the Romanian market and the home market of the investor. We find that the contribution of exchange rate risk to the risk of an international investor diversified in his home market and the Romanian market is small, in some periods even negative – in these periods, exchange rate risk, instead of increasing the overall risk of the portfolio, it diminishes it through the impact of the negative correlation between the exchange rates and the investor's home index. Still, as ϕ values are variable in time, the contribution of exchange rate risk to the overall portfolio has to be strictly monitored, since past values are not a reliable proxy for its future values. When comparing the two sub-periods, no significant differences emerge between our results, which suggests that in times of crisis the impact of exchange rate risk in an international portfolio is not altered compared to “normal” times: this is the effect of the change in correlations between the exchange rate and the stock market indices, along with the changes in the correlations between stock market indices.

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TWO FALLACIES IN APPROCHING THE CURRENT CRISIS

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***Abstract:** Present study aims to reveal a few of the main perceptions and assumptions concerning economic activity, with implications in the nowadays' crisis.*

The most important current anti-crisis views on causes of the crisis are synthesized and critically reviewed. Methodologically, their interpretation is made by the effects in practice, alleging a wide interdisciplinary approach, consistent with the requirements of the European concept of knowledge society. Thus, ideas are brought in the economic analysis in a heterodox approach, trying to go beyond certain standard economic routines and into modelling. The model comes from an approach on the material-immaterial difference and has an answer to the dilemma consumption vs. economizing.

There result prerequisites for economic analysis, as well as conclusions in a pro-active approach of the matter, which are generally applicable to the crisis management at macroeconomic level, but with implications at the level of individual economic agent, too.

***Keywords:** economic crises, sustainable development, immaterial economy, productivity*

***JEL Classification:** E20, O14, O49, Q01*

Two main fallacies have to be coped with, as trying to understand present day's crisis and cope with its effects or, generally speaking, act towards solutions to crisis generated troubles.

1. MATERIALIST FALLACY: CLASSICAL, OR MARXIST, I.E.

MATERIALISM-BOUND

Two approaches are there, based on sectorial technological variance: "technical progress and innovation in industry lead to a continuous productivity

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growth in this economic sector”¹⁴. Common sense says that *production-proper*¹⁵ is a strong sure thing, as opposed to *services*, which being immaterial, are impalpable, uncertain: they “slip through our fingers” (when the approach is materialistic). Such approach implies a defining preconceived neat superiority of industry as against the other lucrative sectors (especially services) in terms of productivity expectable increase.

Some feel safer with “palpable” production than with the impalpable economy; understandably, much like earth takes reasoning to prove round: but direct perception of *face images* must give way to theory and abstract thoroughgoing knowledge, begot and settled from books of science, from the philosophy of things, not from the “school of life”. And, were we to take common sense for our guide, research should be done: we may not have the preconceived idea that services (like scientific research and education services, for example) would be less *productive* than industry, for the reason (though not *immediately* or instinctively perceptible) that they are the *producers* (generators) of the technical-scientific progress itself and ensure the staff for the accomplishment of the technical-scientific progress. Even if, as a rule, industry endorses the grater part of the profit that technical progress produces, nevertheless, research and education have the main **role**, *sine-qua-non* in generating general progress, despite of their less-than-in-industry income and gain. It is only in the accountancy books of *business* that the place of such services may be less important than the place industry takes; but not so in the genuine essential generation of things; accountancy and “barrel” statistical data do not immediately and obligatorily reveal the issue or the real causality of facts; and this place and role of services is less important than that of industry (of material production) also in the understanding of the economists who cannot go above the *businessmen’s* reasoning: their usual angle of approach, their (sometimes) level of analysis, their data source of data (i.e. the accountants’ books).¹⁶

A big service (done to society or to one singular client) **is none the less for being cheaper or pro bono**, i.e. without payment *on the market* in the benefit of the person who serves (being so only in the formal “technical” recording¹⁷). **On the contrary**, it is all the greater and *humane*. In this regard, see the concept we call

¹⁴ As an example, we quoted from Jaime Gil Aluja, *Enducing/Challenging Sustentable Social Progress*, *Timișoara Journal of Economics*, nr. 5, 2009.

¹⁵ See the theory we developed in Al. Jivan, *Economics of tertiary sector* (in Romanian), Sedona Eds., Timișoara, 1998, chapter 2.2., stating that material products are also services, by the agency of the market: performance targeting the customers (who want to benefit from it); their production, as an economic market activity, is essentially just for *servicing* a custom.

¹⁶ See our further remarks on the matter (chapter 4).

¹⁷ If it is cheap (sold on little money) or pro bono, it “produces” little income or little (or no) profit to the supplier, therefore it is considered (by the business man and by the economists) of little importance; even if it makes a *large* service to the customer!

*servicity*¹⁸: effective *intrinsic* productivity, generative of *general* and *absolute plusses*, is one thing; *computed* productivity, generating palpable *concrete plus* to the concerned individual, therefore *relatively* to a specific economic agent¹⁹, is a totally different thing; computation is here done by *businessman* method, i.e. based on market returns: which does not equate with what the producer **gives to and for** the environment (in terms of space and time), but what the producer **takes** (cashes in) and appropriates *from* his environment, on the account of others and of the future generations.

Modern intellect-intensive services bring a specific contribution to development; they allow diminishing compulsions and growth re-launch. Intellectual services should not be perceived only as job creation sectors: they create the main value-added, even if not wholly recorded in the accounts of their performers. Such activities have a fundamental role and essential functions for the whole of the economy: they allow it to get a superior level performance. But services need no more demonstration of utility beyond the *market test*²⁰. Moreover, we even emphasize that many services are much more useful than certain most material productions²¹, considering and respecting complex analysis and utility assessment criteria and taking into account multiple approaches: such as individualistic, societal, planetary...

Present study does not set it as its goal to examine in detail *the relation of the tertiary sector with technical progress*, here including the capacity of services to absorb technical progress and to increase productivity: we think such issue settled for quite a while, most pertinently proven by Jaques De Bandt, Jean Gadrey and such like scholars; here we may also quote our contributions, in *Modern Services – a Challenge for Economic Theory and Practice* (Jivan, Al. 1996 - in Romanian) and *Intellectual Tertiary Economics* (Jivan, Al., 1995 - in Romanian); so methodical, rigorous demonstrations exist, on hundred of pages, bringing detailed and unquestionable arguments, without the scope of present study. Such issue has been clarified despite of the preconceived idea of higher productivity of industry vs. services, that viscerally persists with the man in the street; it is disconcerting when

¹⁸ We firstly advanced this indicator at IXth *International Seminar on the Service Economy*, PROGRES (Programme of Research in the Economics of Services), A.S.E.C., Geneva, September 6/7, 1993, in “Services and Servicity”, *Services World Forum Bulletin*, no. 3-4 (Jully-December 1993), 16-24; the concept was later developed in other papers and books. If (standard) **productivity** couches the efficiency of the economic activity recorded by the producer *for himself*, **servicity** takes into account (in the large sense) *the whole* output, or just (in the broader sense) the efficiency for his *neighbourhood*.

¹⁹ With no concern with the rest of the world, with the ensemble.

²⁰ ... assessing that they are demanded, supplied and sold out.

²¹ *Infra*: see illustration cases mentioned further on, chapter 3.

such idea is manifested by indisputable scientists; not engineers, more materialistic by job description, but even economists²².

So let it be said and emphasized²³: it is not the services that generated the crisis. Approaching the issue from the point of view of *the economic effects of the service activities*, suppose (*i*) my elderly neighbour takes my children to school, as I put in long hours with my job; in return of which, on my way home I pay his telephone and electricity bills, buy his bread and, on Saturdays, I tutor his grandson in mathematics as I tutor my daughter; which means that we work and service customers, meeting their needs and consuming physical and intellectual energy and knowledge. In such cases, economy will work beneficially and at low costs.

Such servicing means a *win-win* situation: increased *needs satisfaction*, i.e. higher living standards, including the case when such reciprocal services are trade (onerous) services, generating money charges and instrumented by money. At aggregate economy scale, useful performances are mutual, mostly, one way or another, at least by the mediation of the generalized market (see here our synthesis on **the market as global servicing**, in our *Economics of tertiary sector* we mentioned in the beginning of present study).

Synthesizing the example from the field of services (*i*), on the short term run effects will be positive (as in orders fulfilled, employment...); as they will also be on the medium and long term run (satisfying people's needs without destruction to the natural environment and to third persons, and at minimal costs²⁴).

Suppose now, on the other hand (*ii*), that my neighbour manufactures anti-personal bombs and mines; also, suppose I manufacture and offer (supply) to my neighbour, peach marmalade: made not out of peaches and sugar, but out of jelly, synthetic aromas, artificial pigment and chemical preserver (in order to elude the economic law of *natural perishables*²⁵); so I manufacture for selling, in my money-

²² ... who, we think, should operate economic theory syntheses, as resulting from economic actual practice; but outrun the level of image and forms and go deeper in understanding causal and conditioning correlations and phenomenon generally speaking; thus, by abstracting, to understand reality in a widely comprehensive meaning. Unfortunately, most economists do not rise much above the level of computed figures they enter, which they read as they see the sun go round the Earth. The problem is in the lack of qualitative judgements and therefore they ignore the profound causality and the "external" effects of economic acts, under the trendy approach in economics that calls itself "positivist", supposed to only file facts, non-judgemental and dispassionate, or else fact would give way to ideology, they say; what we say is that *accounting* only is not enough for assessment; facts need interpretation, based on quality principles (moral here included). Else understanding is truncated and meaning is not truly revealed.

²³ This is one of the major ideas stated in this paper.

²⁴ I notice here how the intellectual resource is the only one not diminishing but growing by consumption. In this matter please see Al. Jivan, *Intellectual Tertiary Economics* (in Romanian), Mirton Eds., 1995

²⁵ ... one of the main determinants on the market *natural* mechanisms of price and of trade policy setting; which, however, infringement thereof is not perceived as *unnatural*, by the brave free-exchange champions. Moreover, they will take effects of such infringement as *natural* results of market inexorable mechanisms, while such infringement prevention regulations will be denounced as stops against *natural, free, market run*. Developments on the matter in Al. Jivan, "Particular and

benefit and in contempt for the health of the “beneficiary” of my work - especially for the beneficiary of the peach marmalade production²⁶. Then, as in the first exemplified case, both of us (as *individual* suppliers with clients) *will work* (having jobs and clients, i.e. a market/outlet) and probably some of our *individual* consumption lusts and needs will be satisfied. But *on an overall scale*, case (*ii*) is no longer similar to case (*i*), i.e. effects of case (*ii*) are different or even opposed comparatively to case (*i*): our health, both as individuals and as human species, will be impaired (in time, if not on the spot), because of the chemicals; as also will be impaired the health of the soil, of the plants and of the animals²⁷; and we will be maimed by explosions, we, our business partners and non-guilty third parties; or we might even develop terminal cancers or blow-up dead. Economy will work at high oxygen (and other raw materials) consumption; in generation of noxes in the environment (*E*'s are harmful for the life, much like gas and residues from explosives). The overall result will be consumption plus destruction, much of it for the long term run.

Briefly considering the example in the field of material production (*ii*), there will not be unemployment for the moment, like in the first case, while food and war orders will be fulfilled – so the market can book positive effects. However, over the medium and the long term run, effects will be negative. Such bad effects may be hidden, mitigated and even solved, in natural ways, i.e. absorbed by the environment based on the open economy principle²⁸. However they will add up in time; and burst out (periodically) when no longer contained.

Therefore, the causes of the negative effects of the economic activity over human society in general can belong with industry sector too²⁹: the comparison of the two intuitive illustrations of types of economic activities above procures ample evidence that it is completely fallacious to charge (accuse) services *in corpore* (as opposed to industry) with generating the crisis; at least not the scientific research services, education services, consultancy services, health services, informatics services, tele-communications services, transport services and not the social care services, the environment protection services, or the Mother Nature's preserving and

Ethical Questions in Liberalizing Eastern European Economies”, in *Proceedings of the 14th IGWT Symposium Focusing New Century: Commodity – Trade – Environment*, Volume II, Part II Trade, IGWT, CSCS, 25th-29th August 2004 August 2004, Beijing, China, China Agriculture Press, pp. 675-688

²⁶ As it massively happens in foods industry meant for huge “fodder” human consumption, the suppliers freely changing the tastes and aromas of stuff sold food, after primary sensors' impulses and using the voice of promotion.

²⁷ All the environment will be affected.

²⁸ Ricardo himself saw the solving of the stationary state (that he discovered to come for industrializing England in its), by international trade: i.e. on the account of its environment.

²⁹ Not *only* and not *mainly* with services.

repairing/recovery services³⁰; not the shoe-polishing services, the driving services, the courier services, the barber services and so on. The role of banking and financial services, of the services working only on the money field may be put under question: it is they who rule the economy and the world. Knowing that, their responsibilities are quite huge, nationwide and, mostly, worldwide. But it would be a mistake to blame all the services (as a whole), because of their immateriality. Analysis must be made for any specific case, in specified space/time conditions. To conclude with: thinking that services may have generated the crisis sounds way too '960s.

Yet “speaking again about «*industrial policy*»”³¹ seems to me quite acceptable, but subject to considering the points that we make at a variance: we do not mean a “come-back”³² of industry (because such a meaning sends to, and identifies with, original industrialism³³), but a *revision*! Such re-examination and correction of industrialism, that we *assert needed* as of now³⁴, should be *structural* and also in terms of *economic policy*. And it should touch on both industry and general material production on the one hand, plus services on the other, as immaterial economy.

So it is that, paradoxical as it may seem, we agree with Aluja’s statement, quoting: “highly industrialized countries have a much more favourable trade balance than countries where industrialization has been too soon given up on, regardless of the market size and the sectorial specialization degree”³⁵. We are at variance with him as, reading the statement, we differently connote the *industrialization* issue³⁶, not particularly pedalling on the trade balance question: we do not necessarily have in mind powerful (*industrialized*³⁷) countries, which have externalized their industries (starting with the most polluting, energy-intensive, raw-materials intensive and labour-intensive). The overall industry of those countries has been a long time back mature and able to generate new industry (*top*) branches; *apt to consistently sustain modern services development*; owning world top priorities, i.e. managing world economy, to the benefit of respective industrialized nations, starting with (and working by) the interest of the companies that went global (because their national markets became too mature).

We do not have in mind such developed countries; what we have in mind is countries *which have not yet* reached high development status (being even weakly

³⁰ ... actually only snippets of *mother nature* are surviving, like “nooks” and oases, because all the environment was invaded by the man, with his industrialization.

³¹ J.G. Aluja, *idem*.

³² ... as says same author, implying (the suggestion is blatant) *industry* rather than *services*.

³³ ... which would be more, and worse, than a simple return in the past.

³⁴ See also *infra* chapter 5 (conclusions).

³⁵ J. G. Aluja, *idem*.

³⁶ Here the argument might build up in Manoilescu’s terms, beyond scope of present study.

³⁷ ... i.e. *already* industrialized.

developed): i.e. post 1989 Romania, that *literally gave up all industrialization*, even regressing, close to giving up *industry* altogether, as an economic sector, with terrible effects on the long run term, not yet clearly³⁸ perceived, actually seen as sluggish post-December economic “remake”. The implications are far reaching, in terms of time and of social-economic connections, in the unprecedented decay of Romanian education system and of agriculture³⁹ and our *totally* imports-based economy, wholly dependent on foreign production of even most basic commodities. The effects are implicit and clearly visible in Romanian living, culture and civilization standards – not enough studied in the economics literature. Although circumstantial in title (i.e. pointing to these years world crisis), Marius Băcescu and Dionysius Fota’s original and brave⁴⁰ *The Economic Crisis in Romania’s 2009* (in Romanian)⁴¹ elaborates a pertinent analysis of the roots of the actual state of Romanian economy and minutely details the post-1989 Romania’s crisis.

2. DEMAND-BEFORE-SUPPLY FALLACY.

THIS MISTAKE MAY BE CALLED *KEYNESIAN*

A dilemma is strongly invoked at crises times: the dilemma **consumption** (Keynesian way out of the crisis) vs. **saving** and investment (the essential idea of the liberalist way out of the crisis, i.e. by the enterpriser’s efforts for research, renewing, for generating progress, including implementation thereof, new production capacities etc.); I emphasize that this second way currently also implies - and should imply more than that - *immaterial* investment, scientific research first and foremost, as in technical and economic, not just marketing research and market promotion⁴².

This dilemma is the translation, into the field of economic policies, of some different approaches concerning the role of demand and supply in the market. Most anti-crisis policies would stimulate economy by stimulating demand; and action taken is to such effect.⁴³ But common sense says that, rather than increase consumption (i.e. diminishing savings), much better economize. The bourgeois spirit, which existed before the consumption stage of the market economy, would actually economize, rather than consume: this was the condition for any enterprising, for any economic project, this was the thinking of Ricardo himself. Keynesian eulogy for consumption may look from this view angle, downright perverse! On the

³⁸ Such effects may go unnoticed; or only partially felt; or miss read; time will take its toll about it.

³⁹ Other causes might be mentioned here, outside the industry (and services) bound.

⁴⁰ ... dropping all juncture inhibitions related to the world economy dominant and heightening admiration for the authors’ non-conformism and for their constructive attitude that stays outside of certain politico-ideological actual trend.

⁴¹ Editura Universitară, București, 2009.

⁴² Such remark is emphasized as it is recurrent to present study.

⁴³ In the same manner of setting hierarchies between demand and supply, the exactly reverse approach exists too.

other hand, emphasising demand is beneficial to satisfying *real* needs, but creating an artificial demand, by paid digging-and-filling-up of holes (à la Keynes), or other such like palliative economic policies, is nonsense, even if generating short-term demand: it proves detrimental to the money system, to the economic system in general. Emphasising supply is not a bad thing in itself, i.e. just because it can find itself with no demand, in Keynesian terms (contradicting classical optimist Jean Baptiste Say). But a serious solution will not intemperately and unlimitedly pedal on emphasise supply: production can be destructive, if it produces bombs or dope, for instance⁴⁴. Thus, just like consumption, **investment** and *production* are also not all constructive and absolutely beneficial (over a large space and time span).

In the same manner, consumption in itself should not be blamed for irreversible transformations, if manifested in answering real needs (like bread, cheese and wine - that cannot be put under question). It is destructive, though, if purposefully meant for increased production (like dig up holes and fill them up, à la Keynes; or throw away things, instead of mending them; or change fashion, in order to drop old clothes; or artificially create and stimulate “needs”, like sex-change surgery, lifting, dope, even tobacco etc.): which fill a perverted market, with *artificial needs*, going contrary to *natural* market run.

Of the above, there results that, today, saving should be understood in the widest sense of the term, as we develop by modelling in chapter 3.

That is, *in order to beat the crisis **saving** is necessary (i)*: savings allow each person to cope with price rises and the hard times an economic crisis is. Also, at the level of the macroeconomic system, savings allow for the investment novel technology takes, or research, or advertising (here seen as immaterial investment); any renewal aimed at re-launching economic activity takes investment.

But the question issued is: **which investment?** Is it (A) stimulating consumption (like advertising is) and investment in consuming capacities? It may profit to a number of enterprisers, apt to thus produce more; yet such action will also result not just in *less planetary raw materials*; but also in new *destructions* thereof (see inbuilt decay, dispensability, the concept of produce a-new rather than mend... costs being recorded *per supplier*, not *overall, global*, for the whole systems and planet)⁴⁵.

Or, rather, is it (B) true investment, in the long run *globally constructive*, in the *recovery of the planet*, in *socially balancing*, and other organising goals, generally having anti-entropic effects?

On the other hand, at least in Keynesian approach – so much boasted at the present day crisis – in order for production to rebound, i.e. in order to beat the crisis, **more consumption** is requested (ii); to stimulate consumption for maintaining it at

⁴⁴ Like we exemplified at chapter 1.

⁴⁵ See also the example with manufacturing guns and dope.

high levels is seen as vital for all type enterprisers, as a prerequisite of any supply, increase thereof re-launching production.

Similarly, the question issued is: **which consumption?** Any consumption may have good effects for the short-term run, i.e. it will bring in a certain amount of income for a certain number of producers, thus favouring certain types of production. So the role of stimulating production raises the question: which production, then? Activities will be enhanced that (A) lead to or contributed to social economic welfare and to Mother Nature's redemption? Or is it production that (B) profits to some enterprisers, while side effects – if we rigorously consider the entire result - thereof make the investment all for the worse-off, thus generating consuming, rather than true investing? Dope and bomb demand can boost production, same as bread and butter. But in terms of preference, consumption should be favoured that does not prove detrimental, in the long run, for the overall environment.⁴⁶

So the issue is: **what effects** do the respective consumption and investments have? Not only the effects on the short-term run matters, but mainly the effects on the long run matter. Otherwise we deal in surface effects, i.e. sham actions, tools and methods involved.

Consumption should therefore be stimulated *only of non-destructive goods, environmental friendly and low-cost*. Such approach is, I say, valid for crisis-time and beyond. At all times, and acutely at crisis times, we should *save*; not for economizing sake, but *for (i) diminishing destructive costs⁴⁷*; and for *(ii) long-term run investment* (so: not for any type investment).

There ensues that investment, on the one hand, and consumption, on the other, are not antagonistic: we simply must to change the analysis criterion; as both consumption and investment – always correlated – may produce effects, and those effects are the matter to be studied in detail; their nature is the fundamental criterion: are they constructive or rather consuming?

3. SYNTHESIS BEFORE MODELLING

The trouble with the approaches that we discussed so far is the very analysis and perception criteria, based on which oppositions are assumed, regarding their auspicious/causing role (or not) in crisis.

The *material* should not be preached over the *immaterial*, and *immaterial* must not be blamed; going back to industrialization is not advisable where it is

⁴⁶ ... generally, for constructive goals. Unfortunately, in fact, the egoistic decisions of the enterprisers do not always for constructive goals. Therefore economic actors should have not only temporally limited selfish interests. Responsibilities can be only set societally: economic policies of co-interested actors and adequate regulation, for coercing them.

⁴⁷ Destructive costs are way out of line in our consumption society, even if accepted by the hedonistic speculative *homo-oeconomicus* spirit.

already done, and industry and palpable goods should not replace services; services must not be reduced to a minimum. Neither is industry, per se, to be blamed *in corpore*, declaring services preferable and denying industrialization (especially where industrialization is poor; deindustrialization effects in Romania could teach everybody and every developing country a lesson)⁴⁸.

Supply is not to be discouraged, encouraging demand (as in Keynes obsession with employment, employment meaning incomes, even if generating no value-added), with famous inflation effects (accepted, as per Philips' curve, or unaccepted, as per the neoliberal thought). Demand is not to be discouraged, either.

Analysis *criterion* should be a different one, i.e. how the crisis should be viewed. Potential complex effects, variously analyzed (at individual, local and global level), including target-attainment must be pointed out and should become the main criterion; which means considering, besides the entrepreneur's income, "external" effects, covering *all*⁴⁹ costs. Unfortunately, as already said, the analysis scientists make in economics often goes not deeper than the businessmen's approach and perception (the understanding being muck like that of the actors in economy). Scientists in other branches (philosophy, sociology, geography, politics etc.) can sometimes have wider horizon and, therefore, better understanding than economists.

Economists would be all the better for a broader horizon: besides financial effects (*economic, generally*), other (that are not) could be considered by economic analyses, especially active on the long term run *over economy itself* (e.g. education); research can only be cross-sciences, in knowledge economy: *scientific* research must be inter- and multi-disciplinary.

The criterion should be more rigorously set, based on target (desired), as well as unwanted (ignored by the individualist enterpriser) *ground* effects on the short, medium and long term run. Thus biased (i.e. considering the mix of implications), we can understand/clarify a number of aspects, facets and nuances that are affected by preconceived ideas, by routine and by ignorance.

For instance, like a first set of conclusions of our analysis, we can find that *immaterial economy* can be pure speculation, gaining on the poor sanctioned by the free market⁵⁰ and that credits may have no cover validation (such as, quite topical of

⁴⁸ It seems the countries in the „BRIC” group learned it.

⁴⁹ ... as far as we can see them coming and point them out. Industrial revolution started out by cutting trees, which was hardly, at that time, seen as destructive action; it was perceived as constructive, rather, producing new farming land plus useful raw material. The problem is that, even *today*, as we know lots better, woods still go at inexcusable rates and by technology able to effect disaster in no time, and some pretend that it is favourable action, because *the market* says so (the same way it was saying in 1600-1700) and because stopping this destruction would be "interventionist" (therefore *bad*). Such logic works – even if it is framed in the business logic - as (in understatement) impertinent, cynical and malefic, to we the people, to our children and to Mother Earth herself.

⁵⁰ Being under the coercion of the market (in this matter, please see our papers "Determinants and Compulsions in Setting Priorities at Macroeconomic and Microeconomic Level" and "Correlations of Demand Marginals to Subsistence", the Volume of International Symposium *Economics And*

late, in the context of global financial crisis). The conclusion is that part of the services can be crisis-encouraging. Such statement will not hold true for services *in general*, but for only *specific services*, which are apt to generate inflation; e.g. such services that do not have constructive, lasting *general* results⁵¹. Some of them can be positive on the short term run, i.e. for some individuals, not for all the people, not for the most of the saviours, i.e. not for those who grant, by economizing, the banking funds over which (private) banks are supposed to have the expertise to manager. But such economizers are now, during the crisis, also in sufferance.

Consequently services can generate crises: *not because immaterial*; but just if they are destructive or merely speculative, i.e. non-creative, just transferring assets from certain entities in the advantage of other entities; or exploiting, i.e. absorbing alien income, for the short-term run benefit of a few, and detrimental for their environment.

Concerning the *material economy*, we may as well find out that some material products are in fact gain at the expense of other individuals, or of Mother Nature: there do exist immaterial speculative activities, but also, there are industries, of the most material nature, which are destroying rather than constructive, equally destructive on the medium and long term run, i.e. when activity oriented in a consuming way – see rankings in the economic model analysis at chapter 4) The fact that they are material does in no way grant them a *merely* advantageous nature (an “anti-crisis” character, in the meaning of present study).

Another set of conclusions concerns the fact that we can similarly prove consumption and supply able to generate crises (please see chapter 2; we do not further detail that issue).

Economic activities do not generate crises depending on whether they are material or immaterial; nor depending on some assumed priority in some far-fetched hierarchy between demand and supply; but depending of their aims, of the manner of accomplishing goals and, therefore, of overall complex effects thereof (i.e. actual complex and general effects)⁵².

So the criterion is the *constructive vs. non-constructive* nature of the concerned activity: it can be more or less investing, it can be more or less consuming - or even destructive.

Management of Transformation, Timișoara, Romania, May 11, 2002, University of the West, Timișoara, Faculty of Economic Sciences, pp. 539-554).

⁵¹ ... the general complex resulting from the effects of enterpriser’s economic action (for self and “external”, for others, for society, for the planet); for the moment, on the short-term run, on the medium, long and very long.

⁵² Effects and implications on the whole, and not truncated, should be considered, even if usually just some parts, shares or sides of such effects are seen, depending of convenience, conventions or self interest.

4. ECONOMIC ACTION IN A NEW MODEL

There results from the first four chapters that, in the field economic activity and in the usual economic analysis as well, we are in the presence of the *narrow scope analysis fallacy*: targeting the *self-benefit here-and-now*, regardless of what may befall to *others elsewhere*, maybe in the future. In the logic of open economies, the main stay is in the environment of the individual person or entity. The reasoning underlying this fallacy is that the national, world-wide, planetary ensemble will somehow, some day take care of the side effects⁵³; like you open the window to let the cigarettes smoke out, on the logic (still valid⁵⁴) that Mother Nature will annihilate noxes, produce oxygen also etc.: basically (conceptually) **presuming alien effort**, or rather alien take-over of environmental costs. If the invisible hand is also presumed to be around (*naturally* acting-in for general welfare), no worry and no care (i.e. no responsibility) - except for *self, here and now* interests - troubles our sleep.

A synthesis based on the logic of the opposition between constructive (investing) and destructive (consuming) nature of our activity (production, consumption and investment included) in their complex correlation will result into a revealing model.

This is why *public investment* looks like a way out of a crisis: common sense, instinct, but logic too, tell us that public investment stand a *better chance*⁵⁵ to prove *investing* rather than *consuming*, as, unfortunately, is *private investment*: which is, by its very nature, run on the principle of large quick short term profit⁵⁶. Each economic entity targets the gain, and not necessarily meeting needs or solving problems of society, of Mather Nature or of the global future: such aims are taken into account if and only if they are perceived like bringing private profit; but any other ways by which some appropriation can be realized are considered.

In the traditional (classical) economic model, technical progress tends to be distinctly shown versus *labour* and *capital* factors, or to be included in *capital*. Profit and interest are usually seen as varying with capital amount, economic growth is generated by material investment, which is about quantitative growth of tools, machines, money and other forms of capital employment for production which generates quantitative growth of production. But we must remember that the economic growth can be generated not just by such economic activity spreading, but

⁵³ Generated “external” problems.

⁵⁴ There is no telling for how long: you may wish to get your cigarette smoke out of the room, yet get down with the noxes from traffic, from garbage stink, from some rubber factory (may be one recently relocated from a developed country to save labour costs and environment taxes).

⁵⁵ Fraud cases exempted, also embezzlement, corruption in favour of certain *private* individuals or interest groups; where the same behaviour applies: destructive, consuming, exploiting, consistent with the relaxed, careless, indolent, and irresponsible; approach like under an “open” system.

⁵⁶ ... *almost* immediately. Of course, we have to take into account the main amendments made by neo-liberalism to this approach.

better by growing returns. We emphasize that, despite of the standard approach, productivity and the quality of being lucrative are given by innovation, information, knowledge, science, brains, including the results of human capital formation and education. Therefore, growth is varying with inter-relational growth and with *I*-factor.

Under the circumstances of a knowledge based economy, a more adequate presentation should take into account that labour and capital as well, have a *qualitative* component part, besides the quantitative one. Thus, two economic factors, differing from the orthodox ones, could be outlines, in a manner proper for the *XXIst* century⁵⁷:

- the *material* factor, represented by the material component parts of capital and the pure energetic, physical aspects of labour;
- the *intellectual* factor (information, innovation, invention, knowledge, science, enterprising spirit, know-how).

We call “factor *I*” the above most important immaterial component, part of the economic life of mankind: it is about intellect, idea, initiative, information, innovation etc. It means much more than the sum of human capital, data-banks, scientific and spiritual immaterial heritage of mankind and research as a whole. The “*I*” resource tends not only to continuously complete and enlarge the potential of the usual material resources $M(K, L)$, but also to reduce the quantities of such resources, up to partial substitution: more quality often means less quantity.

Qualitative growth itself – as shown in our further approach on the issue - can happen not only by material investment, like in traditional models (i.e. by extending activity), but merely by growing effects (production, profit etc.) thanks to productivity gains given by determinant factor *I*⁵⁸. Productivity growth is usually seen as a function of factor *K* (capital), but in fact it depends on novelty, knowledge etc. and, in a long run, mostly on true and creative innovations (factor *I*). We must add that, even if they produce effects (un-expectantly large, at times), the surface innovations (connected only with juncture, fashion and such like) act only over the short run and maybe reversible: they are not genuinely constructing, but rather consuming.

⁵⁷ Here we use part of our later research in the matter. Parts of it or connected to it are also developed in other papers and books of ours, after specializing in service economy. Please see in this matter mainly our book *Economics of the Intellectual Tertiary* (in Romanian), Eds. Mirton, Timișoara, 1995 and „Performance in a different view: an indicator of ethical performance”, in the volume **4-ème Colloque sur le Gouvernement d’entreprise: Performance et Problemes d’Etique**, Faculté Warocqué, Centre de Recherche Warocqué, HEC Montréal, Chaire de Gouvernance et Juricomptabilité, Mons, Belgique, 9-10 mai 2005.

⁵⁸ Al. Jivan, “Aspects of Modelling Productivity and Knowledge Based Growth in the European Extended Society”, paper in the proceedings of the *International Conference Economic Growth and E.U. Extension Process*, Bucharest, May 16-17 2008, The Academy of Economic Sciences Bucharest, Faculty of Cybernetics, Statistics and Economic Informatics.

The European concept of *knowledge society* includes the care for the social problem, for the planetary environment and such like, among which moral-institutional aspects are also important. Knowledge society implies an opened minded view and an interdisciplinary vision, which are superior to the narrow economic approach. Economic growth should pass to a superior structure and manner of business: by superior constructive-investing criteria and not purely exploiting-consuming at all levels (individual, organisational, national).

In the light of the previous remarks, the total growth (see the theoretically principle form in the relation no. 1) should be understood discriminatively as *quantitative*, mainly consuming (relation no. 2) and *qualitative*, mainly investing (relation no. 3) *growth*:

$$G_T = \frac{Inv}{\Delta U_t} \cdot \frac{\Delta U_t}{CU} \quad (1),$$

$$G_M = \frac{Inv_M}{\pi} \cdot \frac{\pi \cdot \Delta W}{M} \quad (2),$$

$$G_I = \frac{Inv_I}{S_\sigma} \cdot \frac{S_\sigma \cdot \Delta I}{I} \quad (3),$$

where, *Inv* means the total investment;
Inv_M – material investment;
Inv_I – qualitative investment;
 π – the profit or gain in income (recorded in the performer’s accountancy);
 $S\sigma$ – the influence (global effect) of servicity⁵⁹;
CU – the existing useful environment;
M – material resources (land, rough materials, tools, machines, money and other capital resources; labour and other kinds of energy employed);
I – intellectual resources;
 ΔU_t – the gain in utility.

Any productivity growth (Δw) can be induced if we have:

- (i) growth of *M*-resources, which brought for growing scale;
- (ii) amplifying *I*-resource which turned to good account in production.

This (productive) consumption of factor *I* requires to grow its “production” (developing intellectual services): qualitative growth (founded on *I*-resource) presupposes and generates *I* (the growth of *I*).

What results from the above economic model is that only novelty and innovation are the real plus of utility and surplus of values.

⁵⁹ See our concept of servicity, already invoked.

We consider scientific contributions, discovering new scientific ideas, restructuring and renovation (including the issue of new economic branches), achieving new qualities and performances to be the most important tool for development; "*I*" resource plays the decisive role.

The interaction in economy and in society is made mainly by information and knowledge exchange among the elements of the system and with the context of the system. This flux is vital for the good functioning, creating conditions for diminishing the uncertainty area and in the purpose of taking quality choices and decisions. Information got a ruling role. The economy is not limiting itself anymore to the immediate material needs of the individual. The vital requests being better accomplished, other needs (more subtle, more human, more intellectual and more spiritual than the previous ones) come out: superior needs get more importance that they had previously. Production and consume are replaced with "functioning" and with the creation of utility.

The elaborated information (*I* resource) should be found in all the sectors of the economy (including in the production of material substances and products) and it should be enough for covering all it takes for such activities. This resource is requested for realising and keeping a functional equilibrium of the economy, viz. a state in which economy is capable to accomplish as many functions as possible for itself and for the society in general (to have enough potentials). The scientific and technological supply must go a step further, outrunning the necessities of material sectors: it must meet the (present) needs of information and answer to and for the future. The intellectual contribution must award the renovation which anticipates and creates new needs - and, maybe, their answer. The growing of intellectual potential brings, by a multiplying response, the emerging of new branches, the restructuring and the development of the whole economy, the growing of the capabilities of all economic sectors – with synergic benefits.

In the long run, the intellectual investment is a part of the offer (supplies). Therefore, we may write:

$$Y = Y_M + Y_I, \quad (4)$$

where, Y_M are the income (returns) from material productive consumption, from activities concerning the material productivity and material consumption growth;
 Y_I - returns from the *pure* investment, from intellectual development (growth) and productive use of *I*-resource. By "pure" investment I mean *constructive*. We should not mean only *money-making*, because it can be destructive: see pollution-making, guns-making, dope-making etc.

We make distinction between (i) the immaterial investment that is the basis for the development of the economy and of the mankind in general – as in the case

of investment in scientific research (beginning with the fundamental one) and in formation (education and teaching) -, on the one hand, and (ii) the investment that contributes to growing the profits of a number of corporate bodies (as in the cases of redistributing markets by important expenditures in brand image), to stimulating consumption generally (commercial publicity and advertising, for instance) or, even to production stimulation; among these latter ones, there are also researches which target exclusively mercantile interests (most often on a short run): such researches are not interested in the long run needs of mankind – like saving ecological equilibriums and such like (ignoring such needs, as bringing no immediate mercantile profits for the actor in question; even if immense "immaterial" benefits are brought for humanity; they even encroach them upon). We note that on the same criterion the material investment could be structured; but in the case of the immaterial investments, the differences look like being more evident than in the case of the material ones.

The two separated attitudes are the *investing approach* of human existence (i) and the *consuming approach* of human existence (ii) – the future preparing, in the general interest on the long term, on one hand and, in opposition with it, the simple stimulation of consumption, in the private short run interest, on the other hand. Only the most elevated and educated human individuals and the highest developed (civilized) human societies can achieve the constructive behaviour, attitude and approach of their existence. The others remain at lower levels (consistent rather with mainly destructive acts).

These above mentioned categories of incomes (4) are used for new (material) consumptions and usual (material) activities, and also for superior activities:

$$Y_M + Y_I = C + I_M + I, \quad (5)$$

- where, C are consumptions (in the concerned period);
 I_M - ordinary investment: expenses today for more consumption tomorrow or next year;
 I - pure investment (for intellectual services): expenses today for knowledge, namely in the purpose of better rationing next year (and much better after years), for creating the future. It may have far future returns; but it may have just immaterial gains, *human* filling and coming true: the immaterial investment and the gain from it cannot be quantitatively measured, but they maybe much more than money.

The intellect-intensive activities are the pure investment of a nation and of mankind: all material activities - including the Physiocrats' agriculture and all the primary sector, including the Smith's manufacturing industry and all the secondary sector - are only transforming and manipulating the existing matter and energy; and this matter and energy cannot be grown or increased (accordingly to the universal

principles of natural sciences); meanwhile high-level services are the very creators as they are actually creating something; they are generating *the New* (knowledge), new besides the already existing world: the most intellect-intensive services or those that give the ideas and the new ideas are those which conceive the better, the superior.

This investment-kind feature of the intellectual services means that the achievements in the future of such services (if they are enough responsible concerning the future, the mankind and the planet as well as the individuals and the present day) are bigger than the expenses required in the beginning:

$$Y_I \geq I \quad (6)$$

If we note the index 0 for the past, 1 for the present and 2 for the future, we can (more explicitly) rewrite formulas no. (6) and (5):

$$Y_{I_1} \geq I_0 \quad (6')$$

$$Y_{M_1} + Y_{I_1} = C_1 + I_{M_1} + I_1. \quad (5')$$

So we can see that from formulas nos. (5) and (6) it results that:

$$Y_M \leq C + I_M \quad (7)$$

The relation is *equal* (=) when the investment in the high-level intellectual activities is stagnant; the relation is *less* (<) in the normal case. This is increasing the feeling that *I* means “unproductive” expenses, which are affecting consumption and (material) investment (such was the appearance for a long time, and industrialist economists still have such an approach). But this correlation is valid *only over the short run term* because, by keeping *I* on the same level, *C* and *Y_M* will see more and more diminishing returns; therefore the relation no. (7) is generally speaking, *less* (<).

This (the *less* case) expresses the stagnation, the crises, the unemployment and poverty (for certain economic actors) etc.

The standard (usual) schemes concern just *Y_M* and its correlation with *C* and *I_M*. Growing *Y_M* is “given from out-side” (*I* standing for “unproductive” expenses, and technology coming by the simple *time passing*). By making no difference between *I* and *I_M*, the macroeconomic (Keynesian) equilibrium formula is hiding that a share of *Y* is, in fact, *Y_I*, and that is why incomes can equal expenses. This usual formula is hiding that *Y_M cannot cover all the material ordinary expenses* (consumption and material investment): the “technical-scientific revolution” is required as an “outsider” (external to the economy).

5. BRIEF CONCLUSIONS

In many cases, a plus cannot be accomplished *in the present*, without causing a minus *in the future*. Therefore, a superior outlook upon the final (compensated) results of the efforts and effects is necessary (a total, universal and humanistic one – not a selfish and a narrow-mercantile one). The “larger” efficiency we mean is not narrowed (limited) by some unique (economic) criteria, but concerns the best for the person, for the society, for the world, balanced between the present and the future. The gain in productivity and the growth of efficiency in general represent values as long as they are justified in a wider meaning than the one dictated by the producer’s interests only.

In our perceptions, economics should make the difference⁶⁰ between using and seizing the environment (benefiting on it, by your action and position) on one hand, and serving the environment (making it to benefit from your own work and behaviour) on the other hand. The first case is usually called “to produce” (productivity), pretending that just the *own* qualities, skills and abilities of the economic agent are valorised, in a strictly individual simplifying approach: the role of the external factors is ignored and the whole effect is ascribed (from the factorial and causative point of view) to the enterpriser who is appropriating, assimilating, who is profiting; and the whole effect is almost not at all⁶¹ ascribed to the factors got from the environment that are serving the benefiting agent, not to the actors and to the Mother Nature’s components, that are mainly or really and effectively causative or determinant. That is why a more-proper-than-the-standard way of considering productivity should be set up in the knowledge society. The perception and modelling of the productivity concept itself gains new angles of approach which are relevant for actual knowledge society. A new appreciation of effort could be useful, taking into consideration mainly two aspects: what any entrepreneur *takes from* the environment and what he *gives away* (besides productivity, considered as accomplishment *for him*). This dichotomy is the essence of the new approach we developed.

In opposition with the classical *productivity*, we advanced and promote the notion of *servicity*: a sort of social-economic efficiency. The qualitative aspects (constructive contribution) of agents’ activity (as from the own merit of the economic actor) were assumed as the basis for the economic model in the chapter 4.

An inter-national specialization in activities actually founded on knowledge (“brains”) could be translated to less dependence on Mother Nature’s wealth; this is the better chance for development and for protecting the planet against destruction.

⁶⁰ That is why we reproached economists they have the very same approach as the businessmen.

⁶¹ At least as “costs” for raw materials, for labour, for services etc. – all “paid” by the enterpriser. The relative character of prices also must be noticed.

When a well developed industry exists, services gain the main role in modern development; and when such an industry does not exist at the adequate level, the intellectual services, knowledge generally speaking, can bring their contribution to building industry and economy in general; but intellectual services can exist and function as well in the benefit of the nation that perform them: they could develop like top braches of the economy, in an adaptation to our days of Manoilescu's conceptions on competitiveness and international trade. Remaining (lasting) in the thinking schemes inherited from the industrial revolution period, means loosing from analysis important correlations that could allow outrunning certain limits and contradictions of the world economy. Therefore, the intellectual resource should not be squandered by selling as simply *labour* (factor *L*) or by migration in other countries; intellects should be kept and valorised in the benefit of the own country that generated them, as the most precious capital: such is the most important economic policy mainly for the undeveloped or developing countries.

To end with, we emphasize that little enough is said about the constructive (investing) economic activities, called *immaterial investment* (exception, maybe, for advertising⁶²), especially because they are immaterial: moreover, at crisis time, the *government cuts down mainly education and research funds*⁶³, as it currently happens in Romania, after 1989 (we still persist in a generalized economic crisis)⁶⁴. Such political choice is caused by the simplistic judgment based on the short-term run economic effects⁶⁵ (economizing on wages), instead of on the long-term run effects (generally societal, economic included). The outcome is generations spiralling down in terms of intellect, i.e. nation-wide, long-term non-quality, increased criminality, a.s.o.: a diminishing of average standard of social life, in terms of culture, civilization and humanity (i.e. diminishing human quality generally speaking). Such reckless behaviour can cause the decay of any nation, as a system.

⁶² ... expenditures which go up at crisis times.

⁶³ We will evoke here, as sore effects of the prolonged Romanian economy crisis (i.e. post-1989, not the crisis in the '80s, with different causes), the educational experiments our children underwent; their result: the decay is obvious in the comparatively (to 1989) lower standards our teaching and education touches these days.

⁶⁴ The excellent arguments of Fota & Băcescu should be reminded.

⁶⁵ We just incriminated this kind of approaches, even if – and especially because - they are usual.

STABILITY *VERSUS* INSTABILITY IN THE CONTEXT OF FINANCIAL GLOBALIZATION

Roxana HETEȘ *

***Abstract:** The financial environment has undergone a profound transformation in the context of globalization, financial flows of scale, diversification of financial instruments, increasing interdependence of national financial markets, being of critical importance. However, while global financial markets play a crucial role in the distribution of global capital, they do so in a way that can have profound negative implications. This paper tries to demonstrate that, globalization is capable of causing instability in the whole world, enabling broad crises, and, not least, increasing the danger of recession in the world, based on the manifestation of the global systemic risk. Knowing the risks and distortions that can affect the stability of the financial sector in the context of financial globalization, as well as their consequences, is especially important for the design of the regulation and surveillance process, plus for the formulation of crisis remedial and prevention actions.*

***Keywords:** financial globalization, crises, volatility, systemic risk*

***JEL classification:** G 15*

1. INTRODUCTION

Globalization is the modern term used for describing changes in societies and in the world economy that result from the highly increased international trade and cultural exchanges. In an economic context, we usually find the almost exclusive reference to the trade effects and trade liberalization or free trade. This is a main feature of the contemporary world economy, comprising all the sides of the economic life, as well as a process caused by the competition between the main poles of the international power.

At the basis of the globalization process lie a series of economic, technical, social and political factors that act simultaneously and interrelated at international, regional and national level. Cerna identifies the main factors that influence globalization, at the international level, in the new performing technologies, the

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expansion of modern industries, services' sector development, reducing or removing the national barriers for the international movement of goods, services, technology and capital. At a big extent, those factors also act at regional level, producing thus a tendency of concentration of the economic activity in three main regions: North America, Occidental Europe and Asia. At the national level, the factors identified above determine private sector development, expanding market mechanisms, opening national economies to the exterior, etc. [Cerna, 2008, 12].

The concept of financial globalization takes into consideration the creation of a global money market, a global financial market, a global financial system, whose emergence and development is based on the phenomenon of deregulation of national financial markets, the emergence and development of new financial instruments and expansion of banks and other international financial institutions. Globalization entails the amplification in the volume of financial capital flows as well as the increases of their intensity, processes that can be measured depending on the degree of openness of national financial markets⁶⁶, the level of financial gearing⁶⁷ and the degree of financial integration⁶⁸.

The main feature of globalization is financial deregulation, which consists in the gradual abolition of regulations on trade, in order to facilitate the international movement of capital. This trend began to outline the in the 80s, in countries like Latin America, U.S., Japan and Great Britain, and in the 90s in the continental Europe. Developed countries have waived the restrictions by which controlled entrances and exits of capital, along with strengthening their economies and transition to full convertibility of their currency [Heteş, 2009, 23]. In the context of globalization, capital flows have experienced a real explosion especially in the form of investments made across national borders, as portfolio investment and foreign direct investment [Heteş, 2009, 32].

In the case of emerging economies capital flows' liberalization makes these economies vulnerable to potentially unstable capital flows. Thus, it is possible that removing distortions caused by the movement of capital may not be beneficial because there are other economic distortions, which are compensated by the control of foreign financial transactions. For example, if in a country where there are branches that have in the past been protected from international competition, liberalization of capital cause decapitalization of those branches and the migration of

⁶⁶ Opening of national financial markets refers to the elimination of legal restrictions on international financial transactions.

⁶⁷ The level of financial gearing refers to the degree of involvement in national and global financial activity that can be measured by indicators such as the share of financial assets in foreign markets, the degree of involvement of financial institutions in foreign domestic financial markets, the share of domestic financial assets in foreign markets, the degree of involvement of national financial institutions on financial foreign markets, the national contribution to various global financial flows, etc.

capital to sectors where there is comparative advantage. Also, liberalization of capital in economies characterized by real wage rigidity leads to an allocation of excessive resources to the intensive capitalized sectors, by replacing labor with capital in manufacturing operations and, therefore reducing the effectiveness of resource allocation, which has a negative impact on the residents' income [Cerna, 2008, 4].

Another feature of globalization is the process of financial disintermediation. This refers to a direct appeal of the operators to financial markets, namely the use of a mechanism of direct funding to the detriment of indirect financing, in order to carry out investment transactions and lending operations. In other words, it represents the shift from one economic system in which financial intermediaries (i.e. mainly banks) represented the main funding circuit, to a market financing process, realized mainly by direct contact between fund holders and applicants. The process of disintermediation, as a feature of globalization, has brought out new risks regarding the exposure of banks to the non-financial sector, either directly or indirectly through problems in financial markets.

Globalization also covers the change in the structure of financial markets and financial intermediaries, since the opening involves national economies openness and the elimination of barriers which separate different compartments of the financial market. More specifically there is a decompartmentation process that establishes bridges between the money market, the capital market and insurance market [Heteş, 2009, 26-27].

In recent decades it could be observed, on the background of financial globalization, an intensification of the consolidation process in developed banking systems, and integration of national financial markets, that have resulted in the formation of companies much more complex than what existed before. The process of consolidation in the banking system may have the effect of increasing banks seen as being too big to fail. This development may cause concerns in countries where the concentration of the banking system is already very high, where the consolidation process is not accompanied by capital market development, which could provide alternative sources of funding. In this case there is a risk that large banks engage in riskier operations, in the hope of receiving support from international groups that they are part of.

At a global view, through the features mentioned above, there be highlighted a number of positive effects associated with the process of financial globalization, in terms of increased direct investment and establishment of strategic alliances between large companies, with beneficial effects on the level of production, development of strategies in accordance with global market trends (based on competitiveness and

⁶⁸ The term financial integration implies the existence of a convergence of prices and yields of packages of similar financial assets across different national financial markets.

sustainable development), better allocation of capital markets through the development of more efficient, more transparent and deeper securities' markets, through lower transaction costs and increased market liquidity, through greater diversification of financial systems and the existence of more opportunities for risk reduction, a more efficient allocation of funds from savers to investors and, not least, increasing international agreements in the interest of the world community [Miskin, 2005, 9].

On the other hand, along with these undeniably positive effects, the process of financial globalization has led to an increased likelihood of occurrence and development of large risks. Different categories of factors and vulnerabilities that can affect the performance of national financial systems emerge on the basis of the globalization process and, to the extent that they are not eliminated through appropriate corrective measures, the general trend is to grow and amplify, thus threatening the entire social and economic system.

2. VOLATILITY AND RISK FACTORS ASSOCIATE TO THE FINANCIAL GLOBALIZATION

The problem associated with the volatility of the global financial markets is addressed in different ways in literature. Some theories argue that the internationalization and liberalization of capital movements contribute to risk, hence the volatility, reduction. Given the fact that risk is measured by the attached risk premium, this would induce a reduction in interest rates (cost of capital) at the international level. The explanation is based on the possibility of portfolio diversification, because, by liberalization, equity bidders have access to a much larger number of investments, thus reducing the risk for each of the projects, as well as total volatility [Allen, 2005, 13].

Without denying these facts, the global financial market, also confirms a diametrically opposite position, according to which, the relaxation of controls and the liberalization of cross-border capital flows negatively affect financial activity, through increased risks and volatility. The main argument in this regard is the fact that each market is characterized by inherent distortions, which are amplified when it becomes global. Of these distortions, the most important relate to information asymmetry and to the characteristics of the operating environment, to the widespread use of derivatives and to the cross-border activity of institutional investors.

2.1 Information asymmetry

Increased volatility caused by information asymmetry may be explained by the fact that, in general, information in financial markets is not perfect and is not equally distributed among market participants. For example, in any credit contract,

the borrower has more information on the expected earnings from the investment project that to be funded, than the credit institution. Another problem concerns the legal and institutional environment in which the contract is signed, meaning that the cost will be even higher as this environment is weaker and more unstable [Heteş, 2009, 110].

Synthetically speaking, information asymmetry has two effects: adverse selection and moral hazard. Adverse selection can be defined as asymmetric information that exists before perfecting a transaction, when the riskier projects are the most active in searching for a loan [Mishkin, 1998, 22]. In other words, creditors, that have little information on the conditions of a given economy, will be tempted to provide funds to borrowers that pay the highest interest rates. If these higher interest rates are correlated with the project risk, there is a possibility that funds are given specifically to projects of low quality, exposed to an increased risk of failure. If you obtain a better return than the cost of the loan, everyone will be happy and it will be divided between debtor and creditor, but, in the opposite case, however, losses will be borne solely by the creditor. This situation can be described at best as a problem of moral hazard. Those seeking funds have too little incentives to choose high quality projects, because on the one hand, they will not suffer losses in case of failure, and on the other hand, it is normal to prefer projects that will bring higher earnings, despite the fact they are more risky.

Extrapolating these issues at international level, the problems become more extensive and complex. Information asymmetry is extended when the debtor and creditor countries are different, because the creditor has access to less information as compared to the situation when the two had acted on a local market. Similarly, there is also an increased cost of obtaining contractual information, the credit institution being put in the position of collecting information about legislation in different countries, which are not familiar, unlike the one in which it is currently operating in. Looking at things from this perspective, risk and volatility of financial operations is higher on global markets than on the domestic financial markets.

2.2 High volume of speculative operations

The high volume of speculative operations specific to the global financial market is another potentially volatile factor. Most speculative operations are performed on derivative financial instruments, which strengthen links between different segments of the market and various financial institutions in a manner difficult to identify or quantify⁶⁹. Moreover, low regulatory environment of the international market, increased the opportunities for speculation, jeopardizing the

⁶⁹ Even if the main purpose of the derivatives market is to reduce risks related to financial and commercial operations, use of such tools has reached, over time, a strong speculative character, which increases volatility, especially in terms of a broader information asymmetry.

stability of capital markets. Moreover, supervision of compliance with existing rules in this area is extremely difficult to achieve in the current conditions. In other words, we can say that a global financial system, where hundreds of billions of dollars can move simultaneously in response to the latest news and possibly only on the basis of physiological factors, is a system characterized by a reduced stability.

It is clear that speculative movements represent a harmful source, threatening the stability of financial markets. It is known, in this respect, George Soros' intervention in September 1992, who, speculating on a devaluation of the sterling pound, sold (on time) pounds worth of 10 billion dollars, contributing to a substantial fall in the pound and its withdrawal from the European Monetary System [Cohen, 2004, 15]. In this case it was also important the fact that George Soros drove a successful investment fund, with assets of over 110 billion dollars. Thus, the statement - "I expect that the most important currencies to decline" - made in „The Times” after it had already taken a position, speculating on the German mark, had a major contribution to the devaluation of the pound. This episode demonstrates that the mere statement of some influential people are more than enough to create instability in international interconnected financial markets. Another well known example, which shows potential source of instability generated by globalization is that of Barings Bank, when an agent of the subsidiary companies of Barrings Bank, in Singapore was able to speculate, in less than a month, 29 billion dollars on Japanese derivative markets, causing the bank a loss of 1.3 billion dollars, which resulted in the bank's bankruptcy⁷⁰ [Heteș, 2009, 111].

The gravity of the situation is also suggested by some studies, that consider that the governors of central banks around the world, in the case of a hypothetical agreement, could not mobilize in a day more than 14 billion dollars, insignificant amount compared to the hundreds of billions circulating every day in the forex market. As an example, a conjugated substantial effort, of the the FED and other 16 central banks, in a single day (24 June 1994), in order to halt the depreciation of U.S. dollar, through its concentrated buying, that has resulted in the performance of actually buying an amount of about 5 billion dollars, was barely noticed in the market [Hirst, 2002, 47].

2.3 Institutional globalization

Besides information asymmetry and speculative operations, the institutional globalization also has an important contribution to increased risk and volatility of global financial environment. At a first glance, the growing cross-border links at

⁷⁰ An old institution of over 233 years, Barings Bank suffered a loss of 1.3 billion dollars in February 1995 as a result of transactions carried out by its subsidiary in Singapore. The loss was greater than the mass of available capital plus reserves, the bank being forced to declare bankruptcy. Subsequently, it was taken over by ING Bank, for the symbolic sum of 1 pound and a commitment to substantially cover the debt.

institutional level induce some benefits in terms of stability, development and efficiency of the financial sector, in terms of lower volatility of revenue and value of assets, as a result of reduced exposure to originare market conditions, better risk management practices and the orrientation of capital to the best winning opportunities, higher profitability of foreign operations due to the use of more sophisticated techniques and products, a greater stability of credit availability, linked to the distance of the parent banks from the cycle of domestic credit in any particular country, increased access to deeper international markets, for funds' procurement, greater liquidity for investments and increased access to risk guarding tools.

Beyond these positive implications, there are, also, a number of issues that should not be ignored. Thus, parent institutions can develop in a manner in which they can waste capital or to lose focus on the home market, in terms of capital market expectations (if banking products and techniques are not transferred in an appropriate manner, or if the host markets or management strategies are not sufficiently adapted to the conditions there). On the other hand, risk management in a large financial group, operating in a large number of cultures and time zones, will inevitably face much more difficulties than if operating in the the structure of a single country, in spite continuous innovation in the field. Here is a case of ensuring a proper management of operational risk and market operations outside of the parent companies⁷¹. Regarding credit risk management, difficulties may occur in the case of limited or inconsistent information regarding the conduct of credit relations in the host country, thus reducing the effectiveness of measurement instruments and risk management system as a whole [Heteş, 2009, 112].

In this context, there remains open the question on positive reaction or not of the market to cross-border activity of financial institutions and on the way in which it leads to a decline in risk related to institutions as a group. As all banks and most of them extend their activity beyond national borders, they may become more vulnerable to large shocks and to the contagion effect. Thus, the large volume of transactions, the links established between major financial conglomerates, the relatively small number of international players that play a central role in key markets, increase the risk at both individual financial systems level and international level. A sound example is the process of European integration, which has not generated a positive, unambiguous effect on financial stability⁷².

Another important aspect concerns the prospects for financial stability in emerging countries, as host countries. Developments in the last period shows that

⁷¹ Fraud and management deficiencies may occur in domestic firms, but the control procedures and the application of penalties, are more difficult to implement in transnational structures. The cases of Barings bank and Allied Irish Bank best illustrate this situation.

⁷² For a selected group of major European financial institutions, it has been demonstrated that during 1990 and 2007 the risk has decreased, while the degree of sensitivity to real and financial shocks, both in banking and insurance has increased in most countries [Decressin, 2008, 32].

the presence of foreign banks on strong markets in developing countries has, generally, led to a greater robustness of their financial systems in the face of traditional banking crises. For example, most banks in the countries of Central and Eastern Europe are owned by large European banks with strong capital bases and a substantial presence in the region, the parent banks being able to ensure effective supervision of operations of subsidiaries abroad, as well as financial support if needed, which contributes to increased stability of the financial system as a whole [Kaufman, 2003, 12]. On the other hand, however, the scale at which the most transactions are carried out and the changing nature of foreign holdings in host countries, generates new challenges for authorities. Foreign banks have become major channels for transmitting different types of vulnerabilities, and therefore, the financial systems, characterized by a substantial foreign presence, even if less vulnerable to shocks occurring at the local level, prove to be more vulnerable to external shocks that seriously affecting the parent bank.

3. SYSTEMIC RISK AND GLOBALIZATION

Risk and high volatility of global financial markets, associated with the extrapolation of different categories of distortions (information asymmetry, speculative operations, the work of institutional investors), and hence the financial vulnerability creates a framework for the emergence and spread of global turmoil, their defining aspect relating to the overheating of problems of financial management, due to the complex process of globalization. In this context, even if for a long time the concept of systemic risk has been circulating only in the national context, gradually the need appeared for imposing a new concept, that of overall systemic risk.

The significance of the concept of systemic risk, seen in a general manner, is somehow ambiguous, in the literature this being explained in several ways. Kaufman identified systemic risk with a massive macroshock producing large adverse effects, almost simultaneously, at the level of a large part or even at the level of the whole economy or system. In this case, the term refers to systemic events that affect the entire banking system, financial, or economic system and, not only a single institution [Kaufman, 2003, 14]. Mishkin defines systemic risk as the probability of occurrence of a sudden and unexpected event, which negatively affects the information in the financial markets, making them unable to allocate funds to the most productive investment opportunities [Mishkin 1998, 11].

Defining systemic risk as the risk of a chain reaction of the fall in interconnected dominoes is consistent with the definition of the Federal Reserve System. In payment systems, systemic risk can occur when an institution participating in a system of large settlements, can not or does not wish to liquidate its net debtor position. If facing such a situation, the institution's creditors,

participants in the system, might not be able to liquidate their commitments themselves. Hence severe effects may reverberate on other participants from private networks and on non-financial institutions in general [Kaufman, 2003, 8]. The Bank for International Settlements defines systemic risk in a similar way, namely, the risk of not fulfilling commitments by a participant in the system to cause an payment incapacity of others, such a chain reaction leading to more general financial difficulties [BIS, 1994 21].

Reported to all these points of view presented in a synthetic manner, systemic risk presents a certain domino effect, so when a piece falls and knocks others down as well, thus causes a chain reaction which can be quite difficult to stop and costs quite high⁷³. This can best be highlighted in the banking system. Banks in a country tend to be interconnected through interbank deposits and loans. Bankruptcy of a bank may trigger a serious reaction in the chain, so that, in the absence of an adequate capital ratio, together with a high degree of indebtedness, increases the probability of insolvency as a cause of the insolvency of banks located "earlier" on the transmission chain and thus propagating to banks located "later" on this chain [Cohen, 2004, 15]. The speed of propagation of shocks to the financial sector, along with the probability that it affects both solvent companies, as well as insolvent ones, as well as the incapacity to protect against its destructive effects, makes it necessary for systemic risk to be treated with greater caution.

Regarding the concept of global systemic risk, it appears as an extreme manifestation of the global financial instability, a macroshock which affects the world economy as a whole. Globally, modern financial markets operate in such a way that they enable institutions to protect against specific risks, such as fluctuations in exchange rates or interest rates. However, they only transform and redistribute risk instead of eliminating or reducing it for the whole system. Moreover, cross-border financial flows and interconnection of national financial markets allow faster transmission of shock waves.

Consequences of a domino effect or generalized contagion can be disastrous to the extent that financial difficulties encountered by one or more institutions in a country can have major indirect effects on the rest of the global financial sector. The term "hot money" is relevant to what happens when there is a panic in the financial market. Portfolio investment, the most sensitive and at the same time, the the most liquid, can be withdrawn immediately and shifted to other areas deemed safer.

Currently, high risk, along with the potentially volatile nature of global financial markets and instant dissemination of information between the financial centers of the world, make the overall systemic risk a greater threat to international

⁷³ The Bank of England Governor's has described this effect as reverberating to the financial exposures by linking businesses like mountain climbers link each other when they escaladate a mountain, so if one falls on the rocks, also pulls the others down.

finance. No government alone can solve it and neither can it isolate its economy from this threat.

4. FINANCIAL CRISES AS FORM OF INSTABILITY

Financial instability describes a situation of price volatility of financial assets, a situation that may entail some costs. In the absence of appropriate remedial measures, it may even lead to bankruptcy of several financial institutions, infrastructure problems in the financial system and ultimately affect all financial markets, which, through the effect of contagion could spread worldwide, thus risking of destabilizing the global financial system and economy.

A financial crisis can be regarded as a severe form of instability, representing a situation where, after an episode of instability, the system does not return to the normal state, just by simple remedial measures. Thus, there are required more extensive and more severe measures, which will restore discipline in the financial markets, sometimes accompanied by the restructuring of the system [Laeven, 2008, 3].

The term financial crisis is applied to a variety of situations in which many financial institutions or financial assets suddenly lose a large part of their value. Depending on how defined, there are various ways in which financial crises can be classified. Other cases bearing the name of the financial crisis include crashes of the stock exchanges and the emergence of new types of speculative bubbles, as well as phenomena like currency or debt crisis [Allen, 2005, 4].

In the light of their effects, financial crises have led affected economies into deep recessions and caused sudden inversions in the current account. Some of these phenomena were marked by contagion, rapidly propagating to countries that had not experienced vulnerabilities in the financial sector. Among the many causes of financial crisis we can find a combination of unsustainable macroeconomic policies, credit expansion, massive inputs of capital and fragile balance sheet, combined with a variety of economic and political constraints [Reinhart, 2008, 7].

In time various parts of the world were at one time affected by the crisis. Figure 9 presents the number of crisis, according to their type from 1880 to 1913, and Figure 10 compares the frequency of crises in two periods: 1880-1913 and 1980-2004.



Figure 9 *The incidence of different types of crises in the period 1880 – 1915*
 Source: [Bordo,2006,8]

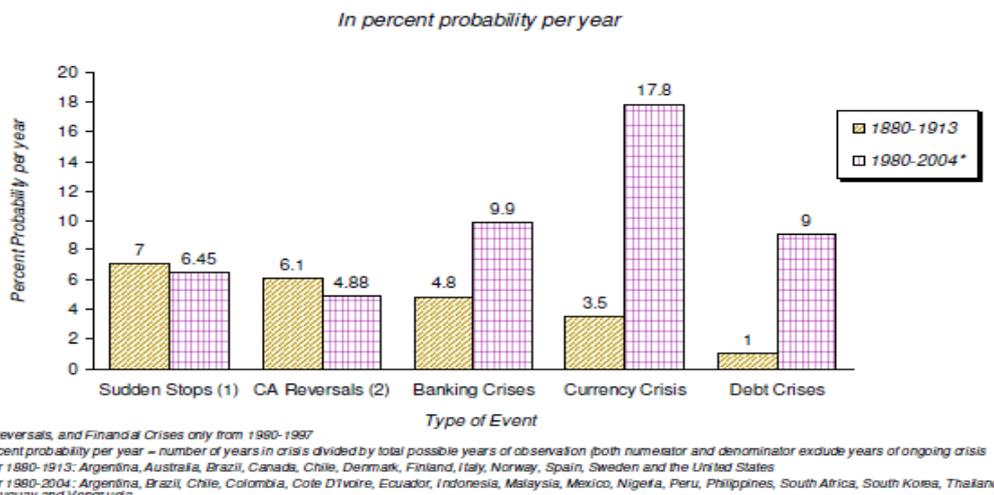


Figure 10 *Crisis frequency 1880-2004*
 Source: [Bordo,2006, 9]

Thus, one can see a reversal in the probability of occurrence of different types of financial crises: if during the 1880-1913 crisis of sudden stops (sudden and drastic decline of capital flows) and CA Reversals (adjusted current account) presented a greater probability of occurrence, in the period 1980-2004 the situation was reversed, banking crises, monetary and debt being more common [Freund, 2000, 21].

Since the 90s, the simultaneous occurrence of a large number of banking, currency and capital market crisis resulted in defining a new notion, namely the twin crises (twin crises). Kaminsky and Reinhart emphasized that financial liberalization in the 80s has led to the occurrence of twin crises. They stressed that fact that, in 1970, when financial systems were strictly regulated in most countries, currency

crises were not accompanied by banking crises. The sequence of events in these cases is from currency crises to banking crises, as was the case of the Asian crisis [Allen, 1996, 11].

Corsetti has developed a model a model of twin crises meant to explain the Asian crisis. It detected as a trigger, the moral hazard induced by government guarantees. Foreigners are willing to grant loans to finance unprofitable projects because of security provided by the state aid in case of default. When the profits made by these projects prove to be low, banking crises occur. Forecasts regarding the use by the government of its sovereignty for aid increases inflation expectations and furthermore to currency to dperciation [Allen, 1996, 14].

The succession of financial crises of the 90s began in Mexico and Turkey in 1994, then in Asia in 1997 and in Russia in 1998, rapidly propagating to other emerging countries and, making it necessary the reformation of the financial system architecture. Even if the crisis initially affected only the developing countries, their presence could also be encountered, although in a less serious form, in developed countries as well, an example being in this way beeing the European Monetary System Crisis of 1992, or the repercussions suffered of Japan.

In the case of Mexican crisis, the determinant factors were not those of social and political instability⁷⁴ nor the poor economic management, but rather the inability to control the portfolio investment flows together with a potentially high risk due to openness of the Mexican economy since 1989 to foreign portfolio investments [Grabel, 1998, 18]. In 1989, Mexico was considered to be one of the most dynamic emerging markets. Investor interest in the area was supported by government initiatives to political democracy and economic liberalization measures that have received immediate attention from the U.S. Also, the signing of the NAFTA⁷⁵, has created new investment opportunities in the area, giving them implicit U.S. guarantee for the investments made⁷⁶.

Turkey started to implement reforms of liberalization, since the 80s. At the end of the 80s, worsening economic conditions, led the Turkish government to consider a mechanism to overcome the recession, based on massive inputs of foreign capital, without, however, giving importance to structural deficiencies from which which the economy suffered. The last stage of capital account liberalization and the transition to full convertibility of the Turkish pound in 1989 increased in a

⁷⁴ This, however, characterized the earlier outbreak and Mexico during the crisis

⁷⁵ North American Free Trade Agreement

⁷⁶ High yields offered by the Mexican government bonds in the short term, have also been particularly attractive for both private and institutional investors. Both short-term dollar and peso denominated bonds, gave yields that exceed the ones available elsewhere, especially in the U.S., where the low 1993 interest rates encouraged investors to exit the country. Attracted by the higher yields in 1990 portfolio investments began to focus heavily on the Mexican financial markets. During this period in which the inputs of private capital flows have increased, the peso was fixed by the government to an overvalued level.

uncontrollable manner the inputs of capital from the outside. They have created a pressure on the exchange rate appreciation in real terms, which in turn has reduced exports and encouraged imports. In this context, inputs of funds were used to offset the current account deficit between 1989 and 1994. In fact, the lack of restrictions on public spending, as they could be financed through internal and external debt, has led to an increase in government deficit.

At the end of 1993, it became clear that the apparent increase in the Turkish economy was not based on solid foundations. All promoted policies, combined with the reduction of Turkey's rating by two international rating agencies, have precipitated the 1994 crisis, evidenced by a strong withdrawal of capital in the short term.

With regard to episodes of crisis in Southeast Asia, most authors argue that countries in the region were vulnerable to a financial crisis due to enhanced growth of capital flows, weak macroeconomic policies, as well as due to weak financial institutions and companies. The link between the balance of payments and financial crises is therefore very close, but this is already known and has been studied on several occasions by various economists [Reinhart, 2008, 15]. Kaufman emphasizes the link between banking crises and currency crises. The economies of Southeast Asia were called "Asian miracle" due to rapid industrialization, strong growth in GDP and exports in the 80s and 90s [Kaufman, 2000, 23]. Given the success of the respective economies, analysts have categorized them as model worth to be followed by other economies in developing countries that were facing problems.

Until 1997, Asia attracted almost half of the capital flows directed to the developing countries. Countries of Southeast Asia particularly maintained high interest rates, attractive for foreign investors who were in search of higher yields. As a result, the economies in the region have attracted significant flows of money, with dramatic increases in asset prices. Meanwhile, in the 80s-90s, Thailand, Malaysia, Indonesia, Singapore and South Korea recorded economic growth of 8-12% of GDP. These performances have been regarded, even by international financial institutions, as part of the "Asian economic miracle."

Not all economists have agreed with the "Asian miracle". Krugman attacked the idea, arguing that the economic growth of countries in Southeast Asia was the result of capital investment, which only increased the marginal productivity of the production factors, and not the overall productivity. He claimed that a total productivity growth can lead to long-term prosperity [Radelet, 1998, 17]. From 1985 to 1996 the Thai economy grew by an average of over 9% per year, registering the highest rate of growth of the time. Speculative booms have characterized in Thailand since 1992, on the background of increases in equity and real estate and prices, as well as a growth in the commercial construction business. As in other parts of the region, the capital market was invaded by flows of foreign portfolio investments.

Foreign investors were attracted by the high yields offered by Thai markets as a result of the 1990 deregulation.

The crisis began in Thailand, with the Thai baht collapse⁷⁷. At that time, Thailand had a large foreign debt that has actually led to bankruptcy of the country, even before the currency's collapse. While the crisis was spreading in most south-eastern Asian countries and Japan, a sudden depreciation of national currencies took place, along with a devaluation in capital markets and asset prices as well as a sudden increase in private debt. So there followed a massive withdrawal of investors from the Thai market.

In the fall of 1997, signs of the Asian flu began to make their appearance in Brazil as well. As investors left the market in Hong Kong, a similar exit was encountered in the Brazilian market, together with the liquidation of investments in national currency. Stock exchange index in Brazil fell by 8% on 23 October 1997, followed by a further dramatic fall five days later. In the three weeks after investors' exit in Hong Kong, the capital market in Brazil has lost 40% of its value. Central Bank of Brazil tried to temperate capital outflows by doubling official interest rate to 40%, and by mobilizing 8 billion in foreign reserves to protect the national currency [Cohen, 2004, 16].

At the end of October 1997 investor withdrawal began in the Russian market as well, at the same time with withdrawals from other markets like Brazil, Hong Kong and Southeast Asia. Stock Exchange index continued to fall in early December. Due to severe market decline, the president of that time, Boris Yeltsin stopped trading for several hours, trying to stabilize Russian Ruble by buying it on the open market. Also, the government has increased the interest rates on state bonds to 28% in an effort to prevent capital outflows and attract new foreign capital. Increased interest rates have imposed additional pressures on the state budget already scarce.

Looking back at the episodes of crisis in the 90s that have affected developing countries, in my view the main common feature is the fact that, to a greater or lesser degree, they took place in a period characterized by a sudden internal process of financial liberalization. All countries affected by the crisis tried to benefit as much as they could from the opportunities offered by international financial markets and, based on the neoliberal reforms promoted globally, they acted towards liberalizing their capital account.

Access to cheaper resources allowed them to accelerate the rate of economic growth and therefore become extremely sought for. Foreign funds that developing countries have managed to attract, at a first glance appeared to target different sectors of the economy, but in reality, most of them were concentrated in less

⁷⁷ This was caused by the decision of the Government Thai to install the baht flotation, following major efforts to sustain it in face of financial extensions, caused by factors in the housing market.

productive areas, in the way that the profits obtained were smaller than the cost of capital. Figure 11 presents the drastic increase in private capital flows to emerging countries.

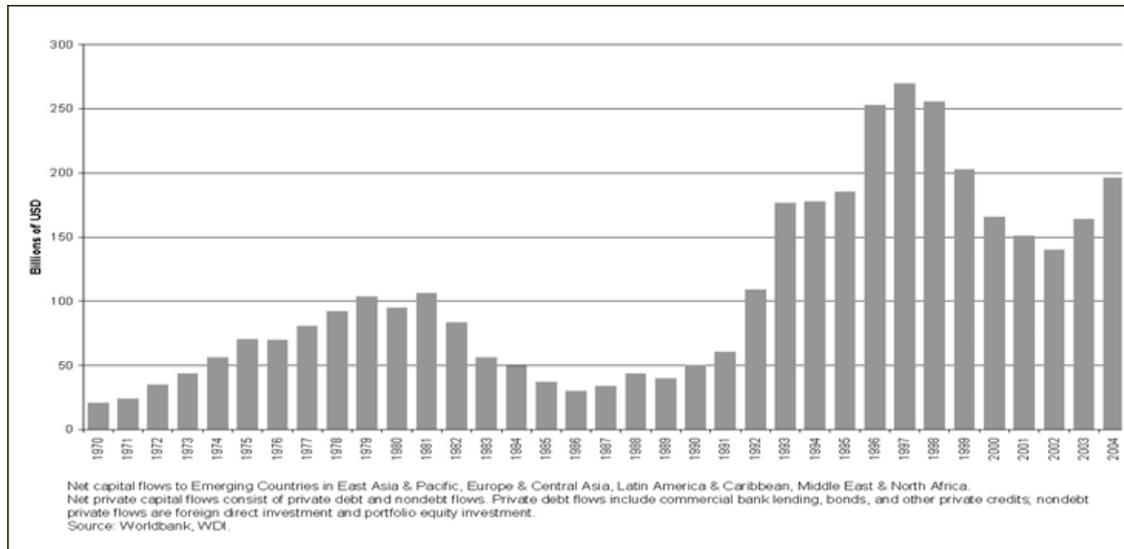


Figure 11 *Real private capital flows to emerging countries*

Sursa: [Bordo,2006,4]

Another feature common to the countries affected by the crisis is the fact that, when they acted in the direction of liberalization, they gave little importance to the scale of regulatory reform, which led to a weak regulation and supervision system. The attention was focused exclusively on the mechanism of the market, without considering the management problems that may be generated by the sudden opening of the capital account.

Since the 80s, the expansion of credit has characterized many of the developing countries, the trend being more pronounced in the case of the Southeast Asia crisis (banks and firms could easily access the international capital market). This development was due to the favorable situation, because of the missing role of supervision, regulation and discipline. Opportunities for easy access to foreign funds turned into a typical problem of moral hazard. Banks have continued to increase their loan portfolio, without taking into account any prudential limits, based on the fact that economies are sufficiently strong to prevent a crisis as well as widespread bankruptcies.

A similar situation existed in the case of Mexican crisis. The government in this country was exposed to a large volume of debt and channeled funds to the private sector through an increase in bank loans. The problem of moral hazard can be identified in the relaxation of credit conditions, which has stimulated a consumption boom and discouraged domestic savings process. As regards Turkey, even if part of the capital inflows was orientated to credit expansion in the period

before the crisis, most were intended to cover the budget deficit increases, due to pressures in income distribution in the reform and restructuring process.

The exchange rate, correlated with extreme capital account liberalization, has played, certainly an important role in all crises. Increased flows of foreign capital have boosted the demand for currency, which led to a considerable discretion, which combined with government policy typically of fixed exchange rates against the U.S. dollar, further reduced competitiveness and slowed down exports⁷⁸. In addition, the implementation of the capital account liberalization has been unable to control the supply of currency in the countries affected by crisis. Given that, the capital inflows have not contributed to an increase in productivity this resulted in inflationary pressures. In response, governments focused on controlling inflation and adopted a policy of stable exchange rates, which emphasized the tendency of overvaluation. This trend has rapidly become unsustainable because those countries did not have sufficient foreign reserves to finance the trade deficit, which grew rapidly.

In a synthetic manner, the aspects that have characterized the crises in developing countries in the 90s can be grouped as follows:

Table 9 *Financial crises in the 90s in developing countries: common features*

• Inadequate financial liberalization and high short term capital inflows
• National currency appreciation and current account deficits
• Errors in borrowed funds' use in a weak regulation framework

Source: the author

Despite the given common elements, the crises also present differences regarding: the magnitude, the degree of integration of the countries concerned on the international financial market, economic fundamentals that characterized the size and destination of foreign capital flows. If we consider the degree of integration into the world economy, the Asian countries, seen as a group, were more active on international markets, compared to Turkey, Russia or countries in Latin America. This is supported by indicators related to trade and share of exports / imports to GDP, as well as greater flows of capital they have managed to attract. This integration was equivalent to greater sensitivity to changes in external economic environment, as evidenced by the fact that the crisis in Southeast Asia was the largest after the great depression of the 30s.

As regards the macroeconomic fundamentals of the key deficiencies, these were less visible in the South Asia region, compared to other countries affected by crisis. These countries had acceptable rates of inflation and budget surpluses, and if there were deficits they were very small. An important role in the emergence and spread of the crisis has been played by the speculative or panic attacks, which was, relatively, surprising for those who have reported to the healthy fundamentals.

⁷⁸ from 1987 the U.S. dollar started appreciating

Going further, the funds' inflows, which in all cases were short term, in Asian region they have been concentrated, especially in the private sector, unlike the countries of Latin America, Turkey and Russia, where most of the debt has been drawn by the government. In the '80s, the mirage of the international capital market has attracted many Latin American countries, governments here contracting a large volume of euroloans often intended to finance unprofitable investment projects. In Turkey and Russia, big budget debt led to a massive increase in domestic and foreign loans. The funds obtained were used to cover the budget deficit and the countries concerned should have been aware that in order to pay this debt, they should be able in the near future to obtain a surplus.

Mexico situation is slightly different, because it was able to sustain a budget surplus after 1992, but the entries of foreign capital have not been much better used because they were directed to a consumption boom, without taking into account that the rate of profit of the used capital should be greater than its cost, in order for flows to be sustainable. As regards South-East Asia have, here there have been preferred financial investments and speculations in the real estate. The result was the creation of a vicious circle of unproductive and speculative investment, rising inflation, exchange rate appreciation and export decline rate, factors that have made countries more vulnerable to financial crises. As a concept, all countries that have received entries of foreign funds, higher or lower, although they have used these in different ways, however, giving little attention to the adverse effects they have generated.

Table 10 *Financial crises of the 90s in development countries: differences*

	Mexico	Turkey	South-East Asia	Russia	Brazil
The degree of integration in the world economy	Moderate	Reduced	Big	Reduced	Moderate
The amplitude of the crisis	Medium importance crisis	Minor crisis	Major crisis	Medium importance crisis	Minor crisis
Capital flows' dimension	Big speculative short term capital flows: the FDI represented 1/5 of the total fund inflows	Reduced flows of short term external funds, in the form of bank loans	Big speculative short term capital flows: Portfolio investments and bank loans	Big speculative short term capital flows in the form of bank loans; certain level of FDIs	Reduced flows of short term external funds, in the form of loans
Main borrowers	Government and private agents	Government	Private sector	Government and private agents	Government
Macroeconomic fundamentals	Modest	Weak	Apparently strong	Weak	Modest

Source: the author

5. CONCLUSIONS

Currently, globalization tends to dominate the contemporary world, imprinting, to a lesser or greater extent, all the details of life: at economic, political and cultural level. The financial environment has undergone a profound transformation in the context of globalization, financial flows of scale, the complexity and speed of transactions, as well as the diversification of financial instruments, being of critical importance. Financial markets are increasingly interdependent, and in this regard, the financial conditions of a region have an almost immediate impact on the national financial markets across the globe.

The size of the international capital markets has increased remarkably, as a result of market liberalization and growth of investment opportunities. Regarding the participation at the international financial flows, this does not remain restricted only to the economically developed countries, but has also focused to the emerging and developing countries, but these transactions being largely concentrated. One can therefore say that the developing or emerging countries are included in the global financial system, but in an extremely hierarchical and scratchy manner.

Seen in its essence, financial globalization is a complex process, with contradictory results and developments. Explosive development of financial activities and the complexity of the global financial markets have transformed the management of developed economies. This growth offers significant opportunities for governments and corporations to enter new markets and enables investors to obtain the best performance worldwide.

The development of more extensive and liquid capital markets, along with the increased competition and the use of new and more efficient technologies, leading to reduced transaction costs, an increased efficiency in the allocation of capital and easier access to external financing, also leads to increased production potential in the world. However, while global financial markets play a crucial role in the distribution of global capital, they do so in a way that can have profound negative implications, entailing certain risks and costs.

As demonstrated by the analyzed crisis episodes, globalization is capable of causing instability in the whole world, also enabling broad crises, and, not least, increasing the danger of recession in the world, based on the manifestation of the global systemic risk. Most affected in this context are the developing countries. Figure 12 tries to capture an overview on how globalization is contributing to increased financial vulnerability, to the emergence and development of episodes of crisis, both through national and international mechanisms.

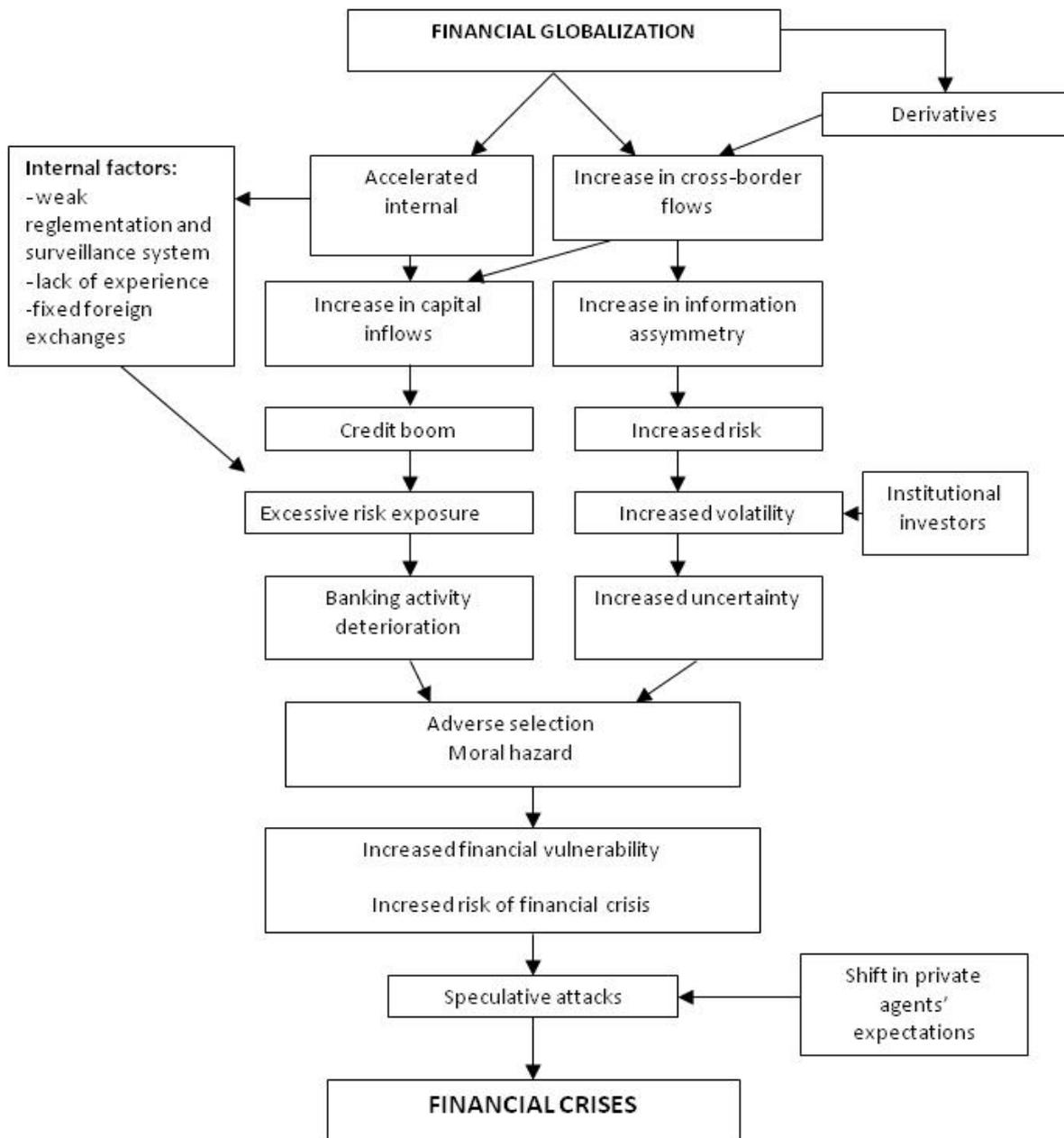


Figure 12 *The relationship globalization – financial crises*

Despite the differences that occur in each case, current account liberalization, in an incompletely regulated and the intrinsic instability of the global financial markets, are the main reasons of the outbreak of crisis in the 90s in the developing countries. We can say that financial liberalization was the result of two phenomena. On the one hand, the countries considered, for many reasons (the desire to increase competition in the financial sector in order to reduce interest on loans, participation in international organizations and agreements) that the process of liberalization as necessary to be adopted by their economies, and therefore we can say that it was due, in part, to internal factors.

On the other hand, financial openness of developing countries followed the normal pattern of the general process of globalization, which began to develop and

characterize the international economic system after the collapse of Bretton-Woods and has made possible for cross-border financial flows. After the financial liberalization process involving OECD member countries, from the mid 70s, the volume of funds in search of opportunities and higher earnings increased continuously. In this context, capital flows from developed countries targeted the least developed countries, particularly those in Latin America and Asia⁷⁹.

Another aspect to be taken into account is the increasing volatility induced by globalization. Volatility may be related to increased uncertainty by increasing information asymmetry. Thus, investors know more about national markets, compared with foreign markets, and therefore there is an increased uncertainty in cross-border transactions. Increased information asymmetry along with a large volume of cross-border funds has favoured short term capital inputs, denominated in national currencies, which indirectly led to excessive risk.

Without denying that the difficult economic situation in countries affected by crisis, is living proof of the fact that the international financial markets can have disastrous effects on national economies, it cannot be ignored the fact that imprudent policies have played a role in the process through which these economies have come to be very vulnerable to sudden changes in financial flows. If big countries, with extensive resources and markets, can long resist the economic forces, this happens very rarely in small countries, especially in those promoting imprudent policies⁸⁰. Inadequate management, a weak regulatory system, reduced cost of loans (financial openness has facilitated access to funds with interest rates lower) and the fixed exchange rates (foreign exchange risk was lower priced) are the main internal factors that contributed to increasing risk.

But taking into account all the variables in the equation, I believe that the successive crises of the 90s (Turkey, Mexico, Southeast Asia, Russia, Brazil) may be considered, rightly crisis of globalization. Even if all the affected economies had weaknesses and were vulnerable to sudden changes in the economic situation, premature liberalization and massive inputs of funds, associated with globalization, have exacerbated what could have proven to be a simple and limited financial crisis. The economic instability incurred by international financial crises along with the fact that they ultimately hit the population, prove, more than ever, the need for appropriate measures of crisis management and, both at national and international level.

⁷⁹ This trend supports the assertion that developing countries are included in the financial system globally, but in an extremely hierarchical and scratchy manner.

⁸⁰ USA, for example, had for 30 years and a trade deficit, however, there has not been any serious threat.

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A QUANTIFICATION OF THE 2008-2009 US BAILOUT PACKAGE

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***Abstract:** By examining the credit crunch causes and effects, this paper reflects on the necessity of the banks bailout package and its alternatives and quantifies a maximum non-inflationary bailout amount which is unlikely to cause permanent adjustments in the long term (trade-weighted) exchange rate equilibrium level of the US dollar. Furthermore it determines that the current bailout amounts are less than the maximum non-inflationary bailout amount and determines that to resolve the underlying credit crunch problem, an increase in non-bank bailout M1 and/or a tax reduction is necessary.*

***Keywords:** credit crunch, M1, M3, ISLM equilibrium, demand shock, Keynesian multiplier, monetary policy, fiscal policy, mortgage prepayments changes, MBS, velocity of money supply, long term equilibrium of exchange rates.*

Although formal acceptance of A-rated MBS tranches into the classroom definition of M3 has not yet occurred, Wall St had treated such tranches as money starting in the late nineties, on their liquidity assumption and in view that everyone grew accustomed to the US real estate market growing 10% a year and more until 2007. Until 2007, virtually every new mortgage issuance that met Fannie Mae's standards was sold and refinanced forward through To-Be-Announced (TBA) products.

Enjoying inter-bank liquidity and credit enhancement through their over collateralization through subsenior tranche subordination, the MBS tranches given the availability of subprime mortgage origination to form the subsenior tranches met the voracious appetite of Wall St. for leverage during the equities and real estate boom, which was assumed to continue given the low comparative US ratio of median house price to GDP per capita.

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It is safe to assume that given everyone's acceptance of MBS tranches, the Fed's window for refinanced assets had been used less, thus banks repoed other assets in the inter-bank market against MBSs. Thus in Greenspan's years, the Fed issued a lot less M1 than they would have had in the absence of liquid MBSs, and lacked the exact picture of credit deterioration, relying on the credit ratings agencies as a monitor despite the fact that later the raters got heavy criticism in the media for their MBS ratings methodology and for the fact that they only downgraded issuances a posteriori (i.e. after defaults occurred). This situation surely compounded the credit crunch later.

Due to the fact that bank reserves are required only on M1, except for tranches that did not meet the Fannie Mae criteria, there has been no slowdown on the credit multiplier induced by MBS tranches. Thus the magnitude of velocity induced by mortgage-backed-securities must have been high but formally unknown before the crunch commenced. Thus once the credit crunch commenced the banks bailout plus M1 increase policy and/or plus tax easing response in total should be the drop in mortgage-financed real estate value times the multiplier. Since the Fed does not calculate an actual multiplier but instead a M2 reserves-free velocity measure, which has been reported to be 1.75 in 2008 and 1.5 in first quarter 2009 (Source: Fed Reserve Bank of St. Louis, March 2009 Monetary Trends). The growth rate of velocity has been reported by the same source as at Qtr 1, 2009 to be at -50% so we assume the velocity for the whole 2009 to be 1.35.

$$A: (M1+M2+M3+MBS)_{t-1} * V_{t-1} = P_{t-1} * Q_{t-1}$$

$$B: (M1+M2+M3+MBS)_t * V_t = P_t * Q_t \text{ Assume } M1_{t-1} = M1_t, M2_{t-1} = M2_t \text{ and } M3_{t-1} = M3_t$$

We assume the bailout package to be non-inflationary if there is no real-growth (i.e. velocity-adjusted) in M1, M2, M3 and MBS during the GDP contraction, so the bailout will replace the quasi-M3 (i.e. MtM loss of all mortgages).

Obviously if the bailout package is too low, additional M1 amounts would have to be issued outside of the banking system, for example to buy government debt, in order to keep a GDP-adjusted, velocity-adjusted total monetary mass thus to alleviate the contraction.

The MBS values are not entered at nominal value, but at Market Value, since the multiplier base for MBS is the refinancing value thus the Market Value. The bid values are not used since based on the analyses, the long term market values converge to replacement cost of collateral. By stressing the nominal value by the maximum shock calculated below, we obtain the market values.

$$B-A=0 \Rightarrow (MBS_t + \text{Bailout}) * V_t - MBS_{t-1} * V_{t-1} = P_{t-1} * Q_{t-1} - P_{t-1} * Q_{t-1}$$

$$(MBS_t + \text{Bailout}) * 1.35 - MBS_{t-1} * 1.75 = -0.062 * P_{t-1} * Q_{t-1}$$

Source: Federal Reserve Bank of Saint Louis, 2008 6.2% Y-O-Y contraction in GDP at nominal prices

But as said, MBS_{2009} includes the Max Bailout so by solving for MBS_{2009} and subtracting $MBS_{2009\text{before bailout}}$ available in the Fed data, we find the Maximum non-inflationary bailout.

So let's calculate the bailout and provide further insight about the credit crunch.

The existing criticism to the credit rating agencies with regards to the opaque criteria for awarding A-ratings to MBS tranches made banks question ratings altogether and during the real estate exuberance accept lower rated tranches as collateral, the banks assuming the rating agencies to be biased downwards instead of upwards, making the banks assume a widespread credit improvement instead of a widespread credit deterioration. This conceptual error, whose culprit is indeed the credit raters, cost the banks dearly, since when the subordination attachment points of the senior tranches were bust as the credit crunch commenced and the already impaired subsenior tranches started to make payments to the senior tranche holders, the value of all collateral plummeted.

From 2001 to 2007, the subordination levels required by the credit agencies of subordinate tranches by the super senior tranche decreased by 27% (Source: Morgan Stanley) although real estate prices have gone up double digits every year thus the equity levels of the year estate have been dwindling. Thus at the time the equity left in the houses was depleted, the subordination was reduced instead of enhanced. Actually full backtesting results from older CDOs were not available since most of the older CDOs had a life of 10 years or more so there was no clear evidence of excess credit enhancement. It is actually odd that rating agencies were biased against the senior tranches since it is their investment grade ratings that they build their reputation on, the subordinate tranches were high yield anyway.

As the credit crunch started in mid-2007 with subprime (i.e. subsenior) defaults, which rendered senior MBS tranches with no credit protection, thus making prices of A-rated MBS tranches fall below Fannie Mae new issuance, except for the Fannie Mae issuances the MBS liquidity dropped considerably. As Fannie Mae started to report increasing defaults on their issuances in early 2008, the second mortgage refinancing collapsed, making all credit enhanced MBS suddenly repudiated as M3 collateral in the banking system. Even though the banking system had to deal with a lot of leverage now improperly collateralized, the Fed/SEC did not require additional collateral at once and only became involved in late 2008 through limited bailout and/or refinancing limited senior tranches, allowing the crunch to start violently.

While the Fed eased to below 1% funds rate, high yield credit spreads widened in 2008 to double digits (Source: Wall St Journal 2/19/2009), and the 1st Qtr. 2009 mortgage collateral accounting loss perception to the bubble 2006 levels is skyrocketing due to low bid prices – 10 cents on the dollar on secondary mortgage

pools with the owners still in the house (Source: Bloomberg, also Mark-it) (i.e. poor bids in the market – FAS 157 level 3 observable rules per the new FASB standard issued in 2007).

Of course 10% on second mortgages is an opportunistic bid. Obviously this low bid would assume that all second mortgages were taken at the peak of the bubble, despite the fact that equity lines have 10 year repayment terms, thus the refinanced amount may as well reflect current real estate values for 2004 and before equity lines, since the yearly appreciation from 2000 to 2006 was roughly 10% a year and the drop from 2007 was -18% for 2008 (Source: OFHEO, 2009)

I would introduce the dollar value difference from the 2006 price levels at the peak of the bubble and replacement cost as bounds of our maximum non-inflationary bailout estimation model, and I assumed that there is no excess square footage per capita in the US.

If there were excess square footage per capita in the US, the house prices could drop below replacement cost since there is no incentive to build. Since the houses prices are above replacement cost and there is no excess square footage, in absence of credit barriers to entry new building will in the long term drive the house prices to replacement cost. Indeed sales of new one-family houses in December 2008 were at a seasonally adjusted annual rate of 331,000 (Source: US Census). Sales of new one-family houses in December 2007 were at an annual rate of 604,000, 40.7% less than the 2006 figure of 1,019,000. This is an indication of the fact that although new building continues, it is decreasing and gradually the prices will converge to replacement cost.

The average American home in 1950 was 983 square feet (Source: msn real estate) and, according to Census data, the average American household size was 3.37 people. This means that in 1950 the average American had 292 sfpp (square feet per person).

In the years that followed home size gradually grew and household size gradually fell until, in 2006, the average American household of 2.61 (Source: US Census) shared a house of 2,349 square feet (Source: US Census). So, in 2006, the average American had 900 sfpp, and we assume that that number has stayed constant in the last two years.

Comparison of US with large countries with approximately the same population density per square mile such as Russia, Australia and Canada, where house prices have been quite stable recently, renders numbers in the same ranges (Sources: Rosimushchestvo, SACHA and CMHC).

I have obtained courtesy of Allstate and Liberty Mutual electronic files of 1000 2009 house fire insurance policies in New York Metro area (the policy price was blanked out for corporate pricing confidentiality purposes), for houses bought last in 2006, at the peak of the bubble, mostly Long Island and Brooklyn zip codes.

Having both to replace a lot of properties destroyed by hurricane Katrina in 2006 (I picked the names of the 2 companies from a 2008 list of Katrina hazard loss payers at Insurance Information Institute), I assumed that Allstate and Liberty Mutual by then were expert in cost calculation, and that New York City had been at the peak of the bubble as much as California and Florida were overpriced compared to other states so the difference between their 2006 prices and their replacement cost had been the highest in the country. Thus in the context I considered the sample size was representative for the test. Obviously replacement cost and purchase price were the inputs in the policies I was looking for. I had found an average of 32% between the prices at which the 1000 New York City properties had been bought in 2006 and their replacement cost, with 39% of the purchase price the highest for better school districts and larger backyards and only supported by one insurance company, while the other's highest number was 30%. So the 2 insurance companies had narrowly divergent views across same zip codes. Thus I am going to use the 39% number in my stress tests as the most severe potential drop in price brought by the credit crunch. Of course per actuarial science, convergence to the mean occurs over time. Thus to alleviate the price drop for the repossessed houses the government may want to hold the repossessed houses for a while as to not cause a fire sale, or to not evict at all during the recession.

In 2008 68.5% of US citizens were house owners (US Census) versus 67.8% in 2007 and 68.9% in 2006. Thus the marginal drop from the beginning of the credit crunch 2 years into the credit crunch shows that people did not dump their houses purposely as a result of the credit crunch. The combination of a decreasing percentage of house owners with a decreasing number of new houses built also signals convergence to replacement cost as costlier properties were abandoned to buy newly built properties on a descending overall price trend.

The decreasing from a high base, but stable number of house owners with an insignificant number of new houses built relative to the number of owners shows that the bank losses reported recently reflect payment stops of 6 months and more and not an accelerated exit from the house market, namely sale of house at amount less than mortgage and leaving the bank with losses, which would have changed this analysis. So if the banks do not repossess the houses, which would stir more volatile movements in the prices due to a sudden unexpected positive supply shock, the bailout of the government is in reality a rollover of the mortgage, a handout by the government to banks to make them roll over the mortgages and keep the owners in the house. Thus if we expect the recession to last 4 years which is a normal longer recession cycle, the 4 years or less of non-payments is split between government and banks in exchange for a shareholder stake in the banks. If the mortgage holders eventually find a job and resumes payments, the government makes money. Suppose that out of the bailed outs pool half of the people resume payments and half are

repossessed and the price drop for the repossessed house is 50% (a shock more severe than the assumed most severe price drop of 39%), the government still makes money as for a 16 year duration mortgage, the interest collected is 66.5% of the loaned amount at a 7% average rate. This is supposing that for the bailout amount the government charges the average mortgage rates. Thus to alleviate the price drop for the repossessed houses the government may want to hold the repossessed houses for a while as to not cause a fire sale knowing that it makes money from the employed pool. Jumping in on the bandwagon of previous years' mortgage rates is a good idea for the government from a cost-benefit perspective in a much lower interest rate environment.

It is not clear if the bailout money has a multiplier since the bailout may be used by some banks to meet the 8% Tier 1 reserve ratio, without the banks awarding fresh credit from it. If the banks award fresh credit from it, it saves the government from additional spending prescribed in a recession, so the money would have nevertheless been issued (ISLM model context). We are going to show this in Part II of the paper by building an ISLM model.

However, new loan issuance reversed to negative year on year growth percentages in fourth quarter 2008 (Source: Standard and Poor 2009), after in the first three quarters of the year the year-on-year growth was far below the historical 8-10% yearly growth expectations. According to the same source, new issues of bonds and securitizations collapsed to almost no new issuances in 2008.

To see if the banks' equity is eroded, we assume prepayments to drop suddenly to zero during a long 4 year recession cycle, which is likely to extend the average US mortgage duration for a 30 year mortgage of 12 years (Source: OFHEO) to 16 years, with government's help.

Assuming the cost of funding of the banks stays the same (Fed has hinted that the policy of easing thus is not stopping soon thus the low interest-rate environment is expected to continue), as the internal rate of return in the mortgage context per FAS 91 is positive, extending duration by decreasing prepayments is increasing the accounts receivable while keeping constant the internal rate of return (see table below) thus the profit. Making the same analysis under the opportunity cost scenario, renders the same conclusion as currently the mortgage rates are decreasing and the lowest in 5 years (Source: OFHEO, March 2009).

Table 11 *An analysis of banks government bailout on banks equity. Source: self, hypothetical analysis.*

Funds advanced USD	Effective Duration	Monthly Payment	IRR= $\sum \text{PMT}/(1+i)^n$ Equals old mortgage rate	Discount rate	PV= $\sum \text{PMT}/(1+DR)^n$ DR=Discount Rate=Opportunity cost same credit risk = new mortgage rate
100,000	12 years	1,028.38	7%	5%	109,381.39
100,000	16 years	867.21	7%	5%	112,788.67

Therefore the bailout package in a low interest rate environment is increasing the equity of the banks.

The total of mortgage-financed real estate loans in 2008 for single and multi-family residential homes was 12,000 billion dollars (Source: Board of Governors of the US Federal Reserve System, 9/18/08). Thus if we assume a 39% shock on this number, the 787 billion proposed rescue package seems minuscule at less than one percent of the total mortgage base.

The 12,000 billion dollars mortgage base does reflect the correct number to apply the maximum shock on, since over 2004-2007, the growth rate of this number is close to the real estate index yearly appreciation, the rough price appreciation of real estate during that time. We want to see if the owners maxed out on their second mortgages/ equity lines thus aggressively monetizing the real estate appreciation. Thus knowing that the new houses sold get new mortgages, we backed out the yearly new homes sold at the average US home price out of the total mortgages number to see a clean refinancing growth trend. The house ownership percentages are quite stable, their increase by 1% in 2004 let's assume bought new homes in 2004 as 1% of the total population of US is close to the new houses built and sold to new owners in that year. As the house owners growth rate is negative starting in 2005, it means that from 2005 through 2007 existing house owners bought more properties gobbling the new homes sold number as the vacancy rates are nil during that time. So most of the existing house owners postponed their sale decision but dynamically maxed out their equity immediately and the bailout base of 12,000 bn dollars stands.

Table 12 *A comparative analysis of mortgage growth in the US Source US Census, various other US Official Statistics Sources and own calculations*

Year	2003	2004	2005	2006	2007	2008
Home	7232	8269	9231	10456	11168	11166
Multifamily residential	544	592	664	718	817	866
Total	7776	8861	9895	11174	11985	12032
Total less new homes sold at average US home price	7401.25	8458.25	9466	10807.75	11723.5	11874
Growth rate		13.95%	11.67%	12.93%	7.26%	0.39%
New homes sold	1499000	1611000	1716000	1465000	1046000	632000
Growth rate new homes		7.47%	6.52%	-14.63%	-28.60%	-39.58%
House owners %	68.30%	69.00%	68.90%	68.80%	68.10%	67.80%
House owners growth rate		1.02%	-0.14%	-0.15%	-1.02%	-0.44%

If we revert to the equation above, $MBS_{2009} * 1.35 * (1 - MBS_{2008} * 1.3 / MBS_{2009}) + 1.35 * \text{Bailout} = -6.2\% * GDP_{2008}$

And we have as $-6.2\% * GDP_{2008} = -862.71 \text{ bn}$ (Source: US Bureau of Economic Analysis)

$$\text{Bailout} = 4,895 * 0.61 * 1.35 * (1 - 4,464 * 1.3 / 4,895 * 0.61) / 1.35 = 1,452.3 \text{ bn}$$

So the maximum non-inflationary bailout package using this method is 1,452.31 bn dollars, almost double the 787 billion proposed. This number could be slightly reduced by assuming some older mortgages and rental properties in the MBS base whose elasticity to real estate prices being low seems reasonable, but still the 787 billion number seems extremely low.

In view of the low direct bailout amount, let's build an ISLM model which will capture the monetary policy and the easing alternatives for this extreme contraction following the period of financial innovation when MBS tranches became widely accepted as enhancing M3. It is clear that structural changes in the demand for money had made banks accept MBS as quasi-liquid instruments, redefining money supply. Thus it is clear that the abrupt drop in property prices became a supply shock to the US economy.

It was clear that in the years of the bubble, the Fed did not control M3.

The ISLM model assumes equilibrium between the goods market and the money market, in an environment where inflation expectations π^e are exogenous and y (GDP) and i (nominal interest rates) are determined out of the model, and $i - \pi^e$ is the real interest rate. ISLM ($y_0, i_0, \pi^e, i_0 = \pi_0^e, \mu = \pi_0^e$). $\pi = p - p_{-1}$. μ the growth rate of money supply equals the inflation expectations (condition of the construction of the LM curve), $\mu - \pi = m - p - (m - p)_{-1}$. If $\mu > \pi$ money balances are growing. Thus on the demand side, given income and price levels, the demand for money is inversely related to nominal interest-sensitive money supply and the money multiplier cannot be controlled, $k = k_0 + bi$.

$m - p = a_2 y - a_3 i$ is the equation of the LM curve with slope a_2/a_3 and intercept $m - p / a_2$

The points on the LM curve represent equilibrium in the asset markets. Thus we can assume that during the bubble years the mortgage expansion (i.e. expansion not due to expansionary monetary policy) shifted the LM curve to right so $\mu > \pi$ for a period of time, reflecting a structural change in the demand for quasi-money from banks. This increased liquidity in mortgage pools is equivalent to as if the Fed had pumped more money into the economy. The increased real money balances reduced both the nominal and the real interest rates, from 10% mortgage rates in the late nineties to 6%, stimulating investment and increasing aggregate demand (See Shift 1 in Figure 13).

π^e the inflation expectations are independent and constant, irrespective of π_t the realized inflation in the year t . Thus the Fed is presumed to be credible, coherent and inflation-neutral. Indeed the inflation expectations are contained and constant for the past 5 years, and so is the realized inflation around 2% (Source: Board of Governors of the US Federal Reserve System, 9/18/08) Thus the ISLM model can be applied in this context, supposing the Fed continues to apply its anti-inflation policy and be inflation-neutral.

The points on the IS curve represent the environment where aggregate demand equals aggregate supply only for a given rate of expected inflation.

$S(\text{aving})=b_0+b_1y$ where b_0 are inheritances, b_1 is elasticity of savings and taxes with respect to income which equals the marginal propensity to save and tax over the average propensity to save and tax. Both are between 0 and 1 so their ratio can be higher than 1.

$I(\text{nvestment})=b_2+b_3y-b_4(i-\pi^e)$ where b_2 the exogenous government expenditures, b_3 is the interest elasticity of investment expenditures and b_4 is the banks surplus. In the current environment, the banks are decapitalized due to $i=\pi^e$ and except for the tax stimulus there is no incentive to invest for the same reason.

$S=I$ is the budgetary constraint, which renders $y=-b_4(i-\pi^e)-b_0+b_2/(b_1-b_3)$ with slope $(b_3-b_1)/b_4$ and fiscal policy contained in the IS curve with tax effect $(b_2-b_0)/(b_1-b_3)$

So $IS(\pi^e)=LM(\mu)$

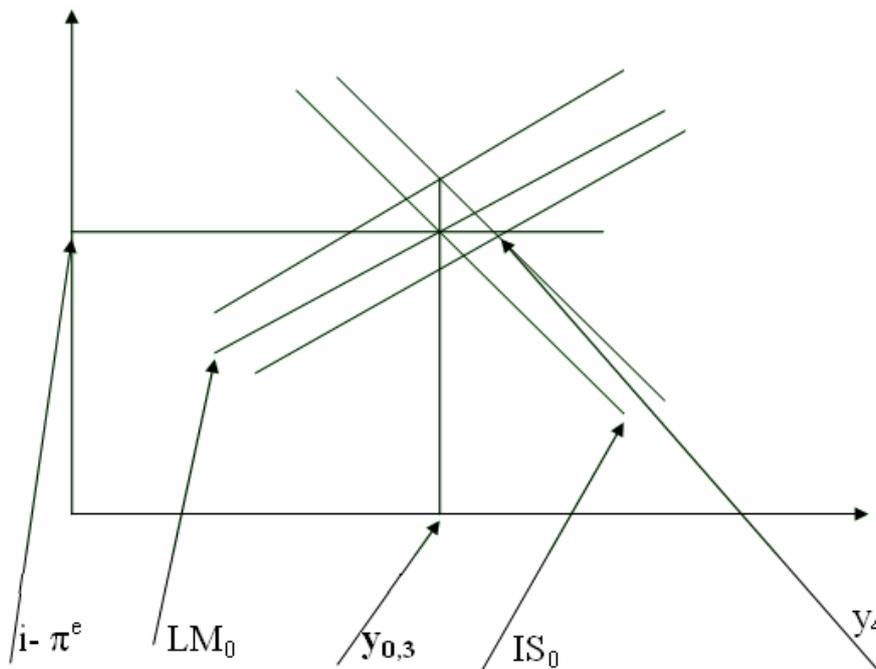


Figure 13 ISLM Equilibrium during the credit crunch

Initial equilibrium is at y_0 , formed by LM_0 and IS_0 . During the bubble years, a permanent shift in the LM curve occurs, creating higher income and lower nominal interest rates. As the mortgages, due to losses, lose liquidity, a contraction reduces income drastically and raises non-investment grade interest rates, crowding out investment. The bailout package restores equilibrium levels to pre-bubble levels y_3 . However, an increase in government expenditures associated with a decrease in lump-sum taxes shifts the IS curve to superior income y_4 above both pre-bubble and bubble levels, at pre-bubble nominal interest rate levels.

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Essay

LESSONS FROM THE CURRENT FINANCIAL CRISIS. A RISK MANAGEMENT APPROACH

Gheorghe VOINEA*, Sorin Gabriel ANTON**

***Abstract:** In the last twenty years, the financial risk management has gained an important role for the companies and financial institutions. Financial innovations have improved the efficiency of risk management process, but at the same time, they have imposed new challenges for market participants and their supervisors in the areas of systemic risk. An important feature of periods of financial innovation is that the rapid increase in new products and changes in the structure of those markets can outpace the development of the risk management and processing and settlement infrastructure. The current financial crisis has revealed significant weaknesses in risk management practices across the financial services industry. This paper analyses the main lessons that can be drawn from the current financial crisis in order to improve the financial risk management.*

***Keywords:** risk management, financial crisis, lessons, credit derivatives, financial innovation, systemic risk.*

***JEL Classification:** G01, G15, G32.*

1. INTRODUCTION

The current financial crisis has begun in August 2007 and has been considered the worst financial crisis since the Great Depression by George Soros, Alan Greenspan, Joseph Stiglitz, Jean Claude Trichet, and the International Monetary Fund⁸¹.

Among the factors that contributed to the current financial crisis are cited: increased innovation in financial products and their growing complexity; inappropriate regulation and supervision of financial markets; **poor or lax risk management practices** at banks and other financial institutions; increased complexity of financial systems; financial market speculation; predatory lending

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⁸¹ "The financial market crisis that erupted in August 2007 has developed into the largest financial shock since the Great Depression, inflicting heavy damage on markets and institutions at the core of the financial system.", International Monetary Fund, „World Economic Outlook”, April 2008.

practices; a combination of cyclical and structural factors (Dăianu and Lungu, 2008);

Risk management is described in the financial literature as being concerned with identifying and managing a firm's exposure to financial risk; financial risk is defined as the variability in cash flows and market values caused by unpredictable changes in the commodity prices, interest rates and exchange rates (Kaen, 2005).

Financial risk management has become a booming industry starting '90 as a result of the increasing volatility of financial markets, financial innovations (financial derivatives), the growing role played by the financial products in the process of financial intermediation, and important financial losses suffered by the companies without risk management systems (for example, Enron and WorldCom). Some risk management practices in recent years appear to have been driven by the need to meet regulatory expectations set by such initiatives as BASEL II, KonTraG (*Gesetz zur Kontrolle und Transparenz im Unternehmensbereich*) in Germany, and Sarbanes-Oxley in the United States. Forward contracts, futures, options, swaps, and other more complex financial instruments allow today firms to transfer risks to other economic agents who are able or more willing to bear them.

Risk management is nowadays considered as a key activity for all companies. Many of the disastrous losses of the 1990s, such as those at Orange County in 1994 and Barings bank in 1995, would have been avoided if good risk management practices have been in place (Hull, 2007).

There are two approaches of the risk management process: the traditional one and the ERM. The traditional approach, a segmented and compartmentalized one, consists in the following: different risks are delegated to different specialized persons who use different instruments to tackle these risks. For example, the property and liability risks are the responsibility of the risk manager. At the same time, the treasurer is responsible to manage financial risks (such as exchange rate, interest rate, and credit risk) using different types of derivatives contracts (options, forwards, futures, and swaps).

In the second approach, called Integrated Risk Management (IRM) or Enterprise Risk Management (ERM), all the risks are assembled in a strategic and coordinated framework. Enterprise risk management requires an entity to take a *portfolio view* of the risk. Corporate Risk Management is subsequently motivated by market imperfections, such as asymmetric information, transactions costs, non-neutral taxes and limited access to external financing.

2. RECENT LITERATURE ON FINANCIAL CRISIS

In the financial literature we can observe in the last two years a **substantial amount of analysis regarding the risks management practices** before and during the current financial crisis. Some example of recent papers include: *Enhancing*

Market and Institutional Resilience (Financial Stability Forum, 2008); *Credit risk transfer* (Working Group on Risk Assessment and Capital, 2008); *Observations on risk management practices during the recent market turbulence* (Senior Supervisors Group, 2008); *Supervisory lessons from the sub-prime mortgage crisis* (Basel Committee on Bank Supervision, 2008); *Study of market best practices* (International Institute of Finance, 2008); *Risk management practices including the identification of risk management challenges and failures, lessons learned and policy considerations* (International Monetary Financial Committee, 2008). One important finding of these studies is that the investors have underestimated the risks due in part to products complexity and over-reliance on quantitative analysis. In many cases, including rating agencies, the risk evaluation of Collateralized Debt Obligations was wrong.

Theoretical and empirical studies presented the **limitations of risk management practices** before and during the current financial crisis. René Stulz (2008) argued that there are five ways in which financial risk management systems can break down, all exemplified in the current crisis and other recent ones:

- failure to use appropriate risk metrics;
- mismeasurement of known risks;
- failure to take known risks into account;
- failure in communicating risks to top management;
- failure in monitoring and managing risks.

Empirical evidence suggests also the limitations of the risk management practices during the current financial crisis. A study conducted in 2008 among 125 top finance executives representing a solid cross section of American industry showed that approximately 72% of respondents expressed concern about their own companies' risk management practices and ability to meet strategic plans. Similar, a survey carried out in 2008 by the Economist 500 senior management involved in risk management from leading banks around the world identified the weaknesses in risk management that contributed to the current financial crisis:

- weaknesses in risk culture and governance;
- the lack of risk experience and skills amongst senior executive and non-executive management;
- lack of influence of the risk function;
- the way risk is measured and reported;
- a compensation culture too oriented towards year on year profit increases;
- business models that were overly reliant on ample market liquidity, ignoring the liquidity risk (KPMG, 2009).

Many studies have highlighted the need for improved Integrated Risk Management: Hanziger (2008), Stulz (2008), Dăianu and Lungu (2008), KPMG(2009), Stulz (2009), Hull (2009).

3. CURRENT FINANCIAL CRISIS – CAUSES AND CONSEQUENCES

In our opinion, the deep crisis that the global financial markets and the banking sector have been confronted with for more than a year has three main causes (Anton, 2009).

First, the USA has been blocked in one of the worst real-estate recessions in its history. What is occasionally seen as the crisis of modern financial instruments has a real economic background. The massive boom on the real estate market in the USA, accompanied by the doubling of prices between 2000 and 2006, is now followed by a significant decrease. Thus, in August 2008, housing prices were 15% under the level of prices in the previous year. At present, price stabilisation is not foreseeable and one should not exclude the hypothesis that prices will continue to fall in the same proportion. At the same time, a significant number of debtors cannot pay back their interests and mortgage instalments. The total volume of *subprime* and *Alt-A* mortgages that have been affected by the crisis amounts up to \$ 2.000 billion.

Second, financial innovations of the last two decades facilitate the transfer of risks associated with mortgage credits. A significant part of risks associated with mortgages have been transferred via securitisation and sold to investors at global level. In principle, the broader spread of risks stabilizes the system, because in opposition with previous crises, banks no longer need to bear the ensuing losses alone. The broad spread of risks, however, changes the dynamics of the market. While a few years ago credit risks were evaluated only by a small number of experts, nowadays the market analyses them through thousands of participants. Doubts concerning rating quality and price formation caused, in the summer of 2007, the *abrupt exit of investors from the market, massive price falls and the total loss of liquidity of the market*. Owing to the ensuing uncertainty, the crisis has seized other segments of the market as well, such as the segment of commercial buildings or of credits to finance acquisitions. Because transaction positions are reported as *fair value* or net recovery value, many banks have registered huge losses. It was only through the decisive intervention of central banks that tensions could be kept under control.

Third, the development of risk management could not evolve at the same pace as financial innovation. For years, the financial and banking sector has striven to implement the Basel II Agreement. Yet the latter refers to assets from the investment portfolio. Innovative structured products affected by the crisis are highlighted in the transaction portfolio, since they were intended for resale. Due to the decreasing demand for these products and the corresponding decrease in prices, risk management in many banks was caught totally unprepared by the crisis. Banks that did not have credit derivatives in their transaction portfolio found themselves, all of a sudden, confronted with the necessity to correct their value in the balance sheet.

Turmoil on financial markets has spread, since many big banks and brokering societies did not have an effective risk management. Some firms invested in assets or sold credits to special investment vehicles, even though they were not bound by contract to do so. Few companies have anticipated the liquidity deficit at the level of the balance sheet. Issuers of Collateralized Debt Obligations, whose reference is securitised financial instruments (ABS CDO), have preserved the least risky positions (senior or super-senior) and have registered losses in the market marking process under the circumstances of deepened *subprime* credit crisis. The complexity of the positions of these instruments has led to difficulties in their evaluation when market liquidity decreased markedly and correlation risk was materialised on the Collateralized Debt Obligations market as concentrated exposure to subprime credit risk.

4. LESSONS FROM THE CURRENT FINANCIAL CRISIS

The implications of current financial crisis on the international financial markets are multiple. We know that the final lessons of the crisis can't be drawn now because we need more information and analysis. The current financial crisis has brought home a number of half lessons from the risk management point of view.

One is that financial innovations can hold unknown risks. For example, the use of credit derivatives for hedging or speculative purpose implies numerous risks, such as: credit risk, counterparty risk, model risk, rating agency risk, and settlement risk (Gibson, 2007).

The process of financial innovation on the financial markets has determined a reduction of transparency and an increase of the markets interconnectivity. Furthermore, the complexity of financial innovation has generated a separation between money offer and demand. Due to the lack of transparency on the markets for financial innovations and to the complexity of these instruments, investors couldn't **identify and assess properly the risks implied by their investments**. As a consequence, the negative perception of risks has expanded on other financial instruments, the risk level has been reappraised and the liquidity has fallen (National Bank of Romania, 2008). Furthermore, the evolution of price and risk associated to the financial innovation (CDOs) is very hard to predict during financial turmoil.

Another important lesson is that standard quantitative models for risk management evaluation/assessment and the users of these models (analysts) **underestimated the systematic nature of risks**. One should notice that the banks have too similar risk management strategies, which could amplify systematic risk. Using the same models (Value-at-Risk) the investors came to the same conclusion at the same time, adopted similar decision, thereby increasing systematic risk. In order to address this shortage, the financial institutions should use more stress testing and scenario analysis to help measure and manage risks. A wide variety of approaches to

manage risk would help reduce the chances of a common reaction and, at the same time, such measures will be either flexible or sophisticated enough to fully capture the range of possible outcomes.

Innovations in credit risk transfer markets have given rise to some new challenges for market participants and their supervisors in the areas of **systemic risk**. An important feature of periods of financial innovation is that *the rapid increase in new products and changes in the structure of those markets can outpace the development of the risk management and processing and settlement infrastructure* - in the credit derivatives sector the gaps in the infrastructure and risk management systems are considered the most conspicuous (Geithner, 2006). The complexity of some financial innovations and the relative immaturity of the various approaches used to measure the risks in those exposures amplify the uncertainty involved.

One of the most important financial innovation for the credit risk management are the credit derivatives, such as Collateralized Debt Obligations and ABS-CDO. A key feature of credit derivatives is that they *separate the origination of credit, the funding of credit, and the holding and management of credit risk*. Under the impact of credit derivatives, the banks are changing their business model. Hereby, the traditional „buy-and-hold“ model is replaced by some important banks with the „originate-and-distribution“ model (Trichet, 2007). The traditional „buy-and-hold“ (or „originate-and-hold“) model implies all aspects of the credit process (originating the loan, funding it, and holding and managing the associated credit risk). The „originate-and-distribution“ (or „underwrite-and-distribute“) model suppose the separation between origination and funding of credit, on one hand, and holding and management of credit risk, on the other hand. Nowadays, the banks distribute portfolios of credit risks and assets to other market players (hedge funds, insurance companies), acting as risk managers in addition to pure credit providers. In our opinion, the business model “originate-and-distribute” will survive, but the banks should improve their risk management models.

Among the risk management failures it can be observed the **inappropriate recognition of counterparty risk**. The counterparty risk is measured by losses that may result via the OTC derivative contracts to the financial system from the default (or fail) of one or more banks or broker dealers. The importance of counterparty risk management in the Over-The-Counter derivatives markets have been well-documented by Segoviano and Singh(2008).

The incentives and compensation policies promoted by the financial industry have not been appropriately correlated with the risk management. Because the compensation culture have been too oriented towards short-term gains, the managers have assume growing risks which they did not understand or which they disregarded.

Due to the concentration of derivatives transactions at a small number of dealer banks, these markets have been exposed to the systemic risk. After the collapse of one of the biggest investment bank-Bear Stearns, which was very involved in the Collateralized Debt Obligations (CDOs) market, the investors have asked their self if the principle “too big to fail” is still valid, which bank would have financial distress and which are the major effects of the collapse of an important actor in the credit derivatives market.

The lack of prudential regulation for a segment of credit markets determines increasing risks. In the United States of America the subprime mortgages markets are not regulated by the Federal Reserve Systems, even if almost 15% of the value of the mortgages market is subprime.

The international rating agencies such as Moody's, Standard & Poor's and Fitch Rating have given easily prime ratings for the first tranche of CDOs, and in this way, they increased the lack of transparency. The rating agencies have recognized that in time they have been surpassed by the volume and the complexity degree of financial instruments which they should rate. Furthermore, the current financial crisis has presented new elements which did not correspond with the classical risk models used by the agencies in order to asses the credit derivatives.

Many investors have not properly understood the difference between CDO ratings and bond ratings, which determined the underestimations of CDO risks. While the performance of the corporate bonds depends on the condition of the issuing company and the macroeconomic conditions, the performance of the CDO depends more heavily on the macroeconomic cycle. At the same time, the estimations of CDO's default probabilities are based on the historical data from good times since these financial innovations have never previously experienced serious market turbulences.

During the financial crisis many financial institutions have revealed the lack of risk experience and skills at the non executive Board level and the failure in communicating risks to top management. The risk manager task is to identify and assess the risks faced by the company, to communicate these risks to the board of directors and to the CEO, and to manage those risks. If the reports about risk exposures are too complex or not very clear, then the risk management systems will fail. For example, the Swiss bank UBS, which was very affected during the current financial crisis, tried to explain its subprime and housing exposures in an overly complex way and to the wrong audience (Stulz, 2009). In the UBS report to its shareholders, the bank explains that “a number of attempts were made to present subprime or housing related exposures. The reports did not, however, communicate an effective message for a number of reasons, in particular because the reports were overly complex, presented outdated data or were not made available to the right audience. The extensive catalogue of risk reports runs against a simple presentation

of the risks that needed to be managed and identification of the actions that needed to be taken. Risks were siloed within the risk functions, without presenting a holistic picture of the risk situation of a particular business.” (UBS, 2008).

Another important lesson of the current financial crisis is that financial institutions should respect the rules of corporate governance and the principle of segregation of duties. In the centre of risk management infrastructure should stay a strengthened risk governance regime.

4. CONCLUSION

The ability to manage risks is a source of competitive advantage and a way to increase the shareholder value for non-financial and financial corporations. The financial crisis of recent years has highlighted the need for improved enterprise wide risk management procedures. In order to address the main shortages highlighted by the current financial crisis, the financial institutions should put more emphasis on stress testing techniques and rethink the compensation plan. At the same time, the evolution of global financial markets enforces an upgrading of the actual regulation and settlement systems in order to respond to the new systemic risks, to assure the financial stability and to contribute to the global financial governance.

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WHAT ROLE HAVE BANKS IN FINANCIAL CRISES?

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Abstract: *Financial crises mainly manifest themselves at the level of financial institutions. Although financial crises can also be generated within non-financial institutions, the role of banking institutions in the occurrence, transmitting and solving of financial crises is a deciding one. Banks play a deciding role in the development of financial crises as financial intermediaries who contribute to the efficient transfer of funds from the abundant agent towards the deficit agents. Banks can facilitate the financial crises through the activities performed on the financial markets that can influence the interest rates, the uncertainty on the market and the price of assets, but moreover bank crises can occur that transform financial crises.*

This paper aims to analyze the role of banks in the emergence, the propagation, the prevention or solving financial crises.

Keywords: *financial crises, bank crises, contagion*

JEL Classification: *G01, G21*

1. INTRODUCTION

The development of financial innovations and risky speculations, the expansion of loans, the increase of the prices of assets without any economic basis, the sudden and unexpected decrease of the prices of financial assets and the quick orientation towards liquidities or quality investments are unavoidable as long as investors follow the obtainment of as large as possible profits. Under these circumstances, the emergence of the financial crisis is not a novelty, but, as a defining trait of it, the global financial environment enables the possibility of transmitting the crises in the entire system, respectively their contagion.

Bank crises, as special forms of manifestation of financial crises, are known for a long time. No matter the type of financial system (market-based or bank-based) or the degree of development of the financial system (very developed, market

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functional, developing or emerging), bank crises have marked most of the states of the world.

The vulnerability of the banking system must be sought in the very essence of the basic banking activity – the granting of loans based on attracted deposits. The system is functional as long as the banks keep, in liquid form or in investments with a high degree of liquidity, a part of the attracted deposits in order to be able to handle the withdrawal requests coming from the deponents. If at some point most of the bank's clients would request the withdrawal of savings, the bank could be on the end up of bankruptcy. Because of the special characteristics of the banking activity, the bankruptcy of a bank is similar to the unbalancing of a domino piece that attracts with it the crashing of the entire system. That is why, the prevention or solving of the bank crisis, in its first stages, is a necessity acknowledged by authorities and highlighted by their massive degree of involvement in solving crisis situations.

2. DEFINITION AND CLASSIFICATION

The term *financial crisis* was explained by considering numerous aspects, such as the causes, evolution and impact of this phenomenon. According to *EFC (2001)*, the financial crisis is any situation in which a financial institution, or a number of financial institutions, is in incapacity of fulfilling its statutory obligations, a situation which negatively affect the functionality of the entire financial system.

According to *Kaminsky and Reinhart (1999)* financial crises can be defines depending on the forms they manifest themselves in: currency crises, bank crises and “twin” crises. In the case of currency crises, the attacks, internal or external, on a currency produce important reductions of the currency reserves, substantial and acute depreciations of the currency exchange rate of combined effects of these. Bank crises are generated by a series of micro and macroeconomic factors, and the forms they take vary from declaring bankruptcy, merger or overtaking by the public sector by nationalizing a bank, a group of banks or the entire banking system. Twin crises are a combination of the currency crises with the bank ones.

In the literature in the field financial crises are analyzed in a temporal approach and it makes the distinction between I, II and III generation crises. The I generation crises are specific to the '80s and they take on the classic form of the balance of payment crisis and of the budgetary deficit financed through internal loan and are considered to be generated from the inside. The crises in this generation are specific to small economies with fixed exchange rates and that have liberalized the capital account, being, for these reasons, sensitive to speculative attacks that could easily degenerate into currency crises.

The second generation of financial crises stems from the speculative attacks on the currencies in the European Monetary System in the years 1992-1993 and from the Mexican crisis in the years 1994-1995. The possibility of occurrence of the

financial crises even in an economically stable environment was illustrated, these crises being considered as self-generating. The model presented in this category is a edited one, having three major participants: the government that is the position to defend the exchange rate of the national currency or to change the exchange rate system depending on the compared benefits of these actions and two speculators in the respective currency, who haven't got the necessary resources to exhaust the government reserves though.

The crises in the third generation of financial crises are much more heterogeneous than in the other two cases, being related to the problems generated by the balance sheet exposures and presenting three big options: the impact of the moral hazard on the crediting process, the reciprocal impact of the currency and bank crisis, the implications of the currency depreciation on the balance of payments.

Most of the recent financial crises are crises in the latter generation, which stem inside the financial sector and are related to structural dynamics such as the financial innovation.

The models in the third generation present different mechanisms, all related to incongruencies within the financial balance sheet, incongruencies that can take, according to *Dăianu and Lungu (2008, p. 7)* one of the following shapes: a) the incongruence of maturities, occurs when the differences between the short term debits and liquid assets lead to the inability of the institution to pay its current debts, on the background of the refusal of creditors to extend the crediting contracts and of the unfavorable influence of the increase of interest rates; b) the incongruence in currencies can provoke capital loses when sudden changes of the exchange rates occur; c) the problems related to the structure of capital under the circumstance when a high degree of indebtness exposes the institution to uncertainty and shocks provoked by the adverse reaction of the markets; d) the solvency problems when the institution is incapable of covering its debits with assets; the problem of an inadequate solvency occurs on the background of a low degree of long term liquidity.

3. THE ROLE OF BANKS IN THE PROPAGATION OF FINANCIAL CRISES

Financial crises mainly manifest themselves at the level of financial institutions. These institutions can be banking institutions, insurance companies, investment companies, financial intermediation companies or financial conglomerates. Although financial crises can also be generated within non-financial institutions, the role of banking institutions in the occurrence, transmitting and solving of financial crises is a deciding one.

The important role of banks in the propagation of financial crises is explained through a series of arguments, that is: the difference between the maturity, due-date

of the elements of assets (placements) and liabilities (attracted sources) from the bank balance sheet; the prominent role of banks within the payment systems and especially within compensating ones, in many cases the banks being founding members of the clearing houses; the substantial exposures that the banking institutions have on the interbank, internal and international markets; the banks have become in the past decades important participants on the capital markets, achieving thus a connection bridge between the different components of the financial system.

Banks play a deciding role in the development of financial crises as financial intermediaries who contribute to the efficient transfer of funds from the abundant agent towards the deficit agents. Banks can facilitate the financial crises through the activities performed on the financial markets that can influence the interest rates, the uncertainty on the market and the price of assets, but moreover bank crises can occur that transform financial crises. Bank crises can be defined according to *Allen and Gale (2007)* as being a financial period difficult enough to lead to the erosion of most or of the entire capital in the banking system.

Financial crises are characterized by an accentuated decrease of the prices of assets, the bankruptcy of some major financial and non-financial institutions, dysfunctions on the currency markets, according to *Mishkin (2001)* the factors that can determine the occurrence of a financial crisis can be: 1) deterioration of the balance sheet situation of financial institutions, 2) increase of the interest rate, 3) increase of the uncertainty in economy and 4) deterioration of the balance sheet situation of the non-financial institution because of the volatility of the prices of assets.

Allen and Gale (2001) showed that the occurrence of the crises is not conditioned by the structure of the financial systems, crises can occur in any type of financial system. The occurrence of bank crises depends more on the development level of the financial system or of economy. *Kaminsky and Reinhart (1999)* showed that most times bank crises were preceded by an excessive exposure of banks on the stock and real estate market. According to *Demirgüç-Kunt and Detragiache (1998)* the occurrence of bank crises is facilitated by the financial liberalization process corroborated with an inefficient laws system and with a high degree of corruption.

The key role the low quality of the bank management had in the occurrence of crises was showed by numerous studies. *Dziobek and Pazarbasioglu (1997)* established that the deficiencies in the bank management and control, together with other factors, were causes in all 24 studied systemic bank crises. In another study, concentrated on a sample of 29 insolvable banks *Caprio and Klingebiel (1996)* concluded that responsible for the occurrence of these phenomena is a combination of macro and microeconomic factors. The macroeconomic factors are represented by the recession situation, while, on a microeconomic level, an

important role have the low quality of bank supervision and regulation and bank management deficiencies.

The imbalances on the level of the entire bank system are closely connected to the macroeconomic factors, which can be cyclical (economic recession) or structural (low quality of bank supervision and regulation)).

The macroeconomic instability has permanently constituted an important factor generating systemic bank crises. The existence of stable macroeconomic conditions, mainly the stability of prices, is a mandatory requirement of financial stability, in general and of the banking one, in particular. The expansionist monetary and fiscal policies can determine a sudden increase of the crediting activity and of the price of assets, as well as of the accumulation of debits. Because these policies can not be sustained on the long term, their correction determines the decrease of the economic growth, the decrease of the price of assets, problems with the debt service and, finally, the inability to pay debtors which will have a negative impact on the financial situation of the banking system. The external macroeconomic conditions, such as adverse changes of the exchange rates in relation to the contractual clauses, contribute to the occurrence of bank crises.

The structural evolutions can constitute an additional important factor in explaining bank crises. The existence of a coherent legal system and of a robust supervision structure is a precondition of a stable banking system. The liberalization of the access conditions on the local banking markets determines the intensification of competition and the threatening of the positions of the institutions existing on the market up to that date. Financial innovations can have a negative effect in the circumstance when the quick growth of a new product is not sustained by a thorough knowledge of its management method (the case of derivative financial products).

According to *Rochet (2008, p. 23)* the banking system is functional for as long as banks keep in liquid form or in the form of investments with a high degree of liquidity a part of the attracted deposits in order to be able to handle the withdrawal requests coming from depositors. Precisely for this cause, the banking system is considered fragile. If at some point, from various reasons, all depositors of a bank would request to withdraw their savings, situation known as “bank run”, the bank has to liquidate all its assets, including long term placements, situation that provokes the bankruptcy of that institution.

The causes at the base of the bank run phenomenon are of objective or subjective nature. The former are part of a selection and elimination mechanism of non-competitive institutions. In this case, the withdrawal of deposits is based on information on the doubtful quality of bank assets owed to inefficient investments. The literature in field calls this phenomenon “fundamental run”, because the actions are based on rational comparison elements.

The subjective causes that can determine the occurrence of the bank run phenomenon comprise speculative factors. These factors have a negative impact on the functionality of the bank institution. The speculative run is generated by the “herd phenomenon”, in the sense that if a deponent anticipates that the other deponents will withdraw their savings in mass will withdraw his/her savings even if they own information according to which the bank is solid from a financial point of view.

In order to solve these crises situations with a profound impact in the entire banking system as effectively as possible a series of mechanisms were conceived and implemented, such as the institution of the last instance creditor, the bank deposits insurance system, public interventions through capital infusions or the bank supervision rules (*Rochet 2008, p. 24*).

These mechanisms were conceived to be implemented in order to avoid extreme bank crisis situations, such as systemic crises. Because of the essential role of bank institutions within economy, of the fragile character of the banking activity and of the globalization process with implications on the free movement of capital, the bankruptcy of a bank is seen as an event with an impact with multiple connotations that can give an alarm signal on the solvency of the other banks in the system, being able to finally start a systemic bank crisis.

A systemic crisis may develop either as a result of a macroeconomic shock or as a result of contagion (*Freixas and Rochet, 2008, p. 235*). Systemic bank crises can be generated according to *Dornbusch and Giavazzi (2001)* by three causes that can occur either separately, or combined, in this later situation a “nightmare” scenario resulting. The first possible cause of the systemic crisis is represented by the poor management of the crediting risk, a phenomenon known in the literature as directional crediting. In this case, the financing offered by banks is not founded on profitability and the covering of risks. This situation occurs when banks are used as instruments in the implementation of economic-fiscal policies within the development strategies or when the high level of the interest rates is used as instrument for the increase of the saving degree and, in this case, the active interests are compressed to satisfy preferential debtors.

The second scenario is that in which an operational banking system is affected by strong macroeconomic shocks. If the cost of the financing of banks suddenly increases on the background of the existence of some fixed interest rates for loans, the banks must support the emergence of losses and are forced by the financial de-intermediation process to accept costly financings with short term due dates. If this situation is prolonged in time, banks get to be decapitalized the same effect is produced in the case of the severe and long lasting recession period that affects the quality of the credit portfolio, the spread no longer being able to cover the losses generated by subprime loans. Also, there is the possibility that the banking system is

affected by currency crises. In this situation, the banks' debtors, who have borrowed in other currencies or have commercial contracts denominated in other currencies, suffer massive capital losses because of the currency shock, propagating this phenomenon within banks by decreasing the quality of the credit portfolio. On the other hand, the banks that contracted loans on the interbank markets or external capital loans, without making an adequate hedging for these positions, will be decapitalized because of the impact of the currency crisis.

The third scenario emerges on the background of the banking liberalization measures, measures unsupported through an adequate prudential supervision. The initial image is that of an oligopoly type banking system, protected by the competition both by foreign banks, which have no access on the market, as well as by non-banking financial intermediaries from within the economy. With the started liberalization process, the newcomers, too little regulated in the incipient stages, will offer services for low prices because of the low capital costs. The balance sheet of the banks already existing on the market will deteriorate, the decapitalization of the banks being performed on the background of the immobilization of assets with unattractive interest, of the deterioration of the quality of the portfolio by losing the best clients, of the increase of the financing cost.

The banking liberalization can also produce another scenario when the new banking intermediaries orient their activity towards some market niches neglected up until that moment, such as the mortgage credit. The low crediting cost, the insufficient regulation and the lack of banking experience produce in a first stage an exponential increase of this crediting activity. The soap bubble bursts when the increase rhythm slows down and the subprime loan quota reaches alarming levels. This situation is even more severe under the circumstances when the loans were contracted in other currencies and the devaluing process determines the alarming increase of the debt service.

The contagion models were developed more recently, after the Asian crisis in '97, which proved, more visibly than in the previous cases that, when a country goes through a financial crisis, at the same time and, especially, in the same area other countries as well are affected. In the past decades it was proven that a small amplitude shock can have a significant impact on the financial markets. A initial shock only affects a certain region or a certain sector or even only certain financial institutions and can be propagated, by contagion, through the connections between banks and other financial institutions towards the entire financial system or towards other regions.

The analysis of the contagion effect can be performed based on the direct connections between banks, by studying how the banking system reacts to the impact of a crisis when the banks are integrated in a certain network. In a banking system where the clients have a certain preference for liquidity, banks ensue

themselves against the liquidity shocks with the help of loans on the interbank market. The relationship developed between banks through the swap contracts exposes the entire system in case a liquidity shock occurs at the level of a participant. The weakly developed banking systems are more exposed to the contagion effects than the developed systems because in these developed systems the relationships between banks are more developed and thus a larger percentage of the portfolio losses suffered by a bank are transferred to several banks through the interbank contracts.

An interest theme is represented by the analysis of the impact of the individual risk of a bank on the entire banking system. *Freixas, Parigi and Rochet (2000)* analyzed the case when a bank must handle a liquidity shock and the connection between the banking institutions is performed through interbank credit lines. The impact of such a shock depends on the system's ability to handle a regional liquidity shock. *Allen and Gale (2001)* analyzed the impact of bankruptcy of a bank on the entire banking system and showed that the more developed the interbank connections the less the impact of a bankruptcy on the entire system.

According to *Allen and Carletti (2006)* in the analysis of the role of banks in the contagion of financial crises the financial innovations and the used accounting system must also be considered.

4. A SOLUTION FOR BANKING CRISES

Rojas-Suarez (2004) elaborated three *basic principles* in conceiving a successful program for solving banking crises. The first principle consists of the fact that the society on the whole must exercise a strong political pressure so that the solving of the bank crisis becomes a priority for the authorities, and the solving is made by allocating non-inflationist public resources. The second principle consists of the fact that the parties who obtained substantial benefits from the risky banking activities must pay a large part of the cost of banking restructuring. The third principle is represented by the emergency implementing of the measures through which problem institutions are forbidden to continue granting loans to debtors with a high degree of risk or the capitalization of arrear interests by granting new loans.

Different mechanisms were conceived for the solving of bank crises, measures were implemented having as purpose the decrease of the level of costs and strategies were adopted depending on the type of the bank crisis. From these, the most important ones are: the institution of the last instance creditor, the insurance system of bank deposits and the prudential banking supervision regulations.

The institution of the last instance creditor consists of the support offered by the central bank, in the shape of liquidities, to the affected banking institution. According to *Freixas and Rochet (2008, p. 243)*, who takes the theory formulated by the English economist Walter Bagehot in 1873, in order to have the desired effect

thus mechanism must respect the following principles: a) to grant loans to the institutions confronted with problems only based in some quality warranties, so that only solvable banks have access to this type of loan and the central banks is protected by the possible losses; b) to only grant loans to very high interest rates, so that only truly un-liquid banks will borrow, and the other situations of lack of liquidity, that present no problems, are solved by the market; c) to announce in advance its availability to offer this type of financial support, thus obtaining credibility.

Through the *insurance system of bank deposits*, banks, based on a percentage contribution from the total of the attracted deposits, are insured that in case of the occurrence of the bank run phenomenon, they will reimburse each client with a limit amount established through the statute.

Studies performed by the International Monetary Fund showed that the countries that adopted this bank deposits warranty system are much more exposed to the occurrence of bank crises than the ones that have no such system. The explanation, from this perspective, is that in the presence of such a system banks assume excessive risks more easily knowing that the deposits are insured in cases of bankruptcy.

The strengthening of the *bank supervision*, with an accent on the solvency requirements, emerged as a reaction to the bank crises. They were internationalized by the publishing by the Basel Bank Supervision Committee in 1988 of the minimum capital requirements and of the solvency level of 8%. These regulations were updated and perfected through the new Basel Agreement II. The importance of the level of the degree of solvency is explained by a) the role of equity for supporting the activity and the losses in crises situations and b) through the co-interesting of shareholders to monitor more carefully the bank management in order to avoid large losses caused by bank crises.

The national financial and banking systems present particularities and that is why the reactions to the occurrence of bank crises are different. Nevertheless, the strategies used in the case of crises have common elements and refer to the measures applied for the decrease of the level of costs on economy and tax payers, to the limiting of the impact of future moral hazard.

The solutions applied by the private sector, in the detriment of the public one, are considered to be the most indicated for solving the bank crises. If, in the case of a bank found in state of bankruptcy, the supervision authority imposes to shareholders or creditors to recapitalize the bank, this solution is viable because it allows the institution to function, and to shareholders to get involved in the restructuring of the institution. The case of the takeover of the bank found in crisis by another bank can be seen as a penalty measure for incompetent management.

In practice, there is a wide range of options for solving the bank crises. In one extreme is the keeping of the bank operational by injecting capital from the shareholders and, at the other extreme, the shutting down of the bank by selling assets, compensating deponents and the potential payment of creditors. Between these two extremes, the license of the bank can be suspended, and it is sold, entirely or partially, to another institution to preserve the banking activity. Between these measures the involvement of authorities also varies. The involvement can be limited to encouraging or organizing the private sector or can be extended to offering financial support and, in extreme cases, to nationalization measures.

The first solution in solving a bank crisis is to involve the private sector, for the reasons mentioned above in case that this support can not be obtained, there will be decided between the solution of liquidating the affected bank and involving the authorities. Under exceptional circumstances, when the bank crisis is expected to be a systemic one, the authorities can adopt some intermediary measures such as nationalization or warranty for the bank found in bankruptcy.

Certainly the theories regarding bank crises and financial crises will know extended developments because of the current global financial crisis started in 2007.

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THE FINANCIAL CRISIS - GLOBAL GOVERNANCE FAILURE?

Laura AFRĂSINE*

***Abstract:** The asymmetries created by the non-conventional threats tend to lean the international security toward its human approach. Nevertheless, we now have to deal with the need for international cooperation and with finding complex solution to complex global issues. The international scene can be defined through its need for security and cooperation.*

This paper aims to analyze the international relations in three directions: the relationship between global governance and international security, the impact of the financial crisis on the world and the need for a new global governance architecture as a solution for stability and sustainability.

Considering recent events, we need to find a new paradigm for global governance. The aim of this paper is to put forward the need for global governance reform through government networks. In addition, I consider a heterarchic vision of the new world order.

***Keywords:** global governance, financial crisis, international security.*

***JEL classification:** F02, F55, F59, P16.*

1. INTRODUCTION

The international security environment has changed greatly in the past years. Now, under the pressure of the international financial crisis we have to deal with new risks and threats that can change the security environment for good. That is why the analysis of security governance as well as global governance is crucial at this moment.

The year 2009 is the year in which the whole world will learn the lessons of the crisis. The financial architecture needs reform and future shocks can have unpredictable consequences. All these lead to a diminished fate in international, regional and even local institutions. Practically, the crisis, through its global range, revealed the weakness of global governance and brought new long time risks with it. That is the reason a good governance, a better leadership would lead to restoring faith, to better international cooperation and to greater convergence.

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Therefore, by “attacking” both global governance and the security environment we can solve the rest of the long time risks - like environment, resources related risks , etc. The best choice of the moment is good national, corporate and global governance along with restoring faith in global governance institutions. Moreover, a new global governance paradigm might bail out the international economic scene.

The paper is structured in three main parts as follows. The first part describes some of the theoretical concepts that define global security and global governance as well as the links between them. The ideal global governance is supposed to be based on a number of nonhierarchical principles and is able to offer global public goods (which are supposed to be non-exclusive to be efficient).

The second part analyzes the evolution of the financial crisis and the recent events that tend to shape the international relations in the last months. Apart from economic forecasting, the second part summarizes the main impact of the crisis on commerce, international finance, the risk landscape in 2009 and global governance. The risk of protectionism is separately analyzed as it is considered the risk with the highest probability and the higher impact. Long time and short time risks and threats are also considered here and a possible course of action is given.

Taking into account that any crisis is danger as it is opportunity, the solution given by this paper is on the same line as the economic literature: reform of the global governance system. What is different from other papers is that I do not urge the international society to reform the Security Council or to conclude the Doha round, but to consider a new theoretical approach to global governance: government networks.

If we look at the world as if it were a collection of states, we will states as the atoms of international relations. But, if we take a much closer look, we can see the states the same way we see them on a national basis: as a cumulus of functions and organisms. If we look at one state in the same way when it interacts with other states we can then distinguish between two kinds of relationships: vertical and horizontal. The vertical ones take place between the national institutions and the international, superior ones and the horizontal between the national institutions and homologues from other states. Therefore, we have a world that is a system of state subsystems, an elaborate matrix that works both vertically and horizontally.

I put forward here the need for a new view of the international relations: the heterarchic view. Moreover, I also suggest here a series of ideas for an improved global risk management. All these are accompanied by specific references to Romania and its ability to actively participate in such a global governance system.

2. GLOBAL GOVERNANCE

The concept

Globalization brought along a new form of governance. It became a key term in the study of international political economy and international relations, but the concept of global governance is not yet defined for “unanimous and unifying usage in the study of international relations” (Dumitriu, 2005: 246).

Chris Brown considers that state centered international relations are anarchic because they are being driven by sovereignty. His vision can be summarized as follows: though there is no global government - states would not give up their juridical sovereign status - their need to manage and lead has generated extensive global governance networks. Global governance is actually an archaic term which was initial equivalent to government, but later developed a new meaning: “collective impact of the various disparate quasi-governmental institutions which have proliferated (internally and externally) over the last century or more” (Brown and Ainley, 2005: 116-118).

The idea of a global governance became increasingly popular in the last decade despite the fact that its importance is a variable of the geographic area or the issue discussed. But it is certain that in the last 10 years the concept went from unknown to central theme in the study of international relations. Although the reasons to analyze the global governance phenomenon are obvious, the concept is rarely understood in all its complexity. This is proven by the literature (Wilkinson, 2002). Besides a few exceptions the international relations and the political economy as disciplines have avoided to take into account the complex nature of global governance. All these greatly undermine the existing knowledge and the structures.

Most of the times, global governance is treated as a passing trend, as an oxymoron or is simply avoided. The realists from the political economy and from international relations stay faithful to a world that considers states the most important international actors and do not give too much attention to international organizations or non-state actors. Seen through the lens of *realism, global governance is a distributive function of power at global level or result of good practice, norms, behavioral rules and decision procedures developed in time*. Even scholars belonging to institutionalism who claimed that in certain conditions the international institutions have a high impact on world interaction avoid to accept that there is more than an emerging system of global governance.

When global governance is accepted as a phenomenon of our times the subject tends to be seen only from the perspective of international organizations, the two terms being considered synonyms. Therefore, the literature talks about institutionalization as a process begun in the nineteenth century which tried to establish the authority beyond state borders. Although there are many things to be learned about global governance from studying the way international organizations

develop, such a study does not allow a scholar to have a correct approach of the concept. The global governance and international organizations vary greatly: firstly, global governance comprises of a large variety of international actors, not just visible aspects of world political and economic authority (United Nations, World Trade Organization, International Monetary Fund, World Bank Group etc.), but also intergovernmental forums, even the quasi-formal ones like G-8, World Economic Forum, state groups, organizations (UN's Global Compact, International Labour Organization), private organizations (International Chamber of Commerce), private military forces (Sandline International, Executive Outcomes), nongovernmental organizations, transnational religious groups, terrorist organizations, political movements, financial markets, global law firms, multinational companies etc. Secondly, it is important that the way in which international actors associate to manage a wider and wider panel of political, economic or social issues. From this point of view global governance can be considered a multitude of associative forms between global, regional, national or local partners. Therefore, global governance does not suffice multiplying actors or power organizations, but it is also defined by the way all these interact.

As we can see, most research in global governance have focused either on theoretical explanations of the phenomenon, either on empirical studies of institutions that are part of the global governance networks (Biermann, Pattberg, Asselt and Zelli, 2007: 3). Global governance cannot be plainly defined by the mere existence of actors and power points, but also by the complex patterns of interaction between them.

The principles of global governance

Taking into account that the study of global governance analyzes the relationships between various actors of the international system and that global governance is, in fact, a broad definition of a government (Finkelstein, 1995: 370), we can consider global governance a mechanism that covers various international functions (sometimes overlapping). Consequently, any scholar should ask a natural question: governance for what? Governance to create a viable world order, to create a coherent global system i.e. good global governance. Same as good governance at national levels, global governance is based on a series of principles (Coolsaet and Arnould, 2004: 3). These principles are sustained by the existence of inclusive and multipartite institutions of global governance (Rittberger, 2008: 7).

Ngairé Woods makes the distinction between applying the principles of good governance to international organizations interstate relations (international governance) and applying them to the more complex relations found in global governance (between individuals, people, groups and international organizations). Good governance can mean good leadership. In this particular case, institutions exist to soften the imperfections of the market and to offer a large array of public goods.

There is also a second case of good governance when it links institutions and society together in a governance form i.e. the rules that establish social practices, cast roles and guide interactions (Woods, 1999).

The principles of good governance can be the following (Coolsaet and Arnould, 2004):

1. Global governance is not a world government. It is not about creating stronger institutions. It is about raising coherence, efficiency and legitimacy of the existing ones, about identifying and filling the gaps of multilateral institutions and in the law; good global governance creates institutions only where needed.
2. Must be based on rules and on institutionalized multilateralism. The states are the main actors and they choose to share their sovereignty.
3. Multi-level approach - on all authority levels. Global institutions and mechanisms must not replace similar local, national or regional actions, but complement them. Global integration should be encouraged as a starting point for global governance. The success requires reforms and efforts at all levels: responsibility is not only for the international organizations to bear and must not be used by states to shed responsibility.
4. In order to be legitimate, global governance has to be more participative by allowing international non-state actors to play an important part along with the states. Specialized global governance networks, international organizations, transnational corporations, and civil society are instruments for a larger participation and for creating linkages between all those involved.
5. Global governance must be democratic by providing an equitable representation to all states and non-state actors together with transparency and accountability.
6. The European Union has a special responsibility in global governance and therefore it must play an essential part as it can prefigure governance at global level, especially by its distinctive approach to governance, enabling global mechanisms and actions to blend with those at the regional, national and local level. The EU has furthermore to strengthen its ability to contribute to global governance – especially in the fields of sustainable development, poverty reduction, security and peace – by enhancing its cooperation with the United Nations and by strengthening Europe's voice within the UN system.

Global public goods

Good governance tries to explain the characteristics of a process, but the object of the process is considered less. The theory of global public goods seems to indicate the object of global governance (Dumitriu, 2005). At the same time the capacities needed for providing global public goods (efficiently) is the starting point for finding the actors that must participate actively in global governance to provide these goods. Moreover, positive and negative externalities lead to an inefficient allocation of

resources. An institution that efficiently produces such a good has to internalize all these positive or negative externalities. Only such an organization in which all actors are affected by externalities produces efficient public goods (Rittberger, 2008: 11-12).

People need both private and public goods. UNO has brought up the problem of global public goods. Public goods are, by definition, non-rival and non-exclusive; their global nature drives from the quasi-universality of benefits drawing from their usage (Dumitriu, 2005; Global public goods, 1999). Practically, the whole humanity benefits from them.

In the era of globalization, global public goods are more and more important. Among them we can include international settlements and regimes, but identifying global public goods is a difficult task just using the non-rivalry and non-exclusivity criteria. Some goods are more accessible to certain categories of people, without disregarding the two criteria. Producing and maintaining the goods has the unique attribute of increasing predictability in the international relations as well as reducing the risk of conflict. Transaction costs are reduced and therefore there is a tendency to increase cooperation and efficiency in this area (Dumitriu, 2005: 257).

A classification of global public goods can be the following one (Coolsaet and Arnould, 2004: 11-22) :

- International stability and security - the stability of the international system; the responsible powers have to establish a rule-based regime regarding use of force (all states must refrain), proliferation, terrorism, organized crime;
- An international law order: the existence of an international society depends on the existence of shared values, common laws and rules; the rules and the institutions exist, but the deviations are frequent and that is why a new approach is needed: a growing importance of law and law institutions at national level, human rights monitoring systems, responsibility to protect (R2P), a permanent dialogue between civilizations and cultures;
- An open and inclusive economic system - eliminating inequalities;
- Global welfare similar to national human security systems;
- A shared commitment to resolve regional and internal conflicts.

Global governance and international security

In the 21st century, the lack of autonomy, usually characterizing the third world countries, is being felt by other states, but in different proportions. Greater economic integration and erosion of national control over economic decisions and social policies led to elitist global governance: less and less hands have the power. That is why there is a set of requirements for global governance:

Table 13 *Global governance requirements*

	Material capacity	Knowledge
Legitimacy	Authority	Epistemic validity
Correctness	Good practice	Motivation

Source: Adler and Bernstein, 2005: 301

Security issues, but mostly insecurity ones have always been very important to the international environment. Therefore, it can be said that the study of global governance should begin by directly addressing these issues and not by examining regional cooperation of economic governance.

If those who created the peace projects of the 18th century had the same approach as the theorist who created and re-created the League of Nations in the 1920s and the 1930s (Brown and Ainley, 2005: 133), after 1945, once the “global peace through international law” movement started, the most important collective attempt of the 20th century at changing the international vision on security was the concept of collective security - a system that assumes the commitment of each state for the security of the others. Although this idea has its origins in the universality of the peace projects from the 18th century (all for one and one for all), it was created in order to be operated by states that preserve their decision power when collective security obligation occur, unlike the existence of theoretic institutions in the past centuries. Furthermore, collective security protects a certain status quo, it is a global security system where international institutions do not attempt solving issues but give (or not) their acceptance to those who can do something in order to solve a case. From this point of view, the role of UN is similar to that of papacy in the medieval ages: with the blessing of UN it is alright to act, but that does not mean that without is impossible (Kosovo, Iraq). United Nations remains the single source of legitimacy regarding the use of force in international relations (Brown and Ainley, 2005: 137).

A global system of collective security can function only if is sustained by a solid institutional basis. Until now this was created in the 1945 by the United Nations Organization, with global focus on security. There are other forms that promote global security through groups that belong to the global governance architecture: The Group of Eight (Kirchner, 2007: 14; Kirton, 2002: 191), The Group of Twenty; a higher interaction between regional organizations a simultaneous cooperation of these with the UN.

3. THE INTERNATIONAL FINANCIAL CRISIS

The conclusion of the World Economic Situation and Prospects report (World Economic Situation and Prospects 2009, 2009) is grim: the world economy enters recession, being caught in the worst crisis since the Great Depression⁸². What initially seemed to be a crack in the sub-prime system of the American house market during the summer of 2007 started to be a global process, a collapse of major banking institutions, stock exchange crashes and credit crunch. These financial shocks turned rapidly into a complex economic crisis. Most countries entered recession with a perspective that both developed and developing countries will slow down their growth dramatically, including those with positive economic performances. The GDP growth will slow down considerably according to UN predictions: down to 1% from an average of 2.5% in 2008. Economic growth for transition economies will be slowed down even more, reaching 4.8% in 2009 according to the same source.

Due to the uncertainty in the international system, it is possible that the world will witness a pessimistic scenario. If the credit market will continue to be frozen and the trust in the financial sector is not reestablished than even developed countries can witness a severe recession.

The origins of the crisis

Financial chaos during September and October 2008 revealed the systemic nature of the crisis and strengthened the fears of severe global recession. The problems started from the developed economies, but the frailty of the international financial system is linked to a global pattern of unsustainable growth. Along with financial lack of settlement and the multitude of new financial instruments and risk management techniques it encouraged a massive accumulation of financial instruments sustained by the growing level of debt in the corporate sector, the public sector but also the households. The growth of financial debt reached four to five times the volume it had in the 1980s and lead to accentuated securitization. Removal of the leverage that the fragile economic environment was built on resulted in the collapse of financial institutions and evaporation of global liquidity, thus undermining the real economy (World Economic Situation and Prospects 2009, 2009).

The economic boom came from ignoring risks. The decision makers initially ignored systemic risk and proper evaluation of the extent of the crisis. The approach consisted in liquidity injections into the financial system and saving of important financial institutions, while others went bankrupt. After September 2008 it was

⁸²Recession is considered a milder form of depression (Mankiw, 2007: 4). Recession is defined as a period of at least two consecutive quarters in which the real GDP is decreasing. This definition is not always applicable e. g. during the 2001 recession there were two quarters of negative growth, but were not consecutive (Mankiw, 2007: 253). Recession is usually associated with incomplete usage of capital and labor force (Stiglitz and Walsh, 2005: 561).

obvious that the international economy needed another approach, a more comprehensive and coordinated response at a global level.

The efficient management of the crisis was brought into discussion. This consisted of public funds to recapitalize banks, government guarantees for bank deposits and other equities, fiscal and monetary stimulus in order to prevent turning the crisis into a disaster for humanity. Policies were created to reestablish trust, to de-crunch the credit and monetary markets through recapitalizing banks with public funds and guarantees. In December 2008 a new series of congestions and dysfunctions appeared in the system. The reality is that all those politics need time to be proven efficient, months at least. Usually, financial issues are felt in the real economy with a lag, but not before the major economies face economic contraction and these politics show that their costs are huge for the moment.

Implications for international finance and commerce

There are immediate implications of the financial crisis upon the international financial system and also on international commercial activities. These can be summarized as follows:

- a) commodity prices are more volatile; oil prices decreased with more than 60% from July to November 2008; grain prices also dropped significantly;
- b) international commerce perspectives are grim: growth has been reduced to 4.3% at the beginning of 2008, compared to 6.4% in 2007 especially due to declining US imports; in September 2008 the growth was only 3%, a third compared to the previous year and there are chances that the rates of growth will drop even more (World Economic Situation and Prospects 2009, 2009);
- c) the financial system in developing countries is somehow insulated by limited exposure to mortgage derivatives, but risk in these countries is caused by the withdrawal of foreign investors as part of the leverage process applied to financial institutions in developed countries; low external financing along with a contraction of the credit market can be catastrophic for these economies;
- d) exchange rate volatility raised: the dollar depreciated in the first half of 2008 compared to the other currencies, especially compared to the euro, but this evolution was quickly reversed, being even faster; consequently, the currencies of commodity exporters depreciated substantially compared to the dollar in the last half of 2008, but there the fear that the power of the dollar will be short lived is stronger than ever.

Short run economic risks

The collapse of security prices is just the beginning of a chain of events. This chain exposed the systemic vulnerabilities and triggered new risks (2009: 9):

- a) deterioration of fiscal positions: USA, Great Britain, France, Italy, Spain, Austria have considerable deficits, and government spending for aiding financial institutions and for sustaining economic growth will worsen the already unstable fiscal positions of these countries; moreover, the increasing costs associated with health and pensions will generate further pressure on their governments;
- b) a significant decrease of the Chinese economy. The risk of hard landing is high and such a procedure would weaken the financial system and will create social tensions in China. The Chinese government has reserves of over \$2,000 in order to prevent renminbi appreciation; the currency appreciated in the first half of 2008, but stabilized afterwards due to the powerful dollar. If the strength of the dollar is temporary, then the renminbi will appreciate uncontrollably;
- c) decreasing equity prices: the markets fall by more than 50%. This lead to a vicious circle: a drop in prices followed by a sharp decrease in value, capital positions pressure and loosening of the leverage effect all together resulted in a contraction of economic activity and to credit loss;
- d) inflation is replaced by deflation: the uncertainty of the financial sector, decreasing equity prices, credit market situation, weak demand, growing unemployment resulted in a deflationary circle; the risk of deflation can be considered only on short run because in the long run the world is facing inflationary risks caused by monetary stimulus and growing public debt.

All the above risks underline the need for long run policies which will be able to neutralize the risk of low infrastructure investment or that of climate changes. These risks seem unimportant in the short run, but, on the long run must be considered as carefully as the consequences of government intervention and settlements: failure reward, inefficient companies and industries aid or unequal access to government funding. In the end the consumers are the only ones who suffer from all these. If there are government interventions they should have a clear exit strategy defined by limited duration and well-established rules for funding certain sectors of the economy.

Therefore, risk management is not only about identifying and understanding the individual risks, but about considering the relationships between all risk categories and even the least plausible scenarios. Without a doubt the financial crisis is a global phenomenon and it proved the gaps and the limits of the international financial architecture. A good international management should be based on at least a few elements of international coordination:

- A. an efficient early warning system;
- B. a more efficient framework for international solutions;
- C. international coordination of decision makers; even a supervising committee is acceptable; its role should be that of systemically monitoring the most important financial institutions and companies (Rogers, 2008).

Global governance - solution for stability and sustainability

The financial crisis revealed the defects of global governance. The G-8 and G-20 summits were in fact discussion round tables to find collaborative solutions for the crisis. Meanwhile, while the governments deal with the financial turmoil, there are other risks (climate changes, food security, poverty reduction, failed and unstable states, etc.) that are not being considered properly according to their long run importance.

The gaps of global governance become more and more obvious. Global security or economic institutions functioning at this moment were created in the period following the Second World War their mandate and their resources are no longer valid today. Economic, demographic changes were not reflected in the governance of such institutions or in their decision making structures. The exchange of roles between public and private sectors was not considered either. Global risks do not limit themselves to borders and therefore they ask for global solutions that are beyond the power of any government. Consequently, the existing global governance architecture cannot operate simultaneously with governments, the private sector and civil society.

The analysts of the World Economic Forum consider that all these issues should be dealt with following these steps (Global Risks 2009, 2009):

- a) a greater commitment and a new leadership for global issues;
- b) a debate framework and shared responsibility;
- c) combining public and decision makers authority in order to stimulate innovative processes;
- d) reforming existing institutions (especially the Security Council);
- e) new mechanisms for resource problems.

The extent of the crisis and global recession revealed another issue: the tendency of retrenchment from globalization for both developed and developing countries. The tendency is greater for the latter category due to the pressure put on their economies. I consider that the globalization is not a reversible process, but protectionism as a form of insulation or the refusal to cooperate on issues like climate change, resources or international security put the international scene in danger and develop new risks and threats.

We may be dealing with a return of the nation state (Friedman, 2008) as every country acts for itself in a new security environment because there is no possibility for collective action through the existing global governance. Such a behavior must be preempted by solving global governance issues even if the moment might seem inappropriate. Even before the crisis unfolded the developing economies had a hard time accepting the trade-off between economic growth and environmental costs. Now, when economic growth tends to turn negative, the risk is even higher. Only internationally coordinated efforts that are backed by local initiatives will be able to

solve long run risks efficiently without disregarding the environment, the resources or the geopolitical tensions.

4. SUGGESTIONS AND CONCLUSIONS

Improving global governance to answer risks better

Reform of global governance is an idea that is used and abused in the relevant literature, especially in the last years. At this moment, considering the financial crisis the main risk for the international security scene (on the short and long run), there is an acute need to reform the paradigm of global governance. This step must be made quickly and efficiently in order to answer the needs of the international relations of the 21st century.

Among the requirements of good global governance we found, *inter alia*, efficiency, transparency, democracy and all the other principles of a good governance regime as presented earlier. Such a reform should be sustained by consistent actions at global level, but we must consider that the international legal system is still focused on the nation state. Furthermore, the paradigm of international cooperation is still the multilateral international treaty (Slaughter, 2004: 12) as a document that requires extensive negotiating that usually takes years. Considering that his approach is still standing despite the changes suffered by the international system lately, I will analyze a possible evolution of global governance that might surpass this misdemeanor without much effort.

The states implicated in international or regional cooperation processes must speak with only one voice, while being represented either by the chief of state, either by the foreign affairs minister. All differences and divergences within the state are being solved internally, not internationally. But we can have a different approach: if on a national level executive or legislative actions are being considered before seeing the state as an indivisible particle we can do the same thing at an international level and see the state as a complex collection of mechanisms. At this point the literature tends to consider global governance a black box where all kinds of processes are being done, but that cannot be divided into small pieces following the model we use to analyze the state at a national level (Afrăsine, 2009). That is why the international environment needs a change of attitude.

Looking at the international scene as a whole through the perspective of nation states we will end up seeing international relations as driven by traditional international organizations or other institutions created and formed by formal delegations of nation states. Oppositely, if one sees the states as international actors, but as dividable ones a new international landscape appears.

In this context, I consider that new forms of global governance appear. The most important ones are the government networks or the trans-governmental networks

as they were initially referred (Krahmann, 2005a; Krahmann, 2005b; Raustiala, 2002; Slaughter, 2004; Webber, Croft, Howorth, Terriff and Krahmann, 2003). There are two types of governance networks: vertical and horizontal. The horizontal ones deal with interactions between government institutions and the similar ones from other nation states, while the vertical ones deal with the relationships between specialized national institutions and their supranational equivalents, the international organizations that have a similar profile. Consequently, the international system appears as a complex matrix comprising vertical and horizontal international relations.

The international relations system takes the form of a matrix where every point can represent either a national institution, either an international organization, either a group of the civil society, etc. Every element of the matrix interacts with each other both vertically and horizontally and forms a complex interacting system.

Government networks are not a new phenomenon. Specialized international organizations like Universal Postal Union (1848), Food and Agriculture Organization (1945), World Health Organization (1948) were, from the beginning, cooperation forums for national decision makers, but also the object of many studies. What is new about government networks is their proliferation, their amplitude, target and the power they have.

Robert Keohane and Joseph Nye discussed in 1974 a first form a governance networks (Eilstrup-Sangiovanni, 2007). They distinguished between three modes of international cooperation: inter-state or inter-governmental, trans-governmental and transnational. Inter-governmental relations were referring to diplomatic interactions between sovereign states; trans-governmental cooperation was comprised of direct interactions between sub-units of various governments, and the transnational one was the cooperation lead by non-state actors, independently of the states. Trans-governmental networks discussed by Keohane and Nye were part of what we understand today by government networks. The latter involve the vertical and horizontal cooperation that leads to a matrix-form view of international relations.

The differences between inter-governmental and government networks cooperation goes beyond dichotomies like formal/informal or hard/soft. Basically, the differences refer to membership, structure, formality, relationships between components and decision making or implementation as they can be seen in Table 14.

Table 14 *Main characteristics of intergovernmental relations and government networks*

Characteristic	Intergovernmental	Government network
Membership	unitary states	agents or state officials
Structure	centralized/hierarchic	decentralized
Political visibility	high	low
Law	high	low
Compulsiveness	high	low
Irreversibility	high	low

Characteristic	Intergovernmental	Government network
Relationship between components	rule-based	trust-based
Scope	wide	narrow
Decision making	qualified majority or consensus	consensus
Support for implementation and compliance	high	low

Source: adapted after Eilstrup-Sangiovanni, 2007

As of now there are many security issues (terrorism, proliferation) that are being solved directly by various sub-state agencies that complement intergovernmental relations. These networks include armies, intelligence agencies, foreign affairs officials and militias (Krahmann, 2003; Webber et al., 2003). In other words, there is a precedent for including government networks in the area of high politics.

The world order should ideally be a global governance system that institutionalizes cooperation and prevents conflicts well enough to allow nations and citizens benefit from peace, prosperity, acceptable living standards, etc.

In a matrix as the one described the complex relations inside it must favor a settlement export from strong to weak states. Practically, convergence can lead to better results than an international system or an international regime where the authority, legitimacy and sovereignty are always questioned. The international institutions are a secure source for the import or rules. There will be differences imposed by different culture, different history, politics or path dependency, but in such a matrix we will deal with an informed refuse to comply (ideally). This is why it can be said that the need for convergence might lead, in some cases, to informed divergence. Consequently, better governance will lead to higher convergence, meaning the wider cooperation inside the matrix.

The essence of government networks appears to be a greater decentralization which accompanied by a rigorous good governance principles leads to an increase of international cooperation. Moreover, if the international relations are seen as a global governance matrix, then the settlements might be seen in a similar manner: matrices/settlement networks that overlap the initial matrix.

The credibility of each member that adopts decisions will grow because every single actor guards its reputation inside the network and can do so only if adheres to norms. If we compare the element-matrix relation with the agent-principal relation, then no single agent can raise the credibility of the principal. The other members know when one member has not fulfilled its obligations and can decide to exclude him from future actions. The network confers even a certain status for each member. The membership is obtained on a selective basis, increasing the convergence even before integration. This principle should be applied more often in global governance. For

example, The European Union proves to be a model of global governance because it effectively applies these principles.

Therefore, general decisions are better because they are complex decisions for complex problems:

- a) are based on more information on individual preferences and on their consequences;
- b) the decision process must be based on brainstorming and only those solutions that serve general interest should be considered;
- c) members should be encouraged to accept solution based on individual analysis;
- d) analyzing decisions makes them legitimate and leads to greater commitment and social awareness.

Risks and crisis have a positive impact by the opportunities that they offer and that is why global governance should focus on the positive conflict. Good international relations are based on good reputation, trust, reciprocity and interdependency. Robert Keohane notices that a positive conflict is a corollary of all these: good reputation, trust and reciprocity favors cooperation and positive solutions for any conflict (Slaughter, 2004: 211). This approach might be a solution for informal groups from global governance, like the G-8. The more they engage government networks in their activity, the more they gain legitimacy and become more efficient.

For networked global governance there must be certain conditions (Eilstrup-Sangiovanni, 2007; Rittberger, 2008):

- small groups with common preferences - less need for arbitrage and sanctions;
- necessity and time horizon - government networks work better when there is no time limit and the needs are in the long run;
- uncertainty - gives real chance to networks;
- national politics - government prefers networks when its national politics is different from the others in the group;
- exclusive clubs and lack of free riders.
- inclusive international institutions formed of both private and public actors.

If some scholars believe that at this moment the international relations are ruled by anarchy, they can be seen as ruled by heterarchy (Rittberger, 2008). This vision on international relations works well with the government networks presented earlier. A heterarchic world order is based on the actions of a large variety of public and private actors which are, formally, independent, but inter-dependent. This idea of heterarchy is the natural next step from non-polarity, a condition the world is in. world governance in heterarchic terms does not assume that there should be a world government or a global state or a hegemonic power or an empire. It is based on reciprocity of rules and crisis management as the power is held by many hands. The consequences of such a world order can be summarized by greater inter-dependencies, accelerated institutionalization and conflict decrease.

Risk management

The solutions for a better approach regarding risk management at international levels are greater involvement of civil society, knowledge, consideration of risk consequences and greater civic responsibility. What better risk management needs is better global governance. Therefore, although the financial crisis seems to be a danger for the international system it is as much an opportunity to reform global governance and manage future risks better.

Because the best response to risk proliferation is better cooperation, and better cooperation at international levels can be realized by efficient global governance, I proposed a new paradigm for global governance and world order: the government networks. These have many advantages but also disadvantage:

Table 15 *Advantages and disadvantages of government networks*

Advantages	Disadvantages
Efficient and quick communication	Slow and difficult decision making
Low costs for implementation and compliance	Low credibility and patched implementation
Scalable	Limited goal
Adaptability	High negotiation costs due to frequent renegotiations

The power ratio on the international scene is shadowed by the greater number of asymmetric and emerging threats, risks and vulnerabilities. Will a new global architecture solve the complicated issue of power asymmetries? Powerful states will continue to have unequal relations with international institutions and the vertical relationships in government networks will favor imposing on the less powerful states.

In conclusion, we need new global governance and any new vision should be debated and analyzed in the context of an ever greater capacity for strategic analysis at national and international level. We can be part of it as Romania should start by creating new political elite, a strategic analysis capability and by developing the strands of civil society.

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VIEWPOINT

THE WORLD AFTER THE CRISIS

Tiberiu BRĂILEAN

***Abstract:** World economy crisis will outlast. It has not reached the bottom and no efficient policy solution could be seen yet. It is a crisis of global and virtual economy. It is more than a stage of the Kondratiev cycle, it is a structural crisis that tends to turn into a systemic one. But what will the world look like after it? Important changes will come out, changes that the world has not imagined till recently: market fundamentalism will decrease and state capitalism will become the dominant system; financial background will change, financial sector will be reduced and regulated, both nationally and internationally; despite the decrease of global demand, energy, food and commodities cost will rise; a greater but still insufficient attention will be given to the environmental issues; protectionism of all forms will increase; poverty will become endemic in many parts of the world, globalization will persist, as Earth is no longer flat; a technological tsunami is being born in front of us; we will be witnessing the emergence of the feminine principle. Change will become common everywhere, but first of all, we need to embody the change we want for the world.*

As it could be observed today, the world economy crisis will last for another three to four years. It has not reached the precipice bottom yet and no efficient policy of solving it out could be seen. This crisis is due to the global nature of economy. Economy is globalized, the great capital fixes the law (the system possesses financial assets 15 times higher than the global GDP) and no true reform of the international institutions, no foundation of new ones has been done, and casino economy rules have not been changed by imposing more severe regulations. It is equally a virtual economy crisis which excessively relied on dummy money and accumulation of deficit (in the USA, the total of domestic, private and state debts is 3 times higher than the GDP and 2 times higher than that of 1929), on credits with uncertain mortgages and speculative behaviour. It is more than a Kondratiev cycle stage, it is a structural crisis that tends to turn into a systemic one.

What will the world look like after this crisis? Important changes will happen, never imagined before until recently :

1) Market **fundamentalism decreases and state capitalism will become dominant**, still based on a mixed economy, but where public sector share and state

regulation functions will increase significantly. There will be nationalizations, but governments will become more professional, employing better paid bureaucrats. For that matter, the public sector jobs will be more attractive due to stability. The bureaucracy and corruption will intensify, politicians' hands growing clammy, mostly because businessmen will prefer working with the state. Public education will also benefit from some favors, especially in those countries where governments will give a more important role to education and research. In other words, education will become a priority and will be even more personalized, will become continuous, which means a quality leap even if it will originally emerge in public schools through private initiatives. The technology thus needed exists and the process has already begun in countries like Sweden or Singapore. Computers are flexible and patient, we only need to keep up with them. The alternative for state capitalism will be the market socialism. Though initially every country drew back home and attempted to save itself through national policies, inevitably diverse, I think that global nature of crisis will be better assumed and there will be several attempts of tuning in the economic policies, at least on G-20 and regional blocks level; their importance will visibly increase and they will share future competition. This competition will be generic: we no longer know our opponents, no longer compete with products and services, but we fight for banks', investors', clients' money. The USA will remain the world's most important economic power. Why so? First, it is due to the high speed of innovation. America is more of an idea than a country. Information will become the main source of power.

2) **Financial background will change, financial sector will diminish and will be more regulated, both nationally and internationally.** Hundreds of billions of dollars were lost so that trust in financial products, especially in derivatives of all sorts (genuine „mass destruction weapons”, according to Warren Buffet), will plummet. It is hard to believe that the American dollar may be replaced in his role as a reserve currency, as some predict it, neither by the Euro, nor by the Yuan, Ruble, Islamic dinar, DST or fidelity scores offered by cell phone companies. Government subsidies will become a favoured instrument, industry will become as subsidized as agriculture and assistential models will come back into power. In China, for instance, social security programs will increase, in a passage from a growth based on investments to one based on consumption. Many underground activities will come to be revealed. Compulsory minimal reserves will be restored as a currency policy instrument and be inflicted not only onto banks, but to all financial institutions. Audit companies and *rating* agencies will grow more professional. Main financial centres which used to be highly addicted to financial sector profits, firstly New York and London, but also Frankfurt, will suffer from it. To compensate losses, they will increase property taxes and reduce services so that they will be abandoned by many lucrative upper and middle-class members. Degradation will

thus intensify. Political and commercial capitals such as Paris and Tokio will better adjust to the new system. We will live in a world of metropolis. Sovereign investment funds will become richer than many countries. They have already modified the paradigm on Wall Street. However, a system privatizing massive profits and nationalizing even more substantial losses will no longer be tolerated. Fewer credit-dependent business models will develop which will emphasize the economic slowdown, the increase in unemployment and which will also impact negatively trade. Half of the investment consultancy companies will disappear along with the hedging funds. Self-inflicted wounds of the financial industry resemble those of produced after the great war. Large financings will be limited thus aggravating contracting economic activity and fortunes. We must learn how to live in a smaller but more modest financial world, and hopefully more intelligent.

3) **Despite the decrease in world demand, energy, food and commodities costs will rise.** In exchange, end-user goods will become relatively cheap. We will witness a cheap products *tsunami*. Farmers will thus hit back at citizens. Countries favoured by nature will mostly benefit from these tendencies, as they possess unreplaceable resources. Pressure into closing coal and even nuclear power plants will grow due to the risks they imply. Energy and agriculture will become unseparable. The solution is to diversify resources one of the main beneficiaries being the biofuels market. The largest producers are Brasil, USA and China. Among the unrenovable energies will also find wind and sun. Electric cars, hibryd cars, hydrogen cars, the use of bicycles will expand, but oil will remain the main resource. Oil resources will exhaust in 40 years, natural gas resources in 60 years, coal in over 200 years. In the near future educating consumers will become become of an utmost importance for saving, considering that by 2030 Europe will be importing 70% of the needed energy.

4) **Greater attention, but still insufficient, will be paid to environmental issues.** Climate warming and polar melting, weakening of earth magnetism and magnetic poles shifting will cause devastating natural disasters and cataclysms, extinction of many animal and vegetal species, phenomena that will force international governments and institutions to severely regulate the field evenif recession reduces temporarily emission of toxical gas in the atmosphere. China and the USA will continue to be the main polluters, breathing in Beijing will become difficult. For many parts of the world, a real concern will be ensuring with drinking water. Out of the water quantities available, 70% goes to agriculture, but ground waters fall down a few meters every year in many regions. Such difficulties are already encountered in Spain and in the USA, in the Middle East, Northern Africa, Pakistan, India, China and arabic countries and other countries (Southern Coreea, China) are massively purchasing fields in southern Africa, Asia and Russia only for the ground water.

5) **Protectionism of all forms will increase**, which will critically lead to world fragmentation, or to what some call „a new medievalism”. Everyone will lose due to the crisis, some more, some less. As paradoxical as it may seem, the USA (which pioneered protectionist measures) will count among the last. It really seems paradoxical but it is much easier for a country in cronic commercial shortfall to restore its export than it is for a country like China with an export oriented economy to change direction towards consumption and social security . Then America is the only world superpower, that is both industrial and agricultural, not to mention the services, and commercial, energetic, military and symbolic. They will benefit from foreign money, talent and work bailout. Subsequently, the USA will remain the most attractive destination for huge investments. Demographically speaking, America is again better situated than Russia, Europe and Japan. According to Bismarck, God favours fools, drunkards and the USA. Might the good fortune of this invented country that used to work like a pyramid-shaped game have come to an end? Winston Churchill said that „you can always count on Americans to do the right thing - after they have tried everything else”.

6) **Poverty will become endemic in many parts of the world**, especially in Africa where there will be issues concerning not only food but mainly drinking water (35% of mankind lacks water). Over two thirds of the African states are thought to be „stranded”, according to a *Foreign Policy* magazine ranking of july-august 2009. More than half of world’s population will be sick. Every year, over fifteen million people, mostly children, already die of hunger. We cannot but think of the huge difference between the hundreds of billions of dollars quickly pumped into the bank system and the mere tens of billions that the FAO and the NGO-s fail to unlock to eradicate world hunger. There are means, but there is no will. This will lead to massive migrations, which will put into difficulty the relatively wealthy neighbouring zones. In parallel, tourism will consistantly drop, as well as study and professional mobilities. Our entire life style will change.

7) **Globalization will boom, even though the Earth is no longer flat**. Some of its components, such as the development of technology or communication could not be stopped. Everything is interactive. This crisis is in itself a proof that we live in one single world and that it can help many of us become aware of it, though the United States, in their effort to repair the errors of corporate managers aquire more power and we may think they take us back to the past. I can only remember one aspect of medievalism that some analysts predicted: there will be state-cities with more wealth and influence than many countries. State fragmentation from within and the increasing regionalisation by imposing 5 or 6 continental blocks have already become a reality. Homogeneity will combine with heterogeneity. Although continental blocks concentrate around great powers, they will be ruled by cities not countries. Today, 40 region-cities are responsible for two thirds of world economy

and for 90% of the innovations. Do not be surprised to find out soon that all continents have free trade zones, from Hamburg to Dubai and from Barcelona to Hong-Kong. Parastatal military organizations will become some of the most nimble geopolitical players of the new era. Many multinational corporations will remain on the list of world's largest economic entities, and their commercial diplomacy will become visible. Nevertheless, the phenomenon of the „reversed tail” will emerge: companies and not clients will stay in line. He who falls asleep loses. The following keywords will dominate the world: diversity, decentralization, cooperation, transparency, flexibility and dynamism.

8) Bing too focused on the financial crisis, we might miss **a new tsunami shaping up in front of our eyes, the technological one**. This because, despite the crisis, technology keeps on blossoming. It is not only about the new metamorphoses of the mobile phone which will become a sort of universal *gadget*, nor about the e-books that will partially replace the real ones. This time it is not even about financial engineering, but simply about human engineering. Three projects are about to be launched: tissue programming, cell modification and superintelligent robots. He who keeps track of these technological evolutions will acquire much power. We can program life, conceive a new genetic code, manipulate a cell and program any function. We can turn cells into new programmable entities. We can use bacteria to produce fuels, medicine, chemical substances, textiles or organics. This *software* creates its own *hardware*. It can create arms, windpipes, hearts and bladders, most of human body parts. We can create robots that supervise, communicate or carry up to 160 kilos weights on broken ground. Soon robots solely controlled through brain commands will be everywhere. In a few years, the power of machines will double and that of their costs will halve. All fields will be influenced by new technologies. Cloning is reality. Soon, every newborn will be implanted a chip containing identification data, some first aid hormones and an emission-reception device for orientation. Life code and robotics might be the most powerful instruments ever owned by the mankind. Whoever adapts to these technologies will become or stay powerful and rich, individually, regionally or nationally. Investing in technology, in life science will be more competitive than any other field. Once we master life science we evolve, becoming creatures that can program their own evolution as well as that of other species. Virtual reality will become richer. Man will become a wheel in a virtual gear more perfect than ever. Dreams will also become digital, but this can constitute the last technological *tsunami*, as these instruments can harm and be used as weapons. Their impact would be devastating.

9) **We will witness the emergence of the feminine principle**, of the feminization of all human activities, from politics to business, from sports to religion. *EVAolution* will span the planet. Women will become the most remarkable economic and executive power, as Noica predicted: a new matriarchy. Macho style

has died together with the decline of the financial capitalism, hypermasculine, ever risk-seeker model. This silent but monumental transfer, this power reversal between genders is connected to the above mentioned discoveries of genetics but also to the biological strength and to women's ability to adapt; their life expectancy is significantly higher than that of men. As we are supposed to use brains more than muscles, a real brain battle will follow (*Softotal*). Economic welfare depends on employing all the members of society. In the meantime, the number of single people will grow. Emotional and not rational aspects will have priority. As a consequence many offers will appear as nonsense to some. Human brain is interconnected through emotions to the limbic system that governs feelings, and is more powerful than the neocortex where logic and reason reside. There will arise real emotional factories that will develop the most *funky businesses* and they will be global. It will be an era of entertainment. *Business* will actually mean *Show business*. As common American would put it: „Shopping and sex is all that's left”.

10) **Other evolutions.** Tomorrow will not differ much from today. Things have a certain stagnation. The map of dangers for instance will be more or less the same though power is in a process of fragmentation, demography and technology will not revolutionize, climate changes slowly etc. People will learn how to do away with little, will seek happiness in simpler and more human aspects. They will become more religious, less mercantile and less interested in consumption. They will rather look for food for their souls as spiritual emptiness will spread. Life meaning loses ground in favor of fodder meaning. World Hilton-izes. There will nevertheless happen surprises: unexpected conflicts, religious clashes, vivid debates over environment, scientific discoveries. Human intelligence and imagination will continually expand due to environmental challenges but also due to the neurological achievements. Internet will be more annoying, churches and cult centres will generally flourish, children will be more thrifty, literature will deal with new and interesting topics, the age of retirement will lengthen etc. Network will be the dominant type of organizing a business. Society will become fuzzier, more tribalized. Many issues will turn chaotic as we are fated to freedom. Change will be common everywhere, but first we need to embody the change we want for the world.

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THE FACTS BEHIND USA'S PULL-OUT OF RECESSION IN 1929-1933

F.D. ROOSEVELT'S NEW DEAL: AN IN-DEPTH SET OF ACTIONS IN A COMPREHENSIVE IDEA

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*„It's not about getting up early in the morning;
It's all about getting there on time”
Anonymous*

...1929 - 1933. US Economy is world's economy. Those were the days of a whole world into collapse, described by a general economic decline, by a chain of bankruptcies, millions more job losses every year, poverty at highest rates in history, all over the world, hungry people, children with serious developmental disabilities and health issues, poor living conditions, ravaging diseases, hopelessness and despair. The economic crisis had started the 24th of October 1929 a black Thursday, as they call it, the 24th of October 1929 and spread all over the world like a devastating plague. Nonetheless, the world had pulled out of this terrible economic disaster which seemed to question every social or economic success achieved to that moment, although the first to recover were still the US. So what had actually happened? Who pulled what strings to get America out of the economic crisis? What were the ideas, the thinking behind it all? What was the policy and what were the major goals to be achieved? What was the general understanding of the phenomena and what was there to be finally understood, in the end? The answers are even more important now, since we are going through a similar historical period, of major economic decline, with global negative impact and proportions.

Before we get to the answers, we must mention a name which had represented that period and still does. It is not like any other name, it is the name of the person who found a way out of the Economic Crisis; who knew how to work with the best researchers and professionals in the field, take the best directives, talk to people about those measures that he took and, most of all, to understand the people who's

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leader he was. His name was F.D.Roosevelt, the american politician who, in 1933, won the American Elections for Presidency, before Herbert Clark Hoover, whose name had already been unfortunately associated, in people's mind, with the horrible preceding economic disaster of 1929-1933, which shook the world off the floor, not only th USA, and spread its disastrous effects for several years after.

1...History often sends us back to that period of time between Napoleon's escape from Elba and his defeat at waterloo, also known as „the 100 days of Napopleon”. Those were the last days of a famous strategic leader. But when the economic crisis hit the world, this phrase turned into the „100 days of Roosevelt”. This new phrase, fits very well the period of time in which Roosevelt launched his new strategy, his „New Deal”. The difference is that, while with Napoleon, there is a negative note to this famous phrase, in Roosevelt's case, it all turned out to be positive, a step forward towards a new beginning. So what is it all about?

The 4th of March: Roosevelt had started his presidency. At that moment, there were 12 million unemployed, about 25% of US active population. There was no such thing as social security. The industrial sector was down. Agriculture didn't seem to get better since most of the farmers who got involved in commercial activities would rather lose than gain profit; and the rest didn't sell anything at all. Most of the banks were close to bankrupcy while their clients were hopelessly trying to recover their money from their deposits. A terrible storm had swept over the entire American country and Europe.

The french professor Pascal Ory wrote that 1932 was, no doubt, a horrible year – the „annus horribilis” - as he calls it. There was allot of doubt sneaking into people's hearts and the media was raising questions such as: Is US economy going through a revolution? For how long would everybody endure the existing conditions, hoping for better days to come when the economy would recover? It must have been very hard for the newly elected president, to talk to people about the New Deal, about his new approach to US economy, so on and so forth. His promise must have sounded quite vague, middle oriented. As some people used to say, „his projects and vision seemed to be quite moderate, but not too moderate, in the sense that these ideas were not exageratedly moderate, nor did they seem fake”. What was his vision about? It was about turning back to a balanced budgetary plan, preventing useless expenditure, ensuring a sound social justice, a better use of natural resources, consumer protection and a strict, almost excessive control over the stock exchange. As P.Ory wrote, his New Deal had contradictions and vague affirmations, but it had a core meaning: „The country is in a great need, as Roosevelt said, and if I can't at least understand how it feels, I must do something; the country needs a revolutionary and permanent change. Common sense urges us to act. If it won't work, we must face it and choose another method. In any case, we have to do something”.

Seldom can we find through the history a more straightforward expression of what has to be done, admitting the weaknesses and the need to sort things out and move forward. Roosevelt was often described as the „the active, pragmatic and strong-willed man who came to the White House”.

Shortly after being elected, during his first 100 days, Roosevelt would turn around and shake the law-makers, the pressure-raising groups, the entire status-quo. A lot of laws started to be emitted: this didn't seem to make sense, not in the context of a very well thought action plan, with specific, innovative goals. It was, nonetheless, something about that chain of changes, which would gradually evolve into a dramatic historical process which opposed the economic crisis. If we would analyze every action authored and directed by Roosevelt, we could easily see nothing was new: everything had been already discussed years before his election. But nobody made anything out of these ideas, nobody managed to use them. What Roosevelt did, was that he understood that „new” is a relative denomination. All he has to do is pin it down to reality.

The main focus of Roosevelt's New Deal were the banks. Roosevelt noticed that if banks didn't stop the credit crunch, if the bankers didn't start trusting their creditors again, nothing positive will come out of it. Roosevelt encouraged the state to get involved in this situation, by helping the bankers regain their trust and partially insuring the credits obtained by their creditors. To encourage competition in agriculture, which had already crashed since 1929, the state controlled the production of specific products.

To prevent further job losses, the state had encouraged the southern states to develop and had ensured electricity in the areas that had problems before. This led to the development of new industrial areas. Agriculture started to flourish again, while insuring water supply was one of the main objectives in this field. Roosevelt had successfully started the so called „federal plan”, through the Tennessee Valley Authority (TVA), which became representative from this point of view. Roosevelt had also been blamed for it and named a „federal socialist”, but little did he care about these trivial accusations, as long as things started to move in the right direction. His plan was based on real economic issues of the country, from which he had started in the first place, not viceversa.

Relaunching industry? That was quintessential: both the President and the Congress had specifically requested the business owners to leave aside their own interest and any unfair, ill-intentioned move and „get along with each other”, for the sake of a higher, more meaningful goal. Actual sets of law, regarding unfair competition, had been elaborated for each segment of the industry and had been especially targeted to avoid price-based competition.

Added to that, the syndicates were actively supported and encouraged. The syndicates had their voice heard and people listened.

In other words, as Andre Kaspi wrote, Roosevelt found a shock treatment to the existing endemic, ravaging unemployment, even if, specific measures seemed to be quite feeble. In time, the added effect of those measures became more and more obvious. The president seemed to actually understand that a key factor to finding a way out of the crisis was to stop unemployment rates from going up. That would be a natural thing to do after years in which the economic crisis made people lose their jobs.

Roosevelt's New Deal was something the US hadn't seen before. This New Deal became the trademark of whatever Roosevelt was supposed to do from that moment on.

Roosevelt had, in the first place, amazing communication skills. He just knew how to talk to his people in a simple, persuasive way. Added to that, Roosevelt had perfectly understood the power of mass communication, and he knew how to use the power of broadcasting his ideas to people all over the nation. Eight days after being elected, the President explained in front of the microphone, what were the main points of his "New Deal" and how it would affect the American Banking system.

The president didn't usually talk to people in specific days or for any specific occasions. There were special occasions, but for Roosevelt, those were exceptional. All the broadcasted radio talk that Roosevelt gave were in formal, more like confessions to the public, which helped him gain people's trust and make them more tolerant to what he wanted to do. He was trying to inform, persuade and win people on his side, even if at times what he asked them to accept was difficult. Roosevelt would talk to journalists twice a week. There was no formal setting for that. Any topic could be discussed, even those topics he specifically asked not to be made public. All that happened in a time when Hitler and Mussolini were trying to repress democratic practices. In the US, Roosevelt was the one who fully made use of these democratic practices.

Nonetheless, his good intentions were not enough to make things right. By the end of 1933 the American dollar was still 40% below than in 1929 and 1930. Protectionist practices, although generally approved of, didn't always lead to the right solution, on the contrary, it made things even more complicated. A lot of care was required in that direction. People expected the President to protect US interests, but was he supposed to do that within the US borders or in the larger, international context, which was even more controversial, devious and full of unexpected maneuvers, to which one had to respond in the same manner.

It was obvious, during the first year of his Presidency, the economic situation had improved, as compared to the year before, but there was still a long way to go before one could see the light up front. Roosevelt had to find acceptable and accepted solutions to various problems. There were also a lot of controversial side-effects to his solutions, even the risk that things would turn for the worst at any time.

In this situation, someone had to find a way out. And since Roosevelt's New Deal had a lot of Keynesian influences in it, even Roosevelt's counselors had Keynesian principles, the whole concept was built around what Keynes himself had always believed in: the social solution to unemployment, a solution which would lead, in 1934 and 1936 to what the White House would call the "Providential State".

The American Congress will soon create the Works Progress Administration, the official institution of the state which will guarantee the right to work, administrate wages and the bonification system. It was at that time when the famous Harry Hopkins talked about a type of capitalism with a human face. He used to say "I don't think that in our capitalist state people have to be poor... I think that they are poor because we. Who have the power, we, the leaders, are not smart enough to divide our national revenue, so that we would prevent them from getting poor. This is one of the most convincing and meaningful statement about the social responsibility that most of the state institutions have. It is not a coincidence this statement was first said in the US, where "social justice", even in its capitalistic form, has always been a core principle for a functional society. This is a long way from where Romania is standing at this moment.

As Prof. Andre Kaspi said, one of the bright minds of that time, "unique experiences bear testimony to a generous zeitgeist, when teachers had the mission to teach the illiterate how to read and write. Soon, artists of all kind would entertain the public, the people who, until that moment, had never had access to theater, music, literature, poetry or art. It was a new mission for the school institution." And here lies another core difference from what we can see today in Romania's educational system. Coming back to the subject, it was a time of scientific and spiritual revolution. The American society had shifted its attention to research and technological progress. The Rabi had published an Yiddish-English dictionary. What really mattered was that everybody had something to do, everybody who had lost their job or had "crisis wages" - they had something to work on, so that they could earn more.

All this had drastically improved people's general outlook and attitude. It helped them become hopeful, gain trust, as President Roosevelt said. New measures had been taken, such as the "New Social Security Law", which led to better life insurance, pensions and unemployment financial support.

The New Deal was the piece d'oeuvre of a man who was soon going to be called the "providential" President, the one who seemed to find miraculous solutions

to a nightmare. He was, as a person, very work-oriented, studious and severe, which made him very popular for the American public. That's what brought him his second mandate in 1936.

Roosevelt was rumored that he had communists on his side, revolutionaries and even people that were enemies to the very democratic principles of the American society. All these rumors were nonsense, the President had always been a democrat at heart, but he never thought of democracy as a weapon against people, a weapon that makes poor people become poorer and rich people – more rich. His solid background, in economics, law and most of all, his attachment to the American principles as such allowed him to have a different approach. He would understand the pain of people and fought for them, so that this pain would disappear.

“Through what he did, Roosevelt reduced to silence all those preachers who proposed expensive, painful methods for the population, in order to get out of the economic crisis. That was not the case for Roosevelt” - said Kaspi.

The truth was that he had a very critical and solid approach, compared to his opposition. He safeguarded and developed the core idea of the American democracy. Roosevelt won the fight against the economic crisis. Although he had achieved a lot, but he was not the magician who would pull out rabbits out of his hat. His New Deal had its limits, although he helped the country recover, which was his main objective. According to some statistical data, in 1938 the GDP was level was 98% from what it was in 1929 and in 1939 – it would reach 103%. In 1938 the industry would reach the same level as in 1929, several companies coming back to the international market.

Unemployment, which had reached its peak during the economic crisis, fell to 15-17% in 1938. Added to that, there was unemployment financial support for the people who didn't have a job and that was something new compared to 1933.

The entire economy was coming back to life in the US and unemployment would soon disappear. Moreover, starting with the „Roosevelt Era” the state would actively support various institutions, playing an important role in the recovery of the whole American society. A new, prosperous era had started.

During his first 100 days as a President and 5-6 years after that, the US went through a wonderful metamorphosis... And it became a more powerful nation, which managed through a very difficult time in the history of mankind, after the WWII. Even if for Romania Roosevelt is not an important figure, often associated with his political actions, just like Churchill, Stalin and so forth, it is hard not to admit to oneself that he had a major influence upon world's economy, as the President of the US.

We can see how difficult it must have been for him to do that, since we are still 20 years behind where America was decades ago and Roosevelt made a significant change in only 5 years. Do we need someone like Roosevelt too? Do we

need to come to an end with all our efforts, when he had already started to do something in that direction? Do we need something different?

These are heavy questions to be answered in the most profound, responsible and serious way...

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BOOK REVIEW

ALAN GREENSPAN, LE TEMPS DES TURBULENCES

Traduit de l'anglais par Thierry Piélat et Georges Nicolas, Paris, JC Lattès, 2007.

Alexandru-Florin PLATON

This volume is a collection of memoirs gathering the reflections of Alan Greenspan on the evolution of contemporary economy in his capacity of president of the Federal Reserve Board (the council that administers the American Central Bank), a position he has held for 20 years (1986-2006). It is needless to say that such an employment is extremely important due to the monetary policies he had to implement (such as fixing the interest rate which was his most important task) and the influence he had on the tendencies in world economy. In the context of this economy becoming a more and more integrated (i.e. „globalised”) one during the past decades, these interventions influenced in several ways the lives of hundreds of million people all over the globe. If our pockets have been fuller the past years and we have lived a happier or sadder life, this is also due to the contribution of Alan Greenspan.

The volume was published in September 2007, both in English and French and is divided in two equal parts. The former (the first 12 chapters of approx. 345 pages) focuses on the author's education and carrier in the private field of business and as a state official. Before being appointed the head of the Central Bank by Ronald Reagan, Greenspan occasionally dealt with the American political world either as an economic counselor for the presidents Nixon and Ford or as chief of Ford's team of counselors. From the beginning to the end he was an enthusiast, yet critical fan of the Republican Party which did not prevent him from admiring and favouring the interest shown by president Clinton in macroeconomic policies (alongside with Nixon whose intelligence Greenspan treasured and whose character he despised; of all the presidents he has worked under, Greenspan seemed to cherish Clinton the most).

I have to admit that from my point of view, this is the less spectacular part of the whole memoirs I have to comment on because of the large number of events. However, the latter part which starts exactly at the middle of the book (ch. 13, p. 346-643, not to mention the appendixes) is definitely more interesting. This does

not necessarily owe to the analyses made by the author to various phenomena and tendencies on the global market he had observed during all these years or the (less optimistic) forecasts on the evolutions of the next 30-year economic cycle, but rather to the way Greenspan understood and interpreted the system of „world economy”.

As partisan of the Liberals, the former FED president is in favour of a free market. His „hero” is, of course, Adam Smith (whose name is mentioned many times in the book), but also John Locke that Greenspan admires due to the moral values illustrated in his philosophy. Of all contemporary economists, Greenspan is closest to Joseph Schumpeter – as according to him, his concept of „creative destruction” seems to highlight best the capacity of capitalism to renew itself from a technological and procedural viewpoint. However, it is strange that he does not feel so close to Milton Friedman and the Chicago School although he shares their philosophy without agreeing to it very much. I believe this is a consequence of the excessive theoretical speculations (Greenspan is an utmost practitioner of „the economy of freedom”).

For Greenspan, „market” is not only synonymous with the unbound freedom of economic „actors”. Its balance mechanisms need several conditions to work properly, three of which are essential: proper legislation of private property, independence of justice and last, but not least, a powerful „daily culture of freedom”, shown by transparent and predictable attitudes, conducts and practices. These and many others are linked by a complex network that facilitates and maintains exchanges. „Market” is just the top of the iceberg. The most important part is the hidden one.

The progress made by world economy in the last four or five decades shows that societies have grown each time deregulations breached (or diminished) the invisible boundaries between the economic systems of the world, thus allowing people and capitals a free right of way. On the contrary, the more dominance the policies of economic control regained, the greater the decrease in growth. Greenspan assesses this cyclic character to a human feature: the permanent tension between our desire to be free, enterprising, inventive and the apprehension caused by risks, competition and the inherent uncertainties of a purely competitive environment. Although, in my opinion, the framework is much more complicated than Greenspan presents it, he is mainly right. In a free economy, success is never final (an idea that the present world crisis can only confirm even though it did not occur at the time Greenspan published his memoirs). The trend can come back anytime and no one can ever be certain of success and how long it will last (hence the tendency of many economic „actors” that succeeded or wanted to succeed in business to „trick” the market rules escaping risk by means of political „favors” – a belief of mine, not of Greenspan’s). Moreover, in a market economy, there will always be winners and losers. What happens to the latter? What are they destined for? There is another

issue (irrespective of the economic aspect) that may widen freedom of initiative. It all comes down to the eternal dilemma between more freedom or more equity. When the former principle triumphed, economic systems became more permeable (but also more vulnerable). However, when discrepancies gained in visibility, protectionism was fully restored.

Greenspan suggests that this circle broke in the 1980's when during the Reagan administration, American economy and all the other economies that followed it have chosen the path of massive deregulations. Yet, things hesitantly began earlier, just after the Second World War when European forces had understood that economic isolation was to blame for the big crisis that had just ended. The author believes that the consequences of the new liberal cycle played a decisive role in accelerating the union of economies in a world system whose even stronger integration lately started to generate a series of paradoxical phenomena that have not been encountered before at a smaller scale – precisely due to its global manifestation. To give only two instances, this is the case of economic growth whose long duration of several decades defied all traditional forecasts up to 2008 and was correlated with a disinflation which was spread worldwide and so far denied all forecasts due to its unusual length.

Alan Greenspan does not clearly explain the causes of this mutation which is unique in history. Yet, I believe that it must be linked to what I would call the shift of a paradigm of thought: more precisely, this is about the shift from a historical, evolving and stage perspective (still to be traced in the 1980s), governed by a series of pretended „laws” of development (such as the ones identified by marxism) to a perspective of diversity and pluralism inspired not by a tendentious and finalist viewpoint on development, but by the concern to understand and integrate differences as perceived in their historical simultaneity.

From this angle, many and apparently very different things (such as the irredeemable failure of marxism as ideology, the fall of communist regimes, the ongrowing popularity of liberal philosophies including their theorists - Tocqueville, Weber, Aron – that were rediscovered those years) find themselves unexpectedly „linked” explaining, in the field of economy, the gradual abandonment of almost all regulations owing to the aforementioned finalist perspective on development. Therefore the quasi-religious faith in „the invisible hand” replaced planning and control which indirectly marks the end of a certain rationality nourished by the illusion that all may be rigorously anticipated and guided by minute regulations (I would like to add that the critics of an absolute free market speak of „chaos”, when describing its manifestations; the term is used as an „invisible hand” turned upside-down, but it also stands for another way of saying that forecasts can be far from reality in this field. The present crisis spectacularly confirms this interpretation).

Alan Greenspan warns us that this is precisely the reason why free market is a game difficult to win. Despite its success during the last decades (economic growth, sustainable development, wider access to the benefits of development and a better life in general, even for the populations of „developing” countries), the tendency may change anytime if countries take back the dangerous protectionist policies. Threats in this sense are countless especially from populism (which is sharply criticized by the author) that tempts some regimes (such as the one in Venezuela). Moreover, the emergence of new promising „actors” (China, India, Russia) on the world market is likely to have an influence in the future.

What is to be done to prevent a recursion? Among others, there are two things, Greenspan asserts: firstly, the drafting of some educational policies to facilitate and accelerate the reconversion of the workforce in the new fields, professions and specializations unceasingly created by free market economy. Secondly, there is a liberalization of immigration which is meant to stimulate skills and also globally balance the inequities of position and revenue between various population categories which are running the risk to go off if left in the hand of national officials.

Giving the benefit of the doubt to the philosophy of economic freedom that the American economist pleads for, the present world context, marked by the most powerful economic cataclism since 1929, complicates some of these solutions imposing the search of other ways of recovery.