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MICRO AND MACROECONOMIC EFFECTS OF FINANCIAL INNOVATION

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FINANCIAL MARKETS AND THE POST-CRISIS SCENARIO

*Michele Bagella - Rocco Ciciretti**

1. Introduction

The theoretical dispute between the Keynesian school and the neoclassical school, where the former is eager to show that how much the deregulation has been shortsighted, while the latter seems to stick to the idea that financial crash is the way to push up the market, does not look like a good starting point to understand at which point of the crisis we are and which could be the right futures. This work is focused on understanding how the governance could have had and will have impact on the crisis, as well as possible future scenarios.

Day after day, the financial markets register negative trends with few positive flashes. This is not due to events which are particularly related to the market itself. It appeared in the days when there were government interventions, when everybody expected a positive sign in the financial market but a negative sign occurred. Sometimes, this is due to the intensity of actions taken by the governments. The markets always expect appropriate interventions (in terms of intensity). Looking at these market reactions (in unexpected signs) after each government action, we can suppose that the policy makers underestimate the intensity of this crisis at the moment.

The facts of these days, underlines the difficulties that the US and European governments encounter in order to offer citizens with sufficient

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elements to believe in the recovery of the economy, despite the interventions in supporting banks. So how can we come out from the crisis if the actions adopted until today don't manage to (re)build confidence in the market, given that the competitive market is still the right way? Pushing the market to one of its limits created a credibility problem in the market itself.

The ongoing global financial crisis is very different from the crisis in the 90's and the one happened in the beginning of 2000 [1]. The previous crisis had the characteristic of starting from countries with a weak economy, and being linked with an unsustainable weight of debt (Mexico, Russia, Brazil and Argentina), or having an excess internal credit (South-east Asia). While the crisis that bursted in the US in 2002, looked again at the weakness of rules related to the auditing firms, which got involved from the unbalanced budgets of Enron -a large group in the energy sector. The last case was considered as an important alarm for the Supervisory Authorities of stock exchange activities (the SEC, *Securities Exchange Commission*), who intervened in the following weeks to mitigate the contradictions in the regulations of auditing firms. Very often, the auditing firms are in charge of auditing the balance sheets of listed firms, and on the other hand offer consulting services on how to prepare the same balance sheets. This evident conflict of interest that exploded referring to the energy group in question, involved other important Wall Street quoted groups immediately after [2].

2. Data on the crisis

The crisis started in 2007 (the first signs showed in June), with a downgrade of 131 ABS (*Asset Backed Securities* – securities whose value are based on the underlying assets, such as credit portfolio) issuances from the ratings of Moody's and especially in the subprime mortgage market. In August, the market (both American and International) expected the FOMC [3] to reduce the reference interest rate. The announcement was been given by Bernanke on August 15th and was made effective in the following meetings in September where the FED (*US Federal Reserve*) lowered the interest rate from 5,25% to 4,75%, while the BCE (*European Central Bank*) kept the interest rate unchanged.

The crisis of subprime credit market spread quickly to all other markets. The NYSE and the NASDAQ claimed serious losses as well as other

[1] Barsky - De Long (1990).

[2] Acharya - Richardson (2009).

[3] *Federal Open Market Committee* (FOMC) is the committee of the Federal Reserve System in charge, on a 6-weeks basis, to decide the interest rate of the US market.

MICRO AND MACROECONOMIC EFFECTS OF FINANCIAL INNOVATION IN A DOMESTIC AND INTERNATIONAL PERSPECTIVE

Gianandrea Goisis *

Structured finance, derivatives, and asset-backed securities became established between the late 1990s and the early 2000s, contributing to the expansion of the profits of the financial system, to its enlargement, and – as far as economists are concerned – to the study of scope economies, and highlighting the benefits that result from the adoption of new, more complicated money-saving and high-remuneration techniques and products.

As known, in chemistry, a derivative is a substance that is structurally bound to another substance and that can theoretically derive from the latter, i.e. a substance that can be built based on another substance.

Financial derivatives, and by far other kinds of structured finance as well, can be similarly defined as instruments whose profitability and reimbursement probability depend on the value of something different, known as underlying, which can be another financial instrument, an interest rate, an exchange or price index, a credit, or any other reference item (Stulz, 2004).

Derivatives appeared towards the late 1990s as the philosopher's stone, which allows to change an illiquid position into a liquid one, and according to BIS estimates (BIS, August, 2008), reached – as a notional value of OTC securities – a global amount of US $ 598 trillion at December 2007, i.e. increased tenfold compared to 1998, and became a substantial multiple factor of the international GDP (see *Tables 1* and *2*).

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Table 1. – Amounts outstanding of over the counter (OTC) derivatives by risk category and instrument (in billions of US dollars).

	Notional amounts outstanding			Gross market values		
	Dec. 05	*Dec. 06*	*Dec. 07*	*Dec. 05*	*Dec. 06*	*Dec. 07*
Total contracts	297.666	414.845	596.004	9.748	9.691	14.522
Foreign exchange contracts	31.366	40.271	56.238	997	1.266	1.807
Interest rate contracts	211.966	291.582	393.138	5.397	4.826	7.177
Equity linked contracts	5.793	7.488	8.509	582	853	1.142
Commodity contracts	5.434	7.115	9.000	871	667	753
Credit default swaps	13.908	28.650	57.894	243	470	2.202
Unallocated	29.199	39.740	71.225	1.659	1.609	1.642

Source: BIS, Quarterly Review, September, 2008.

Table 2. – Derivative traded on organised exchanges by instrument - Notional principal in billions of US dollars.

	December 2006	*December 2007*	*June 2008*
Total futures	25.683	28.059	28.631
Interest rate	24.476	26.769	26.892
Currency	161	158	176
Equity index	1.045	1.131	1.563
Total options	44.760	52.516	55.655
Interest rate	38.116	44.281	46.898
Currency	79	133	191
Equity index	6.565	8.101	8.566

Source: BIS, Quarterly Review, September, 2008.

The dream of the *new view* of Gurley and Shaw, as well as of Sayers, about a general liquidity seems to come true through a wise distribution, differentiation, and dispersion of risks.

Structured finance ensures that the exchange risk, the interest risk, the stock risk, and the credit risk are distributed among multiple operators, also outside the banking system, turning an originally illiquid (and anyway non-transferrable) bond into a position that can be generally accepted in different environments and in different countries.

Exchange derivatives, interest swaps, options, and asset-backed securities promote the development of international trade, of bond and security markets, of consumer and construction credit, also among groups that used to be poorly reliable (Santomero - Eckles, 2000); a *securitization* process is created, which seems to involve everything and everyone: banks, the financial system in general and apparently, in the case of US real estate, the US Treasury itself, which t is not inappropriately seen as the final refinancer of growing property loans, increasingly placed on publicly participated institutions (see the strong development of Fannie Mae and Freddie Mac in the 1990s), which *securitize* them by assigning them as guaranteed bonds (Frame - White, 2005).

All the parties earn on this, and the ROE of commercial and investment banks reaches values unseen before. Rating agencies, in turn, benignly provide high ratings also to less risk-conscious operators. A flourishing St. Anthony's chain (or, perhaps more appropriately, o a Ponzi's Scheme) shifts risks and part of the gains to the operator that follows.

This is also achieved when high GDP development rates are in place, and without too strong inflationary tensions (see *Tables 3* and *4*).

Table 3. – Industrial Production Index (% change).

	January	March	May	June	July
			USA		
2006	6.74	2.05	2.23	3.23	2.61
2007	0.83	0.83	1.64	3.49	3.84
2008	2.68	-1.43	-3.90	-1.39	1.80
			Euro Zone		
2006	3.04	4.44	5.79	4.91	3.67
2007	3.32	4.18	2.92	3.05	3.98
2008	3.18	1.35	-0.19	-0.54	–

Source: Thomson Datastream.

Table 4. – Monetary aggregates and prices Euro Zone (% change).

				2008	
	2006	2007	Febbraio	Aprile	Giugno
M1	8,6	6,4	3,7	2,4	1,4
M2	8,7	9,9	10,6	10,3	9,4
M3	8,4	11,1	9,9	10,3	9,5
Prezzi al consumo	2,2	2,1	3,3	3,3	4,1

Source: ECB, Monthly Bulletin, various years.

Finally, in a frenzy of counter-insurances – some of which, in less transparent cases, are guarantees granted by controlled or participated institutions – the superstructure, the derivative, seemed to become independent – in both a micro and a macroeconomic perspective – of the underlying (the container prevails over the contents), setting the assumptions for the current bitter awakening.

Widespread losses on financial markets at the end of 2007 and, particularly, in 2008 went hand in hand with growing inflation rates and declining production indexes, obviously not only due to the financial crisis, but also negatively influenced by it.

Such system crises that spread from business banks to the insurance system – see the case of the insurance giant AIG – and from one country to the next were caused, just to mention some of the most sensational cases, by the possession of asset-backed securities of Fannie Mae and Freddie Mac in China, Japan, and Arab countries and by the global spreading of Lehman Brothers derivatives and bonds.

Hence the unusual intervention of the monetary authorities on the markets, implemented through a direct uptake – facing losses that the private institutions could no longer cope with – of certain ownership liabilities, as well as through the management of companies in trouble and their agreement to act as an authorized landfill, first indirectly through the refinancing of banks upon submission of securities that were not acceptable before, and then with an engagement to buy trash securities, without any apparent quantitative limits.

This happened first and foremost in two sanctuaries of *laissez-faire* – the UK and the US – then spread to the Euroland countries.

As it happened in the 1970s, the excitement brought about by the general liquidity of the economic system left us helpless, facing a crisis that ruthlessly uncovers the differences between what is liquid per se and what is only liquid in special circumstances and in special conditions.

The volatility of currency markets, of interest rates, and of share quotations has placed many financial operators in danger, with impacts that reach far beyond the economic systems that hosted to them, and involving – with adverse selection effects – utterly safe securities, with a risk of future rarefaction thereof.

The 2007 budgets drafted by Bankscope show that some banks, operating with high profits in Europe in 2006 with higher-than-average derivative rates vs. earning assets, were losing significant ROE shares in 2007 (see *Table 5*).

ECONOMIES OF SCALE AND SCOPE IN THE EUROPEAN BANKING SECTOR

Gianandrea Goisis - Maria Letizia Giorgetti
Paola Parravicini - Francesco Salsano - Giovanna Tagliabue *

1. Introduction

The aim of this study is to investigate the issue of economies of scale and scope in the banking sector on the basis of recent data. The geographic region under study is Europe [1] not often discussed in recent literature so far. All the banks selected as a sample have published consolidated financial statements and are characterized by the adoption of homogeneous accounting systems. The process provided for the use of translogarithmic cost functions, which ensure prompt focus and a good interpretation of findings in economic terms. The findings point out to the existence of significant economies of scope and are therefore in line, in this respect, with many authors (Berger - Dick - Goldberg - White, 2007; Mester, 2005 and 2007).

On the other hand, economies of scale [2] are clearly identified for small banks.

For the medium ones, economies of scale are only found for the model based on the stock outputs when a definition of total cost is used including strictly operating costs, as well as the interest expense.

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[1] The term Europe refers to all the countries of the European continent, including Turkey and excluding the countries of the former Soviet block. This definition coincides with the one provided by the data set of Bankscope used for this research.

[2] See Revell (1987) for a pioneer study on scale economies in Europe and Bos Kolari (2005) for more recent evidence.

Furthermore, the possibility of achieving economies of scale seems monotically decreasing with the size of the banks.

In this respect it can be noticed, as did the prevailing scientific literature, that the aggregation process that took place, in particular, in the last decade reduced the opportunities to achieve further economies of scale, and rather expanded those resulting from diversification.

2. The data set

The information used for estimates is taken from the data set of Bankscope[3] for the year 2006, which includes data for almost all the financial intermediaries in Europe.

In order to come up with the final sample to be estimated, a selection was performed to identify the entities relevant to the research.

The first selection was performed according to the «Total Capital Ratio» indicator, and only the European intermediaries that, in 2006, provided this kind of information, which is crucial to be qualified as «banks», were included. We excluded also the banks that did not draft any consolidated financial statements. It was then deemed appropriate to consider only the entities whose financial statements are drafted according to the principles of the *International Financial Reporting Standards* (IFRS), in order to use homogeneous aggregated data.

The observations selected from the data set of Bankscope based on the above-described search criteria led to consider a total of 288 banks.

The need to have a full range of significant input shares and input prices for all the banks finally led to reduce the sample from 288 to 285 and 283 observations respectively for the model with a restricted or a larger definition of total cost (TC1 and TC2, as better specified in Section 3).

The sample thus obtained appears representative of the entire European banking sector and its main features are summarized in *Tables 1* and *2*, which provide information on the size of the assets, the specialization, the relevant country and the listing or non-listing of the banks considered on regulated markets.

[3] Bankscope is a data base that contains the detailed and reclassified financial statements of banks all over the world. It provides an historical set of 8 years, detailed information on shareholders, shareholdings, 2 years of Reuters news, bank and country rating, detailed reports on bank and country risk analyses.

BALANCE OF PAYMENT DEFICITS AND THE INTERNATIONAL FINANCIAL DOWNTURN: A FEW ALTERNATIVE ASSUMPTIONS

*Gianandrea Goisis - Paola Parravicini**

The present international economic downturn is generally attributed to disruptions of the financial system that, through the «proactive» participation of unskilled, untrained, and often malicious operators, caused the *new finance* to hamper, rather than facilitate development processes.

Banks, insurance companies, and other brokers engaged in turn into a heedless competition for profit increase without paying due attention to the new complicated instruments to achieve them. The complex algorithms at the basis of derivatives and asset backed securities concealed dangerous pitfalls for the buyers and for the same issuers, particularly in the long term.

Trust was often given to the skills and diligence of others – for example of Lehman Brothers, a sacred monster of finance – or to the solidity of the ultimate guarantor – see the case of the battered AIG; in the light of actual facts, all these mutual counterassurances have turned out inconsistent, forcing the governments to implement massive support. This, however, was somehow justified by the substantial and generalized inadequacy of the supervisory authorities, which came into play when the disruption was already in place (Goodhart, 2008; Cecchetti, 2009).

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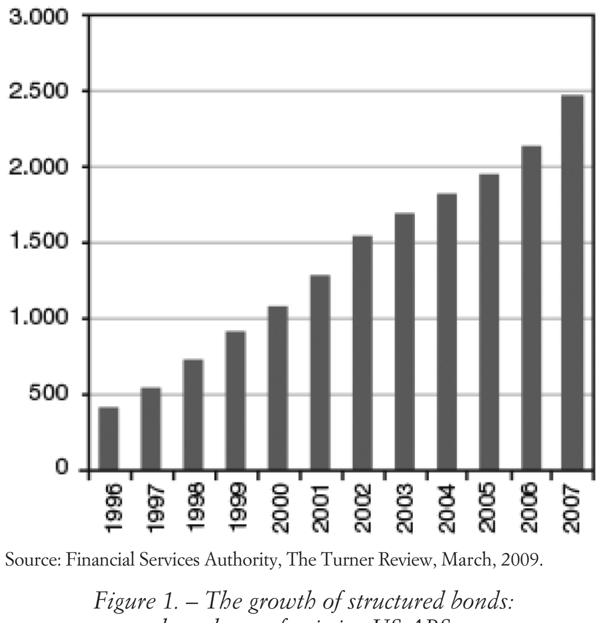
When fraud added up to the lack of skills, micro and macroeconomic impacts became overwhelming and expanded from the finance world to the real economy involving all sectors and all countries.

We do not intend to deny or downsize what we or others have already said about these causes for the downturn, but it looks anyway appropriate to consider other factors at its origin, which are probably upstream of these.

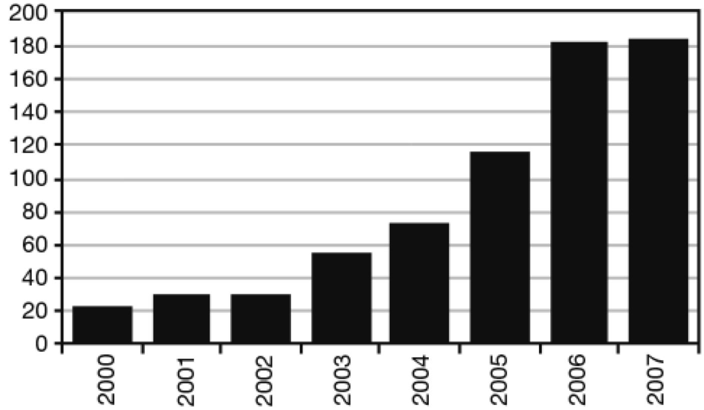
As is known, the US has been suffering from a deficit of the balance of payments current account for decades; this deficit increased in the past few years and now accounts for a significant share of the GDP (Mann, 2002). The UK and the European Union as a whole are in similar conditions, even if their absolute values are much lower. The lack of a discipline similar to the Gold Standard allowed the US – just to mention the most sensational case – to fund its trade deficits for years first through its paper money (recognized as equal to gold), then through traditional public and private debt, and finally also through structured products, including derivatives and asset backed securities (Coval *et al.*, 2009; Hildebrand, 2008), which have doubtful and sometimes unreliable foundations (see *Figures 1* and *2*) [1].



Source: Financial Services Authority, The Turner Review, March, 2009.

Figure 1. – The growth of structured bonds: the volume of existing US-ABS.

[1] For the amount of derivatives, see the paper here published by G. Goisis, «Micro and macroeconomic effects of financial innovation in a domestic and international perspective».



Source: Financial Services Authority, The Turner Review, March, 2009.

Figure 2. – The growth of structured bonds in the UK.

In some sort of unusual *subsidiarity*, private finance supported the government in encouraging high domestic consumptions and policies to promote residential building for the less wealthy groups [2], through the issuing of credit securities of various kinds and degrees of complexity largely placed abroad [3]. This point will be discussed further on.

Furthermore some statements of Alan Greenspan, made around the half of this decade, arouse perplexity for their dogmatic confidence in the self-adjusting ability of the financial markets [4]. Moreover, there is minimum concern about a real-estate market, booming for years and increasingly founded

[2] A clear hint in this respect is the support provided to Fanny Mae, when it was threatened by the crisis, which appears as an implicit debt acknowledgement by the US Treasury.

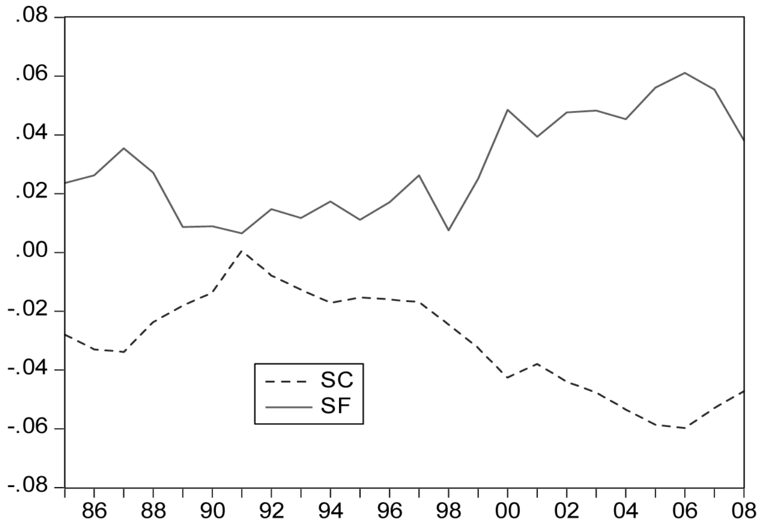
[3] Incidentally, this phenomenon is less severe in Italy, which shows lower family debt rates vs. the global wealth. See Bank of Italy, *Supplement to the Statistical Newsletter*, year XVIII, nr. 76, 18, December, 2008 and Goisis (2009a). In this respect, some preliminary results of a study under way force us to wonder whether it would be more appropriate to substitute, as an indicator for compliance of the international financial rules, the total of the deficit and the public debt with the total debt originated by the private and public sector, particularly for the share held abroad.

[4] With respect to the fact that Greenspan's position was widely shared in the US, see the clear statement contained in the *Economic Report of the President for 2006*, stating (on p. 204) that: «[…] in consumer financial products offered by bank, such as cash-out mortgage refinancing may have helped to moderate economic fluctuations […]. In addition, the widespread distribution of consumer credit has almost certainly allowed many individuals to insulate themselves from short-term economic shocks».

on asset backed securities based on subprime loans. No serious alarms about the worsening of the quality of financial products are found in the reports of the monetary authorities of developed countries until the end of 2007.

Thus we cannot exclude a suspected implicit connivance, affected by mutual misunderstandings and excessive undue trust, between governments, authorities, and financial intermediaries to cope as cheaply as possible, by financial shortcuts, with a resource deficit that cannot be contained in real terms at the moment. To check the assumed links between the deficit of the balance of payments current account in some countries and the development – followed by unusual expansion – of the international financial markets, the trend of a few significant variables was highlighted using simple econometric relations. In particular, starting with the US, from 1985 – a year from which homogeneous data is available for the country – to 2008 the relation between the absolute values of the deficit of the balance of payments and of the financial account (offsetting such deficit) is utterly clear and shows some traits of stability. The same is true with respect to the relation between the two variables expressed as percent rates of the GDP (see *Figure 3*).

If correlation coefficients are estimated between the two pairs of variables, the impression is further confirmed, as is the case if the relations are analyzed by sub-periods (see *Table 1*).



Source: Datastream data processed by us.
Note: SF is the financial account vs. the GDP, SC is the current account vs. the GDP.

Figure 3. – US, years from 1985 to 2008 (24 observations).

THE IMPACT OF FINANCIAL INNOVATION

*di Ezio Lancellotti**

1. The meaning of the term «financial innovation»

This term may obviously point out to any change in the household, company, and public entity funding system, however also with a focus on trading on the financial market. The difference between the financial market and the real market is that the former's object is made up of financial assets, rather than goods or services, i.e. «Positive individual juridical positions», as jurists would say, whose value is not intrinsic to them, but rather to their suitability to acquire money and, through this, goods and services. Financial liabilities correspond to financial assets and represent the responsibility taken by any party to get the holders of the corresponding financial assets to acquire money directly or indirectly. The individuals, within the framework of the juridical system inasmuch as this poses limits to the contracting power, create and destroy financial assets and liabilities through their contracting activity.

Financial innovation may thus consist in the creation of new types of financial assets and of the corresponding liabilities, as well as of new types of parties that cause such creation via their contracting activity.

2. Innovation in financial asset and liability types

In recent years and decades, relatively simple types of financial assets were known and used; these became more diversified and complex in time, as the specialization and geographic extension of negotiations increased.

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In times preceding the past decades, the main types of circulating financial assets included money (legal and bank money), securities issued for the short-term funding of companies (bills of exchange and promissory notes), and securities issued for the medium and long-term funding of companies (bonds and securities representing company shares, including ordinary shares and preference shares).

In the past few decades new parties operating on the financial market and new kinds of financial assets have appeared.

New parties include entities operating on financial assets other than traditional ordinary credit banks (commercial banks, mostly funded through deposits), particularly shared funds and investment banks (funded by means of participant deposits, as well as by bank credit and the issuing of bond securities representing reimbursement bonds dependent on future and uncertain facts).

This last group of securities have sometimes become extremely complex, and this makes it very difficult to assess the reimbursement risk, at least for the parties that buy them, also indirectly, from the issuers, in consideration of the reputation or apparent creditworthiness of the issuers.

3. The impact of financial innovation on welfare

Financial innovations, in terms of security types and of parties operating on the financial market, surely help increase the efficient allocation of resources and welfare in the economy.

I think it can be easily demonstrated by means of a Pareto analysis that a differentiation of the loan instruments and of the parties operating on them allows to fund, directly or indirectly, the production of goods and services favoured by the potential buyers vs. others that cannot be funded without differentiation.

For example, investment funds may allow the participants to better differentiate their financial assets, with greater satisfaction in terms of lesser risk with equal yield; they can also allow more competent investments than those performed by the individual participants (or by the ordinary credit banks that would, alternatively, use the deposited funds, at least for certain forms of investment), with higher investment yields and even greater satisfaction of the participants; they can finally allow to grant loans to companies manufacturing innovative goods and services, more favoured by the end users than the traditional ones, which could not otherwise be available to companies for risk or size-related reasons.

RISK ALLOCATION AND UNCERTAINTY: SOME UNPLEASANT OUTCOMES OF FINANCIAL INNOVATION

Aldo Montesano *

1. Introduction

In the framework of the general economic equilibrium theory, finance involves monetary exchanges in which their object are sums that are available at different points in time (for example credit markets, where *A* pays *B* a sum of money today in exchange for another sum to be delivered after a year) and/or sums which are made available in some states of the world (for example contingent markets, where *A* commits to paying *B* a sum of money if at a certain date event *E* takes place in exchange for another sum which *B* commits to paying to *A* if event *F* occurs on a given date). In very general terms, finance deals with markets of this type. Financial innovation introduces the possibility of exchange on wider time-events sets. In this way market incompleteness should be reduced, with an overall advantage for economic agents. The existence of this advantage, nonetheless, also depends on other elements, like the degree of market competition, the level of information, and the presence of inefficiencies generated by moral hazard [1].

In the present paper, the influence of several of these factors will be briefly examined, keeping in mind how certain behaviors of financial operators, who benefit from financial innovations, have produced undesirable effects. In particular, I will try to show how considerable uncertainty (ambiguity) regarding certain financial products has been created. Aversion to this

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[1] About financial innovation see, for instance, Tufano (2003).

uncertainty has reduced liquidity, and this has in turn caused mistrust *vis-à-vis* the solvency of primary financial operators.

Uncertainty and illiquidity have also been fueled by the fact that financial innovation has developed outside of the organized markets and has not created standardized products which can be exchanged anonymously under the rules of a stock exchange market. The new financial products have been sold over the counter, often to other banking and financial operators, and sometimes they have not even been sold, but placed in vehicles of the parent company, off its balance sheet. These often were opaque and poor-quality assets due to the presence of moral hazard situations. Moral hazard has also been favored by the structure of incentives for the administrators of investment banks, which are based on short-term results.

Furthermore, US financial innovation has developed in an economic and political environment characterized by systemic excess. This has included sizable deficits (foreign, as well as private and public) covered by borrowing; expansionary monetary policy, which has displayed indifference faced with mounting asset price inflation; and inadequate – at times non-existent – regulation, especially for investment banks which were allowed to leverage themselves to unprecedented heights. The disinvestment of existing leverages increased systemic risk and thus required state intervention.

2. The tendency of banks towards risk intermediation rather than risk taking

One kind of behavior which has been widely common among banks, also due to regulatory provisions tying capital requirements to the level of risk taking, consists in the reduction of risk taking in relation to credit activity. There are two main risks in supplying credit – actual credit risk (the probability that the lender will not meet his/her commitments) and interest rate risk (the probability that the lending rate is lower than the bank's borrowing rate).

One way to avoid interest rate risk is to make the lending rate undergo pretty much the same variations as the borrowing rate. This occurs also with long-term loans, like real-estate loans, where the interest rate is almost always based on the interbank rate (Euribor, Libor, etc.). This kind of variable rate by and large protects the bank from interest rate risk, which is in fact transferred to the debtors who thus end up shouldering the risk, since their incomes are almost never correlated with interbank interest rates. The variable rate also reflects the uncertainty of interbank loans (generated by the lack of trust in the solvency of the bank requesting the loan), which would

SOME THOUGHTS ON FINANCIAL INNOVATION AND FINANCIAL CRISIS

Giovanni Palmerio *

1. Introduction

Traditional economics textbooks describe banks as institutions performing almost uniquely traditional financial intermediation, i.e. receiving deposits and issuing loans. This type of bank is rapidly disappearing. It is being substituted by a new type of bank that offers clients an increasingly diversified range of services. An effect of this change is that the revenues accruing from interests are becoming less and less important in banks' balance sheets while those tied to commissions, or to the purchase (or sale) of securities on financial markets, are growing. This phenomenon occurred both in the United States and in Europe especially during the 'Nineties. In the US the share of revenues not originating from interests passed from some 20% in the 'Eighties in last century to 43% in 2001 (Stiroh, 2004). In Europe it went from 26% in 1989 to 41% in 1998 (European Central Bank, 2000).

This dramatic change was certainly fostered by new technologies, and especially by the spreading of new channels for electronic data transmission. However the factor that is almost unanimously acknowledged as being the main element to speed up the transformation of the banking system is the liberalization of financial markets (Ciarrapico - Cosci, 2008). In the course of the last twenty years regulations changed both in the US and in Europe, allowing new subjects, other than banks, to operate on markets where previously only banks operated and also allowing banks to extend their activities to other markets, besides the usual supply of loans to enterprises. As the

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offer of activities on behalf of banks became more diversified, interest margins became thinner, both in the United States and in Europe. Some scholars interpreted this fact as a natural reaction of banks to growing competition on the credit market.

If on the one hand it is no more possible to teach that banks' main activity – possibly the only one – is that of receiving deposits and issuing loans, on the other hand also traditional analyses of the money market are becoming meaningless. Money markets are no longer represented by essentially two types of securities (fixed income), bonds and (variable income) shares. Financial innovation has created, and continues to create, a growing number of different securities, the so-called *derivatives*, and now a great number of them exist.

2. The United States' foreign deficit and its effects

The causes of the huge, abnormal, development of financial innovation are essentially two.

The first one is represented by the enormous growth in international liquidity. The latter, in turn, stems mainly from the current account deficit of the United States' balance of payments. This country started recording a deficit in 1972 and never ceased doing so since then; now the deficit is more than 6% of the country's GDP. Moreover, the United States' deficits are growing, notwithstanding the strong devaluation of the dollar. Since the early 'Seventies the situation of the US economy has changed completely with respect to that of the 'Sixties or even earlier, when the American trade balance had a surplus and the outflows of capital balanced the balance of payments or else made it negative.

The financial crisis that exploded in 2008 eventually lead commentators throughout the world to investigate a number of features of the American economy that should have been questioned long since both by economists and politicians. This refers to the need to analyse the structural causes of the low competitiveness of the American economy as a whole together with the prospective effects of the growth of the American foreign debt.

Until the early 'Sixties in the last century foreign trade was scarcely important for the American economy. In 1960 the US exports of goods and services represented less than 5% of GDP. Imports were still lower, given that the American trade balance was at the moment positive. Nowadays exports represent some 10% of GDP while imports are over 15% (the trade

GREAT DEPRESSION N. 2: FINANCE AND THE REAL WORLD

*Pier Luigi Porta**

Introduction

It is not easy today to make sense of the current predicament of our wilting economies.

Economic opinion, as of spring 2009, appeared divided. Some economists and economic opinion leaders argue that the present crisis provides scope for a necessary adjustment after years of tumultuous growth. The trade cycle is not a thing of the past, as some had fancied especially during the Roaring Nineties. It stays with us and, on the whole, it is probably not too bad. It is something we can learn to live with, as it performs a physiological function. Things are *bound* to adjust, though (admittedly) perhaps not as quickly and promptly as, say, the real cycle theory used to predict.

It is obvious that in *any* depression this particular standpoint has constantly been there and that it embodies, indeed, the most immediate and sensible reaction to a depression. Of course it is also a kind of reaction which, as a rule, is likely to be relished by CEOs and Politicians alike, both when they try to avert being indicted for the disarray and when they aim at milking the taxpayer's purse. Some would also argue that, even if doubtful, it is a good thing to spread the idea of a fundamental stability of the economy, essentially to keep defeatism at bay, as the latter no doubt is a stimulant of the crisis. As an aside, in particular, when pondering the view of economists on policy, it is very instructive recall where and when they got their Ph. D.s, but it is sometimes perhaps even more instructive to keep in mind on which Boards they are currently sitting.

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Indeed what I am describing here used to be the general optimistic mood behind the whole of economic theory for a long time, an ideal of theory firmly based, sometimes unwittingly, on a principle known as Say's Law. Things started to change as economists got more interested in the economics of the short period, approximately at the turn of 19th into the 20th century. It is perhaps not useless to recall that that was precisely the standpoint which Keynes meant to challenge. The debate between Hayek and Keynes on the trade cycle, for example, – despite the fact that it is largely based on Keynes's *Treatise on Money* – is still important today and has something to tell us on the economics of the recessions: we see on the one side the optimism of self-adjustment, however painful, versus the pessimism of those who see the economy stuck in a curious type of *equilibrium* and are prepared to call the State to the rescue.

Much as it happened at that time, the optimistic position seems to be the dominant one also today. Men of finance in particular, both when successful and when they go bust, are firmly optimistic as to the stability of the system and on the long run advantages of financial expansion in creating wealth. After all, to mention a famous case, a major unwitting upholder of Say's Law was David Ricardo, an extremely and uniquely successful man both as a theorist and as a loan contractor on the Stock Exchange Market. Ricardo is quoted as saying, in an upbeat comment, that «he had made his money by observing that people in general exaggerated the importance of events».

At the same time there are voices in the wilderness. Some observers try to reconstruct the recent vagaries of economic theory especially in the macro camp. The Keynesian paradigm trickled down slowly but steadily after the appearance of the *General Theory* in 1936, but it exploded into full triumph only after the end of Keynes's own lifetime. Admittedly it was not so much the triumph of pure Keynesianism; it was in the main the success of the so-called Neoclassical synthesis, also called «Bastard Keynesianism» [1]. That triumph, and the way it occurred, meant a leap into mechanic or hydraulic Keynesianism. All that produced violent swings in the general scientific mood. The very success of «Bastard Keynesianism», was (to a considerable extent) self-defeating and it came to be instrumental to paving the way to the demise of the Neoclassical synthesis itself. There was a rapid decline of the Neoclassical synthesis, which came to be pushed aside. A monetarist revival was already well under way at the end of the 1960s. The revival, however,

[1] See Pasinetti L.L., *Keynes and the Cambridge Keynesians. A «revolution in economics» to be accomplished*, Cambridge, Cambridge University Press, 2007.

all ended up building a «market mystique», as Paul Krugman has dubbed it, which appears at the root of the searing excesses and consequent havoc affecting our financial institutions [2].

Of course, following this line of thought, the view of the crisis takes a very different shape. After the economic disasters produced by Communism in the past century, it seemed difficult to do worse. But here, if we take the situation of some of the ex-Socialist economies as an example, we may really be in front of something even worse. Hayek's famous argument, on the dire consequences of the «pretence of knowledge», can now be retorted against a whole host of gallant defenders of the free market who have been all too easily assuming themselves to be immune from that kind of disease.

At the same time the present economic turn produces self critical concerns on the kind of teaching that has become dominant and uniform all over the globe in economics. Such an attitude is sometimes favourably taken, almost as a proof of sound scientific reliability: but it is also increasingly tempting to cast doubt on that widespread belief. Whether sincere or mixed with crocodile's tears, taken at face value, recantations abound.

1. Money, finance and the real world

Political economy has been historically somewhat wobbly in choosing whether to put the main emphasis on financial or real phenomena in the economy. It is probably fair to say however that, at least from a certain point in time onwards, real aspects have got the upper hand. Current historiography invariably reflects the viewpoint of the winning side: almost any retrospective reconstruction of economic analysis today invariably shows that the *real* aspects are at the centre of the stage almost at all times. It would be interesting to have a financial history of the world, for example along the lines of the recent book by Niall Ferguson, which seems to provide a fair start on the subject. On the whole, at the level of historical analysis, we mostly have partial works on the working of the monetary and financial system, rather than analyses at the planetary level [3]. Otherwise we have a flourishing litera-

[2] «The market mystique», *International Herald Tribune*, March 27, 2009.

[3] Among authors of interest Charles Goodhart, Barry Eichengreen, Ben Bernanke, Joe Stiglitz and others. For a general treatment concerning Europe, Ch. Kindleberger still is among the best references: *A financial history of Western Europe*, London, G. Allen & Unwin, 1984; Ferguson N., *The ascent of money. A financial history of the world*, London, Penguin, 2008.

SOME REGULATORY LESSONS TO BE DRAWN FROM THE FINANCIAL CRISIS

Luigi Prosperetti *

The financial crisis has given rise to a heated debate, of a rather technical nature, about what exactly has gone wrong in the regulation of financial markets, and how best to draw future regulatory institutions and procedures [1].

I would rather take here a different approach: as I am certainly not a scholar of financial regulation, I have indeed not much to offer to such a technical *discours*. On the other hand I believe that some very useful lessons may be drawn from the events unfolding in front of our eyes as far as the theory of regulation itself is concerned. This will be, therefore, the focus of my brief reflections here.

In economics, regulation seeks to prevent and correct market failures. Antitrust policies do both, insofar as they prevent the strengthening of market power through merger control, police the behaviour of dominant companies through provisions that repress abusive behaviour, punish cartels through the use of administrative, civil and, in some countries, criminal legal provisions. Antitrust policies, in some cases, are mixed with ex ante regulatory instruments: when – as in many utilities – the social cost which would arise from an ex-post intervention, based in Europe upon article 82, are perceived to be very high, economic policy resorts to the definition of ex ante access rules: in other words, when it would be very expensive to correct

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[1] As new papers are published on a daily basis, it is difficult to provide here with a brief list of references. For an historical perspective, the papers presented in Banca d'Italia (2009) are however particularly useful, and on http://www.voxeu.org readers may find brief and up-to-date comments by authoritative European and American economists.

the consequences of the behaviour of undertakings possessing a significant market power, we either prevent its acquisition, or regulate it usage.

Regulation of financial markets seeks to correct several market failures. On the one hand, in such markets information asymmetries are so important that, absent regulation, the markets where companies acquire household savings, in the form of risk capital or loans, would work very badly, for the well-known reasons that Akerlof's «market for lemons» seminal paper clearly outlined [2].

But this is the private side of market failure that financial market regulation seeks to correct. True, not only companies and savers would suffer from the inefficient workings of such markets: Akerlof's original point was indeed that a relevant market failure would occur, as there would not be a market for good-quality used cars, and this would affect the economy as a whole.

On the other hand, I would stress the fact that the cost of such a failure is often borne by a small number of economic agents (those who have, or would like to buy, a good used car), and that the price system incorporates the cost of such a failure: when you buy a new car and drive it once around the bloc, the car loses about one third of its value. Hence, when many markets do not work well due to information asymmetries, private parties will suffer, and they will have a rational incentive to bargain around such failures or, when this is not possible, support some form of regulatory action.

Sadly, this is not the case with the financial system, but I will come back to this later on.

In financial markets, there is also a public side of market failure, that derives from two factors: transactions that take place in financial markets give rise to substantial externalities; the stability of financial markets is a public good.

Any transaction, to some extent, gives rise to information that in turn affects the behaviour of economic agents that embark, or might embark, in a similar transaction. In most transactions in the economy, such externalities are not relevant, as they do not generate any appreciable effect. In financial markets this is not the case. Financial markets create long assets from short liabilities in a word which is rife with information asymmetries, and trust has a central role to play in such a process. Economic agents, individually, can control some of the risks that characterise such a market, such as credit risk or insolvency risk, and this is why we have rules enforcing some degree of transparency in company statements for borrowers, company statements for lend-

[2] Akerlof (1970).

ers, and capital requirement for lenders. On the other hand, economic agents cannot individually control risks that arise from the functioning of the market as a whole, such as settlement risks and liquidity risks. This is obviously the reason why, besides regulations affecting individual market disciplines, we have developed regulations concerning markets, that often force economic agents to conduct certain transactions in regulated markets, and in most cases imposes a degree of control over the functioning of some markets.

At the end of the day, all these complex regulations serve the purpose of preserving trust through the containment of external effects: without this, inherently unstable markets, that connect the future with the present, cannot function efficiently.

Financial stability is a public good in the technical sense of the term, in so far it is a good where there is no rivalry in consumption, and from the enjoyment of which nobody can be excluded. Of course, as we all know, private production of a pure economic good is always inefficient: private agents cannot efficiently recover the cost of producing financial stability, and therefore they will always under-produce such a public good.

After this textbook-like a review of some basic economic ideas, we are in a position to make some general observations.

The overall cause of the financial crisis is often blamed on moral attitudes (greed), or upon highly technical issues (sub-prime mortgages, too many regulators in the United States, too many regulators in the United Kingdom, not enough cross-border regulating agencies, and so on).

I believe that both types of explanations miss a fundamental point. Greed has always been in the markets, and is indeed inherent to human nature. Sub-prime loans were truly horrible, but the point is that on the one hand the regulatory system allowed banks to gradually relinquish their function of credit selection, by allowing the runaway development of the origin-to-distribute model, and on the other hand no regulatory structure existed in the markets able to limit the systemic effects that the collapse in the value of such financial instruments would generate.

Blaming the faults on regulatory architecture on the other hand may be correct, but it begs the question *why* did we get the architecture so badly wrong, and gives the falsely comforting idea that if only we could get the details right, nothing ever as bad as this may happen again.

The point to me is simpler: governments across the world caved in to the mighty pressure of financial lobbies, and forgot the simple reasons that historically have brought about regulation in financial markets.

Let us examine how public policy abdicated its mandate *vis-à-vis* the two major market failures that we recalled above: the externalities problem and the public good problem.

FINANCIAL INNOVATION THEORETICAL ISSUES AND EMPIRICAL EVIDENCE IN EUROPE

*Bruno Rossignoli - Francesca Arnaboldi**

1. Introduction

Banking systems in industrialized countries are subject to ongoing change and questions about the main drivers of such change would promptly receive the following answers: trends in financial service demand; technological innovation; deregulation and subsequent regulation, known as *regulatory dialectic*; mergers, acquisitions and strategic agreements; competition; globalization; supply diversification; economic volatility.

These eight drivers of change had been predicted just less than three decades ago, at the beginning of financial system deregulation (Freeman, 1981). This process has been pursued with varying intensities according to the different institutional contexts.

In relatively more recent times – but far enough from the severe international crisis that has been crushing financial systems for almost one year and does not seem to be exhausted at the time of this Round Table on financial innovation – the Bank for International Settlements focuses on two significant factors for transformation of financial systems – namely technological innovation and persisting deregulation – and examined their benefits and risks in the light of the experience developed in the last decade of the past century.

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The deregulation of banking systems, in particular, promotes economic growth through improved allocation efficiency and a reduction of financial service costs. On the other hand, increasing attention has be devoted to the instability as a result from stronger competitive pressures and from the subsequent erosion of revenue margins, but particularly from the potential incentive to banks to restore these margins through bad policies, or even bad banking. Ultimately, it turned out that «Yet liberalised financial sectors are also more prone to costly misadventures, particularly if encouraged by a climate of macroeconomic instability. In a large number of industrial and emerging market economies, taxpayers have in recent years paid out a significant share of GDP to support and recapitalise failed banking systems. All too frequently, the subsequent macroeconomic effects in terms of lost output and rising unemployment have been considerably more costly. While we have not yet experienced the economic losses that might be associated with a major failure in payment systems, which now routinely process several trillion dollars' worth of payments a day, a few close calls in recent decades were wake-up calls as well» (BIS, 1997).

Under the ongoing pressure of the eight drivers of change, banks have pursued strategies aimed at achieving a competitive advantage, in order to create more value than their competitors. In relation to the company size and to market features, such strategies combine diversification of activities with cost leadership in a variety of ways, attributing a primary role to financial product and process innovation.

This phenomenon has always characterized the evolution of financial activities to a varying extent, but becomes more and more evident in the past fifteen years, particularly as a consequence of technological innovation and deregulation. Acceleration of speed and of formats can be envisaged, with changes – sometimes radical – in the processes and organizational structures of financial firms, with the creation of more and more complicated financial instruments and of secondary markets for trading, and with the development of engineering aimed at the transfer and subsequent allocation of specific risk types.

This paper includes multiple sections. It first provides the main definitions of financial innovation (Section 2.1) and discusses the related benefits (Section 2.2). Then it considers Italian banks as an example to discuss on certain profiles of technological innovation (Section 3.1) and of organizational change (Section 3.2). Finally, after a few necessary preliminary statements (Section 4.1), empirical evidence is provided on the financial innovation introduced by domestic banks listed on Euronext (Amsterdam, Brussels, Lisbon and Paris markets), London Stock Exchange and Borsa Italiana over the 2005-2008 period, as inferred from the relevant annual reports (Section 4.2). A total of 46 banks are reviewed, covering most of the respective markets in terms of total assets. Section 5 contains the conclusions and a few hints for discussion.

2. Financial innovation

The issue of innovation has been widely discussed in industrial economy. Tirole (1988), in particular, defines innovation as the act of inventing new products and processes for economic usage through licences, imitation, or mere adoption. Moreover, the author stresses the key role of *Research and Development* (R&D) in companies, as well as from the macroeconomic view point. Solow (1957) highlights that just a small fraction of per-capita growth is due to an increase in the capital-labour ratio, thus drawing attention on the role that technological advances play in welfare improvement.

Tirole points out to three subsequent steps in research: basic research, aimed at developing basic knowledge, and mainly carried out in universities and government agencies; applied research, associated with engineering; development, which allows to use products and processes commercially. These steps are followed by the «post-research stage», which allows innovation to spread through industry via licences, the imitation of patented innovations, or the adoption of non-patented innovations.

In the industrial economy, a distinction is made between product innovation and process innovation. The former outlines new products and services, while the latter reduces the cost for the production of existing goods. Indeed, this distinction is not always clear because, for example, product innovation for one company can turn into process innovation for another.

Shumpeter (1943) argues that monopolies and R&D are closely tied together and that, in particular, if research needs to be developed, the creation of monopolies should be accepted. Each innovation creates information that can be used by other companies at lower or no cost. While all companies are ready to use this information, none is willing to make the investments required, without a reasonable expectation to obtain an appropriate profit. This is generally achieved through the mechanism of patents, which allows a company to work as in a monopoly for some time, thus ensuring full return on its investment. It should be noted that a non-patented innovation can also be a source of profit if a monopoly is temporary created, for example because such innovation includes traits unknown to competitors or because too much time is required to imitate it. The trade-off of the patent system is that it encourages R&D, however reducing the dissemination of innovations and creating non-competitive conditions. In this context, R&D is treated as an investment with some peculiarities, as for example yield volatility.

2.1. *Definitions*

A unique definition can hardly be found for financial innovation. For Frame and White (2002), «Financial innovation represents something that reduces costs, reduces risks or provides an improved product/service/instruments». According to Solans «Financial innovation refers both to technological advances which facilitate access to information, trading and means of payment, and to the emergence of new financial instruments and services, new forms of organization and more developed and complete financial markets. To be successful financial innovation must either reduce costs and risks or provide an improved service that meets the particular needs of financial system participants» (ECB, 2003). Financial innovation is thus primarily defined as product and organizational innovation, which allows cost or risk reduction for the single bank and/or an improvement of the services for the financial system as a whole. At macroeconomic level, for example, the introduction of the Euro represented a significant «financial innovation» with respect to the monetary policy, to markets, and to firms.

A description of the models of innovation may be added to this first proposed definition of financial innovation. Early models in industrial economy can hardly be applied to the financial system. This has specificities that differ from some other economic sectors. First, the intangible character of services does not allow to store and transport them and, in particular, makes it more difficult to identify the distinctive features of each service. Moreover, the service supply chain shows a close interaction between the provider and the end user. For example, the client, who subscribed a deposit account, interacts with the bank in various situations, also with the goal of using the acquired service in the best possible way. In addition, the skills and know-how of those providing the service and confronting directly with clients have a significant impact on the quality of service itself. For some time, however, this central role of human resources in the bank's production process had no direct impact on the performance. It was partly due to poor bank transparency and partly to customization and to the heterogeneous character of services that did not allow a fair comparison between similar products/services provided by different firms. For example, in the case of factoring, services could have widely different and hardly comparable prices. Finally, as mentioned in the next section, the products offered by financial firms can be protected only in part through patents.

THE ROLE OF CONTROLS IN THE INTERNATIONAL FINANCIAL CRISIS

*Giovanna Tagliabue**

INTRODUCTION

We propose a reflection on the role of the Bank of Italy and CONSOB in the recent global crisis. The mandate of these supervisors is to ensure the measures crucial to protect and stimulate economic activity. Nothing had been anticipated in a timely way by these relevant actors, to permit actions able to affect the outcomes.

We show that, apart from reassurance and all kinds of justifications, and without arguing whether this was deliberate or not, the monetary authorities, CONSOB and ABI have clearly reported the risk of a world financial crisis too late. This experience has raised the awareness about the need to cooperate and coordinate their actions.

1. THE CAUSES FOR THE INTERNATIONAL FINANCIAL CRISIS

The impact of the great financial crisis that started in the United States with the implosion of «subprime» loans is getting more and more severe in Europe and in the rest of the world, with subsequent economic, commercial, social, and political imbalances in the individual states.

It is a shared opinion that the current situation digs its roots back in August 1971 with the termination of dollar conversion into gold and with

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the opportunity for the US to transform their currency, now in paper and as such «trust-based» and no longer tied to gold reserves, into a world currency.

The problem became more serious in 1987 when, under pressures from the banking environment, the Glass-Steagall law, enforced by the American Parliament after the 1929 crisis to prevent conflicts of interests among banks and companies subscribing shares and bonds, was repealed. This financial liberalization was promoted by Alan Greenspan, who then became president of the FED after being a member, in 1987, of the board of directors of J.P. Morgan, the first bank to take profit of this liberalization.

The significant and often incautious expansion of credit in the US after the 1992 recession is the third main factor accounting for the current severe financial crisis.

American banks, in fact, started to grant countless loans to customers whose creditworthiness was not to be fully relied upon. Such policy was encouraged, and partly even regulated, by the democratic administration of Bill Clinton: with the Community Reinvestment Act, in fact, a bank evaluation principle was introduced, based on the number of loans granted to citizens resident in areas qualified as «low income» to promote the integration of lots of immigrants, the so-called «ninja clients» (no income, no job, no assets), allowing them to obtain a house thanks to the exceptionally low interest rates in force on the US market at the time. In order to promote the purchase of property, loans equal to 100% of the value were offered, with low instalments and interests due upon extinction, and – even more uniquely – without any due certainty about the client's solvency.

The «insolvency risk» obviously remained, and was addressed through the adoption of the OTD (*Originate To Distribute*) model, a true operational technique by which banks could «dispose» of their loan risk by transferring it to third parties. In other words, bank credits were «packaged» into bonds meant for placing on the market.

This system produced two effects that were at the origin of the crisis: (1) banks gave up their traditional mediating and monitoring role, evaluating the creditworthiness of borrowers, and turned into actual «brokers»; (2) bank assets were subject to fluctuations on the financial markets.

With the sale of these loan packages to other investors, financial institutions could recover the loan amounts immediately, but could also grant new loans.

This fostered the property bubble while, in parallel, the quality of «subprime» loans declined compared to the «prime» loans.

The market realized that several borrowers were not refunding and/or would not be able to refund the borrowed amounts.

The subsequent mass insolvency of these particular borrowers forced banks to sell the property guaranteeing the granted loans, seriously affecting quotations on the property market.

In a globalized market, characterized by clear information asymmetries, the fear of insolvency ended up with affecting the holders of all bonds – those based on high-risk loans and the safe ones alike – even if it soon became clear that the idea of transferring risk was not limited to property loans, but involved a multitude of other uses (from loans to buy cars to credit cards and loans to perform bank mergers).

In order to make up for the decline in profitability, US banks turned to foreign banks with offers of «packages» known as MBS (*Mortgage Backed Securities*) whose sale was, however, subject to rating by companies in charge of estimating the insolvency risk. This gave place to the «Investment grades», i.e. MBS containing «prime» mortgages, thus less risky, followed by the «Mezzanines», with a medium risk, and the «Equity», i.e. the high-risk subprimes.

The difficulty in placing the high-risk MBS led banks to create a re-rating, i.e. divide them into groups by default probability, while undertaking to give priority to the payment of the best securities.

Thus, an initial mix of expansive monetary policy, combined with ineffective regulation and with the subprime loan crisis, had caused troubles to banks exposed in terms of securitizations, undermining the stability of their accounts.

The losses of these investment banks were tied to their high debt-capital ratio: if, for some reason, fund provisions were not constantly replenished and/or fund lenders to the investment banks did not renew their loans, the bank suffered a crisis of liquidity and, thus, of solvency, creating the assumptions for insolvency.

Most parties blame the FED for the crisis and, particularly, for a US monetary policy that is judged too expansive.

This belief is supported by a number of factors [1], first and foremost the fact that the excess debt of American households (internal imbalance) had contributed to the low-rate policy implemented by the FED and that such policy had remained in place despite the depreciation of the dollar and with a deficit of current accounts equal to an average 5% rate of the GDP in the past few years (external imbalance).

During the 18-year governance of Greenspan, in fact, the widest expansion of speculative finance in the world history had taken place, and the cur-

[1] Barucci E. - Ferri G., «La FED dal trionfo alla crisi dei subprime», *Il Riformista*, August 7, 2008.

rent emerging problems point out to a world-wide crisis, also considering that American financial and banking groups have placed the «trash» securities in Europe but, particularly, in Asia, where the assets of major banks and financial companies are mainly made up of US securities rated AA as well as AAA by the «independent» agencies, including Standard and Poor's, Moody's, and Fitch.

The result was the creation of a huge monetary mass, made of fictitious wealth (paper money of the central bank) and of virtual wealth (electronic wealth), which escapes systematic monitoring and brings huge profits in commissions alone, thus undermining the real wealth of a country through its negative impact on consumers, companies, and local entities.

By way of example, according to the *Bank for International Settlements* (BIS) in Basel, OTC (*Over The Counter*) [2] financial derivatives, i.e. the ones negotiated outside the regulated markets, amounted to US $ 95 billion in 2008 [3].

The opportunity to transfer the risk of the granted loans resulted into a lack of interest of banks in monitoring the possibility for debt reimbursement.

Facing the lack of supervision by the monetary authorities, no US authority (government, Congress) had taken measures, not even to ensure compliance with the minimum security standards.

Many wondered about the reason for this lack of regulation.

According to Zamagni [4], the American Congress had perceived the severity of the problem as early as in 1994, and had approved a law that forced the Federal Reserve to set standards for loan-granting operators that, until then, lacked any kind of regulation. The law was boycotted by Greenspan, who accounted for his behaviour by noting that derivative transactions took place among highly qualified professional operators and that, based on the Black-Scholes-Merton model for determination of the value of derivatives, looking at the price of an asset would have been enough to give the fair value to the combined security, whatever the connected risk.

[2] Derivatives are defined as OTC (*Over The Counter*) if implemented directly by two counterparts tied by a contract fully adjustable according to the respective needs. Due to this flexibility, often connected with the presence of complex clauses, the value and the risk of most OTC derivatives are often difficult to assess. Such instruments are thus different from listed derivatives, whose value is traded on an official market through standard contracts, and having a centralized entity as their counterpart. Listed derivatives are indeed base contracts (futures, options, swaps), whose value and risk can be inferred.

[3] Bank for International Settlements (BIS), *Quarterly Review*, Basel, September, 2008.

[4] Zamagni S., *La lezione e il monito di una crisi annunciata*, Università di Bologna, Workshop del Departmento di Scienze economiche, October 26, 2008.

THE LESSON AND WARNING OF A CRISIS FORETOLD: A POLITICAL ECONOMY APPROACH

*Stefano Zamagni**

1. Introduction

The financial crisis which began in summer 2007 in the USA and then spread contagiously throughout the rest of the world, is systemic in nature. Indeed, it is not a local or regional crisis. It is the inevitable starting-point of a process which for more than thirty years has changed at its very roots finance's way of being and doing, thus undermining the very bases of that liberal social order which is at the core of western civilization. The nature of the causes of the crisis is two-fold: those immediate, which speak of the specific characteristics adopted in recent times by the financial markets, and those remote, which blame aspects of the cultural matrix which accompanied the transition from industrial to financial capitalism. From the moment that that epoch-making phenomenon which we call globalization began to take shape, finance not only constantly increased its quota of activity in the economic sphere, but it has progressively contributed to transform both people's cognitive maps and their value systems. It is to this latter that one refers today in speaking of the *financialization* of society. «Finance», literally, is everything that has an end; if this escapes from its historical river-bed, finance can only produce perverse effects.

In what follows, I will briefly, for reasons of space, dwell first of all on the proximate causes of the crisis and then on those remote. I will not concern myself either with the many effects of the actual collapse that is sweeping across the world, nor with the ways out of it. On both of these

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issues the contributions are by now lined up. My intention is not so much to add statistical-economic evidence or further descriptions of the mechanisms to the now vast, detailed literature about the subject (cf. Morris, 2008; Prasad, 2009; The World Bank, 2008; Blanchard, 2008), but rather the wish to make emerge from the facts which recount the financial disaster that misleading ideology – disguised as apparently scientific – that specific school of economic thought, dominant today, known as *mainstream* economics, from which have drunk market agents, government political authorities, and controlling agencies. It is an ideology which, starting from the anthropological assumption of *homo oeconomicus* – which is an assumption, note, and not a proven proposition – or rational egoism, comes to the conclusion, after a long journey strewn with subtle theorems and econometric investigations, that the markets, including those financial, are institutional set-ups capable of self-regulation, in the dual sense of bodies capable of giving themselves rules for their own functioning and also of ensuring that they can be enforced.

The bridge which links that assumption to such a conclusion is the ethos of efficiency, the real and proper regulative principle of post-modern society. Notwistanding the conventional view to the contrary, efficiency is not a value-neutral concept. For it postulates Benthamite utilitarianism as an ethical precept. Whether one adopts Pareto's ordinal version or the cardinal notion of efficiency, defined as a measure of the gap between a given result and the first best solution, utilitarian philosophy is always the frame of reference. Needless to say, there is nothing wrong in proclaiming one's adherence to utilitarianism, provided one does not pretend to consider it as a positive instead of a normative category of discourse. It is from the pervasiveness in present day economic culture of the principle of efficiency that comes that «performative myth» for which to say means to do, and therefore something becomes *real* through the mere fact that *we do it*. It is this general mindset which provided the fuel for the speculative machine which was well able to make use of financial instruments and products with a «firepower» never before seen. Think only of automatisms such as computerised program trading, somewhat analagous to a particle accelerator, which amplifies, in a procyclical way, the tendency to rise and fall of the exchange market. But it is clear that a speculative bubble of proportions like that we know today would not have been able to happen without that «mental bubble» which made many people believe it was possible to reduce the risk to zero, whenever they might succeed in spreading it in an appropriate way among a sufficiently high number of operators.

But the risk, when it is endogenous in nature, can be moved or reduced, never annulled, as we will see. Such a sense of omnipotence, supplied over the years by financial euphoria, took over the mental habitus not only of the traders and financial institutions, but also of the political authorities, media centres, and not a few university and research circles. The self-referencing of finance – finance which becomes an end to and in itself – has meant that Plato's maxim has been forgotten: «The only good coinage with which it is necessary to change all the others is *phronesis*, intelligence which remains on guard». A maxim which the illustrious American economist J.K. Galbraith rendered fairly prosaically thus: «It is good that occasionally money is separated from the imbeciles». And it is good that this happens, because it is many innocent people who have to pay for the *hybris* of the imbeciles in the sense of Leon Bloy. As history teaches us, the *phronos zeon*, the anger of the gods which accompanies the *hybris*, always falls on the last and the most vulnerable, and it is simply scandalous that this can happen in societies which call themselves open and civil.

2. On the proximate causes of the crisis

Allowing the subprime mortgage loan sector to become a real financial casino is certainly one of the first immediate causes of the current crisis (already in 1926 J.M. Keynes anticipated that «when accumulation of capital in a country becomes the by-product of the activities of a casino it is possible that things go wrong»). In the USA, house ownership has gone from 44% in the 1940s to around 66% in the 1970s, a period during which no particularly significant losses or gains have been registered. Up to 1969, Fannie Mae was a government agency, whose function was, on the one hand to buy loans from the banks and other savings administrators to allow them a constant flow in the supply of loans, and, on the other hand, to fix the benchmarks. At the same time, Fannie Mae was financing its operations selling bonds on the finance market. The situation began to change at the end of the 70s, when private operators on Wall Street, trying to emulate Fannie, packaged convertible loans into bonds, creating products that were ever more convenient because riskier. In order not to lose market shares, Fannie ended up doing the same, thus sustaining the spiral of abuses.

In what sense can one speak of abuses? To respond to this, remember that according to the accounting rules in force, banks are obliged to register as assets on their balance sheet any loans granted. But doing this, banks discovered that they soon reached the threshold of the minimum capital which the supervisory authorities order them to have available to cover withdrawals.