

## The lesson and warning of a crisis foretold: a political economy approach

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**Abstract** 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 30 years has changed at its very roots the financial 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 twofold: 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 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 also 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. The article mainly deals with the remote causes of the crisis with the aim of showing the consequences of the misleading ideology diffused by *mainstream* economics, from which have drunk market agents, government political authorities and controlling agencies.

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## 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 30 years has changed at its very roots the financial world, 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 twofold: 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 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 also 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 escape from its historical riverbed, finance can only produce perverse effects.

In what follows, I will briefly, for reasons of space, dwell first on the proximate causes of the crisis and then on the remote ones. I will not concern myself either with the many effects of the actual collapse that is sweeping across the world, or with the ways out of it. On both these 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; World Bank 2008; Blanchard 2008). Rather I wish to make emerge from the facts which recount the financial disaster that misleading ideology—disguised as apparently scientific—diffused by the 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 the financial markets, are institutional setups capable of self-regulation, in the dual sense of bodies capable of giving themselves rules for their own functioning as well as 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. Notwithstanding 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 the 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 seen before. Think only of automatisms such as computerised program trading, somewhat analogous to a particle accelerator, which amplifies, in a pro-cyclical way, the rise and fall tendency of the exchange market. However, it is clear that a speculative bubble of proportions like the one 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.

However, 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 (date) 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, 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 particular 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 1970s, when private operators on Wall Street, trying to emulate Fannie, packaged convertible loans into bonds, creating products that were ever more convenient but riskier. In order to not lose market shares, Fannie ended up doing the same, thus sustaining the spiral of abuses.

In what sense can one speak of abuses? In order 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. However, by 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. Furthermore, they also discovered that such an obligation constituted an effective impediment to the increase in the volume of dealings and therefore in their own profits. The bravura—so to speak—is therefore the transformation of liabilities into assets, conferring on clients' debts the quality of shares which, as such, can be re-sold on the financial market. And therein lies the meaning of that peculiar invention which is securitization. Securitization provides for the issuing of CDOs (*Collateralized Debt Obligations*), first introduced in the USA in 1987, through vehicle societies (*SPV, special purpose vehicles, and Conduit*) or *Asset Backed Commercial Paper*, short-term securities guaranteed by banking assets, or again by re-securitization, operations in which the underlying assets are structured securities. Born as instruments to hedge from credit risk, derivatives have seen a powerful expansion over the last few years: from about \$100,000 billion in 2001 to more than \$600,000 billion at the end of 2007. In relative terms, the more substantial growth was that of CDSs (*Credit default swap*), which in the same period went from \$750 billion to about \$59,000 billion—almost four times the USA GDP (For details, see Mason 2009).

As Linciano (2008) explains, unlike what happened in the traditional manner with distribution of credit—a way which imposed maintaining in budget loans granted to clients, i.e. the so-called 'originate and hold' model—the new way gradually affirmed in the last quarter of the century, and known as OTD (*originate to distribute*) model, says financial support granted can be securitized or spread out among a vast group of agents. This new way, which at the start was greeted with sympathy, since it was able to loosen the constraints of access to credit on the part of the poorest sectors of the population, in time ended by profoundly changing banks' approach to credit (they were interested in transferring increasing quotas of their own investments to other financial institutions) and encouraging opportunistic and irresponsible behaviour. The reason soon became evident: the opportunity to transfer down the distributable financial risks notably reduces the bank's interest in monitoring the possibility of reimbursing debtors.

Faced with such a new situation, the American authorities not only did not intervene to at least try and guarantee respect for standards, but what is worse, they left to private rating agencies the task of deciding themselves the level of security for the new financial instruments. Bear in mind that derivative products such as CDSs are negotiated in non-regulated and above all non-controlled markets, with over the counter operations among banks. This allows less competition, and higher profit margins, but prevents evaluating the risk of the partner. Securitization thus began to spread like an oil stain, with the subprime mortgages acting like a flywheel within the process. Private enterprises, recognised by the US government, such as Moody's and Standard and Poor, but not subject to any regulation, attribute ratings to various debenture loans to safeguard—so to speak—the public faith of subscribers. However, given that the controller is remunerated by the controlled, it is obvious that it is sufficient to pay well to obtain a high rating—the well-known 'Triple A'—even if the underlying loans bear high risks. (On the eve of its failure,

Lehman Brothers had obtained an A!). Today we are able to say that without the collusion of the rating agencies, the sub-prime phenomenon would not have been revealed in the violent manner we now know, because it would not have been able to reach the critical mass and above all would not have been able to feed those herding phenomena, which hook speculative bubbles.

Spontaneously, the question arises: why did not the public regulators intervene in time to modify the legislation in force to put an end to the conflict of interest which involved most of the rating agencies? This is the second immediate cause that we are concerned with. The fact is that neither the government nor the American Congress has ever decided, before now, to intervene in this area. In order to tell the truth, once in 1994 the Democratic Congress, sensing the seriousness of the problem, approved a law on 'Homeownership opportunity and equity protection' which obliged the Federal Reserve to fix standards for mortgage lenders who were not subject to any other specific form of regulation and ensure they were respected. However, Alan Greenspan, the powerful FED President (1987–2006), blinded by the ideology of the 'Objectivist Movement' founded in the early fifties by Ayn Rand, an influential Russian writer emigrated to the US and author of *Atlas Shrugged* (1952) and of *The Virtue of Selfishness* (1957), repeatedly refused to implement that law. The argument used was that the exchange of derivatives happened between highly qualified professionals who certainly had no need of safeguards. Moreover, self-regulation was the only safe basis for a modern financial system, since the greed attitude by financial agents was the most effective self-defence mechanism. This trust Greenspan grounded blindly on the famous Black–Scholes–Merton model for determining the value of derivatives. A model according to which it was sufficient to look at the price of an asset and not also at the risk which it bears to give fair value to another asset—let us say, an option—which travels on its back. This is one of the major consequences of the celebrated Rational Expectations Hypothesis (REH), according to which markets tend, naturally, to equilibrium. How such a small miracle can happen? Simply because REH does not connect the excessive movements of asset prices to financial risk. By suggesting to banks and regulators to adopt the so-called value at risk model—according to which risk is calculated on the basis of minor deviations around the equilibrium value of asset prices—the risk associated to strong oscillations of long-run prices can be forgotten. As shown in Frydman and Goldberg (2007), already scholars such as F. Knight, F. von Hayek, H. Minsky, among others, had warned against such a methodological mistake.

An important sign of the serious aporia contained in the model could already be seen in 1998—the year after Scholes and Merton received the Nobel Prize for Economics—with the failure of LTCM (*Long-Term Capital Management*), the hedge fund on whose managing council sat both scholars. However, even faced with such evidence, Greenspan did not deem it necessary to intervene, apart from changing his mind a few years later as we shall see in Sect. 4. Not even in 2002, when after the famous 'corporate scandals' (Enron and Worldcom in 2001) the Sarbanes–Oxley law was approved, was the opportunity taken to provide a remedy to the increasing conflicts of interest among the heads of both rating agencies as well as many financial promoters 'advising' clients to buy securities which only a

short time afterwards would be useless. As one can verify, the Sarbanes–Oxley bill was concerned with conflicts of interest in the governance of corporations, but paradoxically excluded from its sphere of application the rating agencies and the enterprises dedicated to financial intermediation. With the result that these subjects acquired such an influential power on politics, one could forget the famous principle of separation of powers on which the liberal model of social order is based. Moreover, it is necessary to say that perhaps the same public regulators were not in a position to know, with some approximation, the actual volume of the speculative transactions. The reason soon became clear. At the end of the 1990s, the commercial and investment banks began to start a large number of off-budget entities sponsored by one or more of them. These are the so-called OBSE (*Off-balance Sheet Entities*): autonomous bodies which do not appear in the balance sheet of the sponsoring banks, to which they pay huge commissions. Such are the carrier vehicles for special motives which, once created, move into a shadowy cone which makes them completely opaque to the outside observer. In such conditions, to speak of transparency in favour of savers is no more than wishful thinking.

A third proximate cause of the financial crack must be cited, i.e. *leverage excess*. Remember that the volume of speculative transactions in the course of the last quarter of a century has been carried out almost entirely with money taken on loan. A normal leverage relationship for a hedge fund or private equity fund is of the order of 30 to 1—that is, \$30 debt against \$1 of real capital. (Five years ago, Morgan Stanley was one of the five large American investment banks which obtained from the SEC dual authorization to go into debt up to a relationship of 40 to 1 with respect to its capital and to substitute external controls with self-regulation.) Well, in the financial institutions dedicated to sub-prime mortgages, in the last few years, the leverage relationship became practically infinite, given that such institutions had a real capital tantamount to zero. What the USA is now waiving was an era of financial thoughtlessness: credit purchases with no cover, mortgages granted to everyone on the entire value of the property, credit cards distributed to whomever and recourse to hyper-sophisticated financial instruments. Up to a certain point, the game ensured astronomical profits—or it would be better to say rents—but as soon as investors began to look inside the black box, panic set in. To be precise, things started to go wrong when, beginning from 2005, the increases in interest rates decided by the FED made the rate of sub-prime mortgages more onerous, which increased the risk of insolvency among the more exposed, most vulnerable families. The lack of a secondary CDO market—one recalls that it is thanks to the CDO that American banks were able to grant mortgages with open arms—meant there was no smooth adjustment of their prices to the new conditions of risk. When insolvency became obvious, the price adjustment happened all at once, thus causing wild devaluations—even excessive—in the operators' assets held in the CDO portfolio. Collapse was an immediate and logical consequence (Cooper 2008).

It is known that ever since money was invented, men have dedicated themselves to producing counterfeit money. At the time of metallic circulation, this happened by defrauding on the amount of precious metal contained in coins; then, with the excessive issue of banknotes; and today, by the inflation of credit. As already anticipated in the 1940s by the French economist Jacques Rueff, today the refined

way of creating false money is that of launching a speculative bubble. Alexandre Dumas, in his book *The Black Tulip*, describes with the pen of a great writer and with great anticipation of time, the mechanics of speculative logic with reference to the first great speculative bubble of 1636–1637, known as ‘tulip mania’. After various attempts down the centuries, it can be said that the world of finance has succeeded, at least in part, in subtracting from the state and politics the power of monetary control. That is why the current crisis will find no definitive solution until politics and civil society do not take back in hand the governance of financial activity, directing it to its natural goal which is that of being at the service of investments, production and exchanges. According to the famous saying of Baron Luis: ‘Give us good politics, and I will give you good finance’.

What has been said heretofore brings me to the fourth of the proximate causes: the 1999 abolition of the 1933 Glass–Steagall law which sanctioned the separation between commercial and investment banks—the former subject to massive controls; the latter to more bland forms of control. The wind of Reaganesque deregulation blew so strongly that it armed Gramm–Leach–Bliley to whom that abolition is due with an easily imaginable outcome. Not content with that, Gramm set himself up as champion of the law on *Commodity Futures Modernization* signed by President Clinton on 21 December 2000, just before leaving the American presidency. The effect of that norm was to remove derivative financial products from the regulation and supervision of both the SEC and the Commission for the Commerce of Futures, which allowed an unprecedented expansion of derivatives exchanged outside the stock exchange market. Just to give a rough idea of the increase in the volume of business associated with derivatives, consider that from 2000 to 2007, the subscription value went from \$100 trillion to \$600 trillion, a figure which corresponds to about 10 times the world GDP (cf. Shiller 2008).

To the investment banks, therefore, were added hedge funds and private equity funds that created credit outside the banking channel and speculated on the financial markets with loaned money. According to the opinion of the president of the House Banking Committee, Barney Frank, more than half of the credit created in recent years comes from institutes not subject to any regulation. However, there was no need to get alarmed—or so it was thought—because on various occasions the Bush administration stated that these new financial players offered transactions to consenting adults aware of the risk they might have to face. One does not need to have any great economic preparation to understand that reasoning of that kind completely forgets to take into account the indirect effects which fall on subjects who have not taken part in the transactions and which are called, in economic theory, pecuniary externalities. It is a sad fact that economic theory, while devoting great attention, at least from the times of Pigou, to technological externalities, barely mentions pecuniary externalities, whose massive presence in an economy jeopardizes the sustainability of the liberal model of social order. To tell the truth, in 2005, Greenspan had addressed the Senate Banking Committee inviting it to take into serious consideration the level of risk to which Fannie and Freddie were exposing the whole system, but the measure which some Republican members of Congress had suggested for such a need was never voted on, due to the strong opposition, too, from the Democratic Party.



### 3 The remote and structural causes of the crisis

The causes described in the preceding paragraph are proximate because, although sufficient to unleash the current financial crisis, they are not also necessary. In fact, the crisis would have happened anyway, albeit in a different form, and with disturbances different from those of the sub-prime mortgages. When the storm knocks down the house, the principle cause is the structural weakness of the building, even though it is true that without that disturbance, even the house on sand would have remained standing. The structural causes of the crisis will be grouped into three main blocks.

The first concerns the radical change in the relationship between finance and production of goods and services which has taken place in the course of the last 30 years. Starting from the middle of the 1970s, the majority of Western nations packaged their promises of pensions in investments which depended on the sustainable profitability of the new financial instruments. At the same time, the creation of these new instruments gradually exposed the real economy to the whims of finance, generating an increasing need to set aside the increasing quotas of value added for the remuneration of savings invested in them. The pressure on businesses deriving from the stock exchanges and private equity funds transferred greater pressure in other directions: on directors obsessively induced to continually improve their management performance with the aim of receiving increased stocks options; on consumers to convince them, through the use of sophisticated marketing techniques, to buy more even in the absence of purchasing power; on businesses of the real economy to convince them to increase their shareholder value. And thus it happened that the persistent request for ever more brilliant financial results began to rebound, through a typical trickle down mechanism, on the whole economic system, until it became a cultural pattern. In order to pursue an ever more radiant future, the present was thus forgotten.

After more than 30 years of the diffusion and growing importance of financial activities in the economic system, the state of the economy shows worrying signs of weakness under three specific aspects. First, the diffusion and growing importance of financial activities in the economic system—which to function needs to include in its logic an increasing number of national economies—has progressively replaced intersubjective relations with anonymous and impersonal transactions. The limitless search of capital gains has meant that values such as loyalty, moral integrity, relationality and trust were gradually pushed aside to make room for principles of action aimed at the pursuit of short-term results. In this way, it was possible to spread the disastrous conviction on the basis of which liquidity of financial markets would be a perfect substitution for trust. At the same time, since the stock exchange value is all the investor is held to consider when he has to make his decisions, it has seemed that growth could easily be built on debt: this is the ultimate meaning of the process of the diffusion and growing importance of financial activities in the economic system. What is the really dangerous consequence of this ‘new’ culture? That of distorting the way of conceiving the link between earned income and income from speculative activity. If the diffusion and growing importance of financial activities in the economic system is sufficiently achieved—it was believed—there is no need for



families, to provide for their own needs, to draw mainly from their own salaries and wages. Dedicating themselves to speculation, they can obtain by other means the necessary income to attain increasing levels of consumption. What is more, if and according to the measures in which wages reductions encourage the profitability of businesses quoted on the stock exchange, it can happen that families can more than compensate for the reduction in earned income through increases in stock exchange income. In such a way, the conflict endemic in post-modern society, between the figure of the worker and the consumer—to produce shareholder value businesses must restructure with operations such as outsourcing, mergers and acquisitions, because that reduces not just the salary but also the price of consumer goods—would be solved by the figure of the investor–speculator. The diffusion and growing importance of financial activities would induce the small or large saver to become a speculator, shrewd or otherwise.

Therefore, we must not be surprised if, in the course of the last quarter of a century, on the one hand, the volatility of work relations (known as precariousness, which has very little to do with flexibility) has increased to levels never seen before, while on the other hand, in all the developed countries of the West, the inequality in income distribution has increased. As the October 2008 OECD Report (*Growing unequal? Income distribution and poverty in OECD countries*) tells us, the gap between the rich and the poor has noticeably increased in the period indicated. It is easy to understand the chief, but not the only reason for this: when income comes from work (manual or intellectual), the gap between the higher and lower paid people will never go beyond a certain threshold; this is not the case when income comes from speculative activity or when some remuneration is linked, as happens in the case of managers' stocks options, to stock exchange trends. When the unitarity of the person is artificially broken up in figures such as the worker, the consumer and the investor–speculator, the outcome can only be disastrous. Already Keynes in his well-known essay of 1926, *The end of laissez-faire*, had identified with clarity and foresight that the causes of the 'greatest economic evils of our time [lie] in the great inequality of riches which happen when particular individuals, benefitting from positions or particular abilities, succeed in gaining an advantage from uncertainty and ignorance and when, for the same reasons, the corporations often become a lottery which makes reasonable business expectations fail'.

The third sign of worrying weakness I hinted at above is the spread at the level of popular culture of the ethos of efficiency as ultimate criterion of judgment and justification in the economic activity. On the one hand, that led to the legitimisation of greed—which is the best known and most widespread form of avarice—as a sort of civic virtue: the *greed market* substituting the *free market*. 'Greed is good, greed is right', cried Gordon Gekko, the protagonist of the famous 1987 film, *Wall Street*. On the other hand, the ethos of efficiency is at the origin of the now systematic alternation between greed and panic. As more than one commentator has tried to explain, it is not to be concluded that panic would be a consequence of irrational behaviour on the part of the economic agents. Panic is no more than euphoria with minus sign up front; therefore, if euphoria, according to the prevailing theory, is rational, so is panic. The fact is that it is the theory which is aporetic, as I will explain in the next paragraph.

But how has the process described so far been able to reach the level of pervasiveness and incidence that we are all aware of today? Without the scientific support of a certain school of economic thought, things would not have gone as they did. Before giving reasons for this statement, there is an indispensable premise. Unlike what happens in the natural sciences, economic science is strongly under the influence of the double hermeneutic, according to which economic theories about human behaviour impact, more or less, sooner or later, on the behaviour of man himself. Which is tantamount to saying that theorisation in the economic sphere never leaves its area of study unchanged, since it not only shapes the cognitive maps of the economic agent, but also indicates the way to be followed if one wants to achieve the aim in a rational manner. Now, if the aim is maximization of profits (or some other specification of the objective function), and if, as is obvious, the aim of an action prescribes the actions required to achieve it, the hermeneutic circle is soon closed. It is for this fundamental reason that the economist cannot take refuge behind a presumed axiological neutrality at the time of producing models and theories, above all when he is aware of the fact that the products of his scientific work produce a certain way of thinking and are taken as a point of reference by political decision makers.

In the specific matter we are concerned with, where was the economists' absence of social responsibility chiefly shown, an absence which consisted in not having paid attention, at least, to the principle of precaution in suggesting certain courses of action? In the first place, in having credited the belief that efficiency is an objective criterion (that is, neutral with respect to value judgements) of choice between opposing alternatives. As clarified above, one can utilize the criterion of efficiency, and on account of it take decisions, only after the goal to be pursued has been fixed. This is tantamount to saying that efficiency is a means to an end and not an end in itself. Therefore, to maintain that the behaviour of bankers and traders—who en masse threw themselves into the game of financial speculation in the last 20 years—is legitimized by their adherence to a criterion of rationality aimed at ensuring an efficient allocation of financial resources, is at least a tautology, a sign of glaring methodological naivety.

There is a second area in which the mainstream economic thought was decisive in contributing to defining the financial disaster: the theoretical background which strengthened the principle of maximization of shareholder value. In short, it is this. There are three conceptions with which the micro-economic theory looks at corporations: the firm as association, the firm as coalition and the firm as commodity. The first sees the firm as a community, in which various interested parties participate (workers, investors, clients, suppliers, territory), co-operating to attain a common objective, and which is organized to last some time. And this is the idea—note—from which the American 'corporation' was born, which in origin was a non-profit body the governance of which was borrowed from Benedictine and Cistercian monasteries. According to this view, the corporation is a good in itself and as such it cannot be left to the whims of the market, particularly the financial market. The conception of the firm as a coalition, on the other hand, was developed from the pioneering contribution of the Nobel prize winner Ronald Coase, who in his famous 1937 essay, *The Nature of the Firm*, defended the thesis according to

which the firm arises to save on transaction costs, that is the costs of market use. Every market negotiation, in fact, implies specific costs; therefore, a firm has reason to exist as long as the transaction costs exceed the functioning costs.

Finally, from the 1960s, in economics there began to take shape, until becoming dominant today, the idea of the firm as commodity, which, as such, can be bought and sold on the market like any other commodity. It is, therefore, nothing but a *nexus of contracts* which, depending on the conventions of the time, are initialled by a plurality of subjects each looking for the maximum individual profit. Well, if the firm is nothing more than a commodity, it is obvious that the only class of stakeholder who merits attention is the shareholder, for the obvious reason that to sell one needs an owner, and on the other hand, whoever is buying a firm, paying a price for it, becomes its owner. Should we be surprised, then, if starting from such a conceptualization of the firm, one concludes that the aim of management is that of maximizing the value for the shareholder-owner? One bears in mind that it is the principle of the shareholder's value which inspired in an ideological sense the process of the diffusion and growing importance of financial activities in an economic system. This is the principle which leads to enhance quotations on the stock exchange and assign all free cash flow to the shareholder—the cash which remains once all operative, financial and fiscal costs have been honoured. In order to increase the profits he expects to collect, the shareholder-owner of the firm takes managers into partnership through recognition of a remuneration also linked to capital returns—stocks options are the best known tool, but not the only one. If the management is not performative, the firm's quotations will fall and it will pass into the hands of others who will seek to remedy the loss of efficiency. However, for all of this, it is necessary to consider the firm as commodity! Now, leaving out of consideration the abuses of power on the part of managers, very frequent in recent years, it is the theoretical foundation of the shareholder's value which is too weak, as I have argued in Zamagni (2006).

Finally, it is worth saying something about a third precise responsibility of the profession of economists in this matter. As recalled in Sect. 2, the theoretical model on which the creative financial agents have built their edifice of structured securities—securitized loans, re-packaged in synthetic bonds as CDOs—is the famous Black–Scholes–Merton model, drawn up in the 1970s in the wake of earlier intuitions of R. Lucas, the noble father of the theory of rational expectations who received the Nobel Prize for Economics in 1995 (Myron Scholes and Robert Merton received it 2 years later). The aim of the model was to study the evolution over time of the price of the financial instruments and its main conclusion was that, under certain conditions, it is possible to eliminate the risk of investments. In the motivation of the Nobel prize written by the Swedish Academy in December 1997 one reads: 'Banks and investment banks regularly use the laureates' [Merton and Scholes] methodology to value new financial instruments and to offer instruments tailored to their customers' specific risks. At the same time they can reduce their own risk exposure in financial markets'. In the October 1997 edition of the *Bulletin* of the Harvard Business School—to where Merton had recently transferred from nearby MIT—one reads: 'In fact, using Merton's formula, it becomes possible to construct a portfolio that is virtually risk-free' (*sic!*). Why 'virtually'? For the

simple reason that events which could invalidate, the conclusions of the model were considered so rare that they could be forgotten. These are events of the ‘black swan’ variety—an expression which entered into common use from 1697, when a team of Dutch explorers came across a black swan for the first time in Australia.

Why has reality then ‘disobeyed’ the theoretical model? The answer comes from the same Alan Greenspan, who, having denounced in the *Financial Times* of 17 March 2008, ‘the models too simplistic to capture reality’, on 23rd October 2008, before the American Congress Committee of Government Oversight and Reform, to the question raised by the chairman: ‘You found that your view of the world, your ideology, was not right—it was not working?’ answered: ‘Absolutely, precisely. You know, that’s precisely the reason I was shocked, because I have been going for 40 years or more with very considerable evidence that it was working exceptionally well’ (C-SPAN Video Library 281958, available at <http://www.cspa-narchives.org>). He further added: ‘In recent decades, a vast risk and pricing management system has evolved, combining the best insights of mathematicians and finance experts supported by major advances in computer and communications technology. A Nobel Prize [in truth, three Nobel prizes] was awarded for the discovery of the pricing model that underpins much of the advance in derivative markets. This modern risk management paradigm held sway for decades. The whole intellectual edifice, however, collapsed in the summer of last year because the data inserted into the risk management models generally covered only the past two decades, a period of euphoria’ (Ib.). In other words: it’s the black swans’ fault! Nevertheless, already in 2007 in his bestseller *The black swan* Nicholas Taleb had anticipated what would then begin to happen from July 2008 onwards. When a single thought in the management spheres emphasizes the role of debt as a determining factor in creating value for shareholders it is obvious that the accounting principles—such as fair value, mark-to-market—are constructed as if the crisis were never to be here. And if it happened, it was the responsibility of the agents who behaved in an irrational manner!

To look at a comparison, it is interesting to re-read the conclusion reached in 1965 by Paul A. Samuelson in the famous article in which he introduces for the first time the ‘efficient markets hypothesis’. According to this hypothesis, asset prices reflect in each instance all the information available, and the price of an asset is the best estimate of its intrinsic value and thus provides the proper signals for resource allocation. Having formally shown that the ‘movements of share prices follow a random walk, a process in which each variation is completely casual and unpredictable’, Samuelson concluded: ‘One should not draw too many consequences from the theorem I have just demonstrated. In particular, it does not follow that the real competitive markets work well’. An example, this, of intellectual humility and political wisdom. (Actually, as Shafer and Vovk 2001, later showed, Samuelson had demonstrated that the process describing the movement of share prices is a martingale and not a random walk. Cf p. 227). In an interview published in the Italian newspaper *Corriere della Sera* of 20th October 2008 Samuelson stated: ‘I the undersigned and some colleagues from MIT and the Universities of Chicago, Wharton, Pennsylvania and many others, risk suffering some rude treatment when we will meet Saint Peter at the gates of Paradise’ (p. 9). This

statement forms a pair with that of Edmund Phelps, also a Nobel laureate, who in his article of 11th November 2008, published again in the *Corriere della Sera*, had written: ‘The banks have spoken about the decline in house prices as if it was the consequence of some shock...In fact there have been no earthquakes, periods of drought or other external factors to produce the fall in prices. The main cause has been a forecast based on *completely erroneous* theoretical models’. (My italics). Moving along a slightly different line, Nicole El Karoui, the famous French scholar from the University of Paris VI to whom is due the mathematical infrastructurization of the random calculation on the base of which derivative models were constructed, stated: ‘I believe that in this crisis mathematicians have played the smallest role, even though I do not wish to deny every responsibility. At times they have behaved like engineers who design cars that are too fast...Perhaps the mathematicians have not explained well the risks of these products, but we are not the primary responsible for this crisis. The major investors who bought derivatives had the instruments for understanding their significance’ (*Il Sole 24 Ore*, 26th October 2008). The simile conveys the idea, but it is hardly fitting: first of all, because even an expert in mechanical engineering is in a position to evaluate the risks of excessive speed; second, because in the case of traffic circulation there are speed limits placed there on purpose. What is ultimately wrong in the Black–Scholes–Merton model? Two basic things.

The first one is that this model implicitly refers itself to a centrally planned economy. As clearly explained by Buiter (2009), the model under consideration utilizes dynamic optimization techniques to arrive at an equilibrium solution. As mathematical programming teaches, to achieve optimality one has to assume that the influence of the infinitely distant future on the objective function today be zero. Now, where does this terminal boundary condition come from? ‘The terminal boundary condition that the influence of the infinitely distant future on asset prices today vanishes, is a transversality condition that is part of the necessary and sufficient conditions for an optimum. But in a decentralised market economy there is no mathematical programmer imposing the terminal boundary conditions to make sure everything will be all right’ (Buiter 2009, p. 4). This is a sort of historical nemesis. The school of thought, known as The New Classical and New Keynesian Macroeconomics, which was established to exalt virtues and merits of *laissez faire*, to arrive at its fundamental result has to presuppose the functioning of a centrally planned economy!

The second aporia present in the Black–Scholes–Merton model is that it is based upon two assumptions strictly linked to one another. The former is that the value of an asset over time follows a path which can be described by a Brownian motion; the latter is that the changes of value of the asset are so frequent, hence so numerous, that it is possible to apply to them the law of large numbers, i.e. Bernoulli’s theorem. Both assumptions would obtain only if economic phenomena were stochastically independent—which is practically never the case (I owe this remark to Domenico Costantini).

I move now to the third block of remote causes. They are all to do with the specificity of the cultural matrix which has gradually been strengthened in recent

years on the wave, on the one hand, of the globalization process, and, on the other, from the advent of the third industrial revolution, the info-telecommunications technological revolution. Two specific aspects of such a matrix are relevant to the present aims. The first concerns the acknowledgement that at the basis of the actual capitalist economy, there is a serious pragmatic—not logical, it must be well understood—contradiction. The capitalist economy is certainly a market one, which is an institutional asset in which there are present and operative, the two fundamental principles of modernity: freedom to act and to do business; equality of all in the face of the law. At the same time, however, the main institution of capitalism—the capitalist enterprise, to be precise—has built itself up in the course of the last three centuries on a principle of hierarchy. Thus, a system of production has taken shape where there is a centralized structure to which a certain number of individuals voluntarily surrender, in exchange for a price (the salary), some of their goods and services, which once they have entered the enterprise escape from the control of those who supplied them.

We know well from economic history how that happened and we are also aware of the significant progress on the economic front which has guaranteed such an institutional asset. However, the fact is that in the actual passage of time—from modernity to post-modernity—ever more frequent are the voices raised indicating the difficulties of democratic and capitalist principles being side-by-side. The phenomenon of the so-called privatization of the public is above all what causes the problem: the corporations of the capitalist economy are assuming more and more control of individuals' behaviour—who, it should be noted, spend more than half their time at the workplace—removing it from the state and other agencies, and first of all, from the family. Notions such as freedom of choice, tolerance, equality in the face of the law, participation and other such like, coined and diffused at the time of civil Humanism and strengthened at the time of the Enlightenment, as an antidote to the (almost) absolute power of the sovereign, are, suitably re-calibrated, internalized by the capitalist corporations to transform individuals into acquirers of those goods and services that they themselves produce.

The contrast deriving from this lies in that, if there are cogent reasons to consider the maximum extension possible of the democratic principle to be desirable, then it is necessary to begin to look at what happens *inside* corporations and not just at what happens in the relations among corporations which interact in the market. 'If democracy', wrote Dahl (1985), 'is justified in the government of the state, then it is also justified in governing the corporations' (p. 57). The society in which the democratic principle finds concrete application only in the political sphere will never be completely democratic. The good society in which to live does not constrain its members to embarrassing separations: democratic as voting citizens; non-democratic as workers or consumers. In his recent study (2008), Robert Reich—former minister in Clinton's first presidency—defends the thesis according to which positional competition today represents a serious threat to democracy. It is like saying that it is not true that it is the free market which is prodromal to democracy; on the contrary, it is the democratic principle which frees the market.

The second aspect regards the ever more widespread dissatisfaction about the way of interpreting the principle of freedom. As is known, there are three



constituent elements to freedom: autonomy, immunity and capacity [to act]. Autonomy speaks of the freedom of choice: one is not free if one is not in a position to choose. Immunity, instead, speaks of the absence of coercion on the part of some external agent. In large measure, it is negative liberty (or ‘freedom from’) which Isaiah Berlin spoke about. Finally, capacity (literally: the capacity to act), in the sense implied by Amartya Sen, speaks of the ability to choose, to attain objectives, at least in part or in some measure, which the subject sets himself. One is not free if one is never (or at least in part) able to realise one’s life plan. Well, while the liberal laissez-faire approach is able to assure the first and second dimensions of liberty to the detriment of the third, the statist approach, both in the version of the mixed economy and in that of market socialism, tends to privilege the second and the third dimensions to the detriment of the first. Laissez-faire is able to support change, but it is not as capable of managing the negative consequences of change, due to the serious temporal asymmetry between the distribution of the costs of change and those of the benefits. The former are immediate and tend to fall on the shoulders of the more ill-equipped sectors of the population; the latter accrue later and benefit people with greater talent. As J. Schumpeter was among the first to recognise, the heart of the capitalist system is the creative mechanism of destruction—which destroys ‘the old’ to create ‘the new’ and creates ‘the new’ to destroy ‘the old’—but is also its Achilles heel, because unless adequate ‘safety nets’ are created, it is obvious that those who see themselves damaged by the mechanism of creative destruction will organize themselves to boycott it, creating neo-corporatist lobbies to block the process of innovation. On the other hand, market socialism—in its various versions—if it proposes the state as the subject entrusted to face the asynchronisms that have been spoken about does not damage entirely the logic of the capitalist market, but it restricts its area of operation and incidence. As one can understand, the challenge is therefore that of making all the three dimensions of liberty hang together: this is the reason why the paradigm of the common good appears at least as an interesting perspective to explore.

In the light of what has been argued before, we can understand why the financial crisis cannot be said to be an unexpected or inexplicable event. That is why, without taking anything away from the indispensable interventions in the regulatory area and the new necessary forms of control, we will not succeed in stopping future analogous episodes if the evil is not attacked at its roots—that is, to say intervening in the cultural matrix which up to now has supported the economic system.

#### 4 Instead of a conclusion

What can be said in conclusion to these notes? That if the public protection constituted by the rules and the supervisory agencies—a protection which would have been able to stop the explosion of a financial crisis of proportions never seen before—has not worked, that is due to a variety of reasons, some of a contingent nature (cf. Sect. 2), others of a structural character (cf. Sect. 3). However, it was precisely these latter which help us understand how *this* crisis is different, in a qualitative sense, from those which preceded it.



When, since 1984, the majority of European nations started to follow the USA along the path of financial deregulation, perhaps no one had perceived the mortal danger that would have derived from it: the cutting of the link between democracy and the market. However, a market which deletes democracy from its horizons to make room just for efficiency—taking the form of maximization of profits for shareholders—pushes the economy along a path of oligarchic development, which is as far as it can be from the liberal perspective. The paradox of *laissez-faire*—understood in the strict sense—is that it cuts the branch on which it is sitting: aiming exclusively at efficiency, it forgets that democracy and freedom are values superior to it. This is why already Adam Smith insisted that an authentically liberal social order needed two hands to survive: one invisible—the most well-known one, though often misunderstood, due to a lack in interpretative ability—and one visible—that of the state which has to intervene in a subsidiary key, as we would say today, everytime the work of the invisible hand risks leading to monopolization or oligopolization of the economy. One fact in this regard: the first five American banks (Citigroup, Bank of America, J P Morgan, Wachovia, HSBC) control 97% of the derivative industry and shoulder 90% of the implicit risk (bear in mind that in the 1776 *Wealth of Nations* the metaphor of the invisible hand was cited only once, while Adam Smith devotes quite a few pages to the modes of state intervention).

Today we are witnessing a sort of sentencing of retaliation. From as long ago as the great depression of 1929, one has never seen such a deployment of forces in the economy on the part of the public sector as the one currently in process. As reality teaches, when in the name of ideology one exaggerates in one direction, history's pendulum then swings inexorably in the opposite direction. The dual promise—of financial institutions, which would have been in a position to self-regulate themselves, and of economic results, which would have assured everyone returns above their own average—revealed itself for what it was and is a tragic lie, even if masked and adulcorated with pseudo-scientific arguments. The most theatrical of them assumed the following syllogistic structure. In order to increase ever more the capital gains, it is necessary to raise the levels of risk. On the other hand, *if* the highest risk thus sought is subdivided into myriad securities and financial vehicles; *if* the financial products thus created are spread over a sufficiently broad mass of investors; *if* the temporal horizon of economic decisions extends endlessly, *if* all the three of these conditions are satisfied, then it is as if the risk was annulled and therefore forgotten. However, the statement according to which financial innovations increase overall efficiency insofar as they distribute over the market the total risk is true only if one can prove that risk is an exogenously given magnitude. Which is not the case for the simple reason that financial innovations themselves tend to generate new risk. In situations of this type, the positive effects associated to a wider distribution of risk are unable to compensate for the negative effects due to the endogenous increase of risk. Such a mistake is the consequence of the wrong assimilation of financial risk with natural risk (e.g. the risk of earthquakes, or other natural disasters). While the latter does not depend on the working of capital markets, the former heavily depends on it.

It does not take much to understand how the outcome of such a deception of reality was able to generate the situation at which today we are sad spectators. And

yet, even the most naive economics student knows an economic law, the heritage of ancient wisdom, which says that the value of a complex financial product (think of the CDOs and CDSs) can never exceed the value of its weakest component—just as the strength of a chain is the strength of its weakest link. However, *sacra auri fames* (the sacred hunger of gold) and ideologies have made hay of this and other basic economic principles (Zamagni 2009).

The crisis—which literally means transition and as such is destined to end (perhaps in the course of the next 2 or 3 years)—bequeathes to all the players a message and an important warning. To the commercial and investment banks and various financial institutions, the invitation is that they return to the real aim of doing finance and that they come to understand two things. First, that the ethic of virtue, of Aristotelian origin, is ‘superior’ to the utilitarian ethic if the aim one intends to pursue is the moral and material progress of society (Cf. Mc Donnell 1978, for a clear exposition of the ethics of virtue applied to economics). Second, the time has come to replace the canons of *scientific management*, now obsolete because suitable for a model of industrial production which is no more acceptable, with those of *humanistic management*, whose central element is the human person and no longer the human resource. The post-modern society cannot tolerate that one continues to speak of ‘human resources’, by the same standard as one speaks of financial and natural resources.

To government authorities, this crisis also raises two fundamental points. In the first place, that the sacrosanct criticism of the ‘interventionist state’ is in no way to be extended to the central role of the ‘regulatory state’. Second, that the public authorities gathered at different levels of government must allow, even encourage, the birth and strengthening of a pluralist financial market, that is a market in which diverse agents can work in conditions of objective parity as regards the specific end they attribute to their activity. I am thinking of the local banks—not to be confused with the local branches of multinational banks—cooperative credit unions, ethical banks and various ethical funds. These are entities which not only propose no creative finance at their own counters, but above all fulfil a complementary and balancing role, with respect to speculative financial agents. To that end, it should be remembered that ethical funds have come out of the crisis very well: neither clients fleeing nor falls in returns have been registered. The European market of ethical funds reached 2,700 billion Euros, with an increase of 102% in 2 years. If in recent decades the government authorities had removed the many fetters which still burden those who practice this alternative finances, today’s crisis would not have had the devastating impact that we are now experiencing.

One example, for all. Consider the rules of the Basel II Accord—fruit of the agreement between the public authorities of the OECD countries—concerning the evaluation of the risk for firms asking for credit. If one closely analyses the models which try to measure the firm’s probability of insolvency, one discovers that the parameters used for this—*TSR* (*total shareholder return*); *Roe* (*return on equity*) and others which by their nature are focused on short-term objectives—constitute suitable indicators if applied to large capitalist-type corporations, but are not so valid when one applies them to cooperative enterprises or small and medium-size businesses which work in well-defined territories. It is therefore clear that the

criteria of Basel II are not neutral, given that they discriminate between different business types, with the result that non-commercial banks and local banks will see their activities interfered with burdens which do not fall on the shoulders of the large banking groups. An authentically liberal institutional setup cannot tolerate discrimination of this kind.

What has the current crisis got to communicate to financial theory and economists in general? A dual lesson. First, the more sophisticated are the analytical tools (mathematics and econometrics) used, the higher must be the awareness of the dangers inherent in the practical use of the products of the new technofinance. It is this irresponsible lack of intellectual humility which has led not a few mainstream economists, including prestigious Nobel laureates, to look with superciliousness at authors such as J. M. Keynes and Hyman Minsky and to consider outdated teachers of the calibre of John Hicks or James Tobin (both Nobel laureates), scholars in whose works were already prefigured a large part of the consequences that we are now registering. (I will always remember the metaphorical image of Hicks when, still in the early 1970s, he insisted on the need from time to time to put grains of sand into the financial gears, to slow the engine down—an idea that was later translated into the proposal known as the ‘Tobin tax’.) Humility would have permitted drawing lessons from a notable historic precedent, that of the illustrious American economist Irving Fisher, so talented from a mathematical point of view (Gibbs, the great thermodynamic physicist was one of his mentors) but so catastrophic as speculator on the stock exchange. In Autumn 1929, he publicly stated that share prices had reached maximum stability and Wall Street would never face a collapse. So it was that working on the basis of the theoretical model that he himself had drawn up, Fisher lost not just his reputation as an economist but the whole of his family wealth.

What is it that lies at the basis of a certain intellectual arrogance still quite common in certain academic circles? Inability to understand, through lack of awareness, the distinction between rationality and reasonableness. An economic argument can be very rational, mathematically irreprehensible, but if its premises, i.e. its assumptions, are not reasonable, then it will be of little help; it can even lead to disasters. The famous philosopher of science George von Wright wrote in 1987: ‘Judgements of reasonableness are directed towards value; they are concerned...with what is good or evil for the human person. What is reasonable is without doubt also rational, but what is merely rational is not always reasonable’. Reasonableness, in fact, is rationality which renders reason of and for man. As such, it is an expression of wisdom and not just of intellectual ability. A concrete example of wisdom is to learn—as economic history suggests—that the solution designed to cope with the problems of the last crisis does not prevent the next.

The second great lesson from the crisis to reach economics is that of speeding things up to overcome the so-called conventional wisdom, by which *all* the economic agents would be determined to action by an egocentric motivation. Today we know that such an assumption is actually false: it is certainly true that depending on the contexts and historical periods, there is a more or less high percentage of people whose sole objective is the pursuit of self-interest, but this frame of mind does not describe the whole universe of the economic agents. And yet, the models of

financial theory continue to postulate that the agents are all *homines oeconomici*. As brilliantly shown in Akerlof and Shiller (2009), not more than one-fourth of relevant economic actions can be explained by the instrumental rationality postulate. The rest is guided by animal spirits. The consequence of such a theoretical bias is before our very eyes: from those models come directives for action which are ‘sold’ to the banking and financial sector. In turn, the directors leading the dance in that sector strive, with great technical-communicative ability, to transform those directives into precise products which then get suggested or advised—so to speak—to the vast audience of individuals or collective investors. Some of these are taken with the ‘hunger for money’, but many others are induced into choices that they would not have made in the presence of an effective plurality of offers. The point is that the mathematical-financial models do not suggest just lines of behaviour; they change people’s mindset, as the results of the most recent neuroscience experimental research confirm *ad abundantiam*.

Finally, what is the warning the crisis sends to the subjects of civil society bearers of culture? We think of initiatives such as deleveraging of banks, guaranteeing deposit accounts; sanctioning administrators and taking decisive steps towards a new architecture of the world financial system; taking concrete measures to avoid risking the USA credit card crisis to be added to the on-going crisis (Cf. Diamond and Rajan 2009). All of this is useful and should be urgently done, but it is not enough, because in a striking manner this crisis has broken up that specific component of bridging social capital which is generalized trust. Since a long time we have known that to work a market economy can do without many things, but not trust, because the market is a contractual economy and without mutual trust no contract can be sealed. After all, even the CDSs and hedge funds—created precisely to provide guarantees—solicit contracts, although of a particular type. Never forget that the market is a consumer, not a producer of trust, even if it is true that well-designed commercial institutions encourage the spread and enlargement of relationships of trust. A rough but eloquent indication of the lack of trust comes to us from the recognition that, in the inter-bank market, even the banks which have excessive liquidity have stopped today granting loans to other banks, preferring to buy state bonds that are certainly less profitable.

The task of tying again the ‘ropes’ between all those who work in the market and which this crisis has clumsily snapped falls to civil society. (Trust, from the Latin *fides*, means literally ‘cord’, as Antonio Genovesi in his 1765 *Lezioni di economia civile* clearly demonstrated). However, where should one start in trying to carry on such a task? From re-focusing both the economic discourse and the new institutional setting on the category of the common good. Once a major part of the cultural debate, this category has up to now been systematically confused—sadly even by experts—with that of the total or collective good. Nothing could be more misleading and therefore noxious. That today the notion of the common good, on the wave of the events that I tried to interpret here, may experience a re-awakening of interest is confirmed by a variety of signs and this leads to hope. We should not be surprised: plunged into the looming crisis of our civilization, one is pushed to abandon dystopic attitudes, venturing along new paths of thinking and acting.

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