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Abstract

We briefly describe the recent evolution of the crisis and, by reviewing some of its explanations based on different theories, we proceed towards our own interpretation. The deregulation wave of the last decades has created new profit opportunities in various contexts – from labour flexibility to privatisation, from financialisation to globalisation – so promoting a renewed process of capitalist accumulation after the stagflation of the 1970s. This has taken place at the cost of a wide-ranging increase of inequality and instability, thus implying a *crescendo* of crises until the last one (and maybe beyond).

Keywords: deregulation, capitalist accumulation, inequality, instability, crisis.

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“An economic transaction is a solved political problem…
Economics has gained the title Queen of Social Sciences
by choosing solved political problems as its domain.”
(Lerner, 1972, p. 259)

“The separation of economics from politics and political motivation is a sterile thing.
It is also a cover for the reality of economic power and motivation.
And it is a prime source of misjudgement and error in economic policy.”
(Galbraith, 1987, p. 299)

1. Introduction

Financial innovations and the originate-and-distribute scheme of risk management have been among the key *elements of novelty* introduced in recent decades. Another relevant innovation has been the removal of financial segmentation (for example, the separation between investment and commercial banks). These “innovations” (in many cases, *legislative changes* in the direction of deregulation) have allowed the implementation of increasingly risky financial transactions and a consequent increase of financial profits. At the same time, the complexity of financial products has made more opaque the risk-yield nexus and the spread of risk across operators has increased financial fragility and systemic risk. Then, the financial system has become very unstable and eventually has collapsed. Moreover, in the last years, monetary policy has lowered interest rates, so leading to excessive risk-taking and indebtedness. Starting from the collapse of the US subprime mortgage market, the “financial crisis” has spread out all over the world, and a global recession has followed.

Although financial innovations have been introduced, we think that the recent financial collapse – and the real aspect tied to the “Great Recession” – has many aspects in common with previous crisis episodes. A *known mechanism* at the basis of financial crises is the Minskian pro-cyclicality of the credit supply. Generally, money and finance play a fundamental role in generating unstable economic dynamics in a uncertain environment. In a Keynesian perspective, regulation is needed in order to manage the macroeconomy and avoid a crisis (or, at least, to hasten the exit from it). But the crisis can be also considered as an inevitable event of the "cyclical development" according to alternative theoretical approaches, e.g. the Schumpeter's "creative destruction" or, in a Marxian perspective, the destruction of capital resulting from the "contradictions" of capitalist development that creates the conditions to restore the accumulation process. Then, the recent episode may be interpreted not just as a "financial crisis" but instead as an event due to "real causes" as the lack of aggregate demand, the tendency for the profit rate to fall, excessive exploitation and over-accumulation of capital, and so on. But different mechanisms (or their interaction) lead to alternative explanations.

According to our view, the *fundamental causes* of the recent crisis are tied to the deregulation cycle inaugurated around the 1980s, starting from the US and the UK. The political decisions implemented in the last decades have created new profit opportunities in various contexts, so boosting a renewed process of capitalist accumulation after the crisis of the 1970s. This process has taken place at the cost of a wide-ranging increase of inequality and instability, thus implying a *crescendo* of crisis episodes (both at the national and the international level) until the more recent one, and maybe beyond. In a sense, the "financial crisis" is the most visible manifestation of a deeper problem due to "real causes" (although the strong increase of inequalities, for example, has been already evident for years). Accordingly, we think that the current crisis is linked to the underlying movements of capitalist accumulation (from the *financialisation* of advanced economies to the gradual shift of the world economy's centre towards China and other emerging countries), and to both its functioning as a monetary production economy and its political dimension.

2. The recent evolution of the crisis: A sketch

According to many authors, the collapse of the US subprime mortgages market has been the "epicentre" of the financial crisis. When the FED increased the policy rate, after a period of "low" interest rates, a rise of the subprime mortgages' delinquency rate has followed, while the growth of real estate prices stopped. In the summer 2007, some of the primary financial institutions (in US and in Europe) have declared huge losses due to the bad performance of the housing market and a lack of confidence has diffused worldwide. Until the middle of 2008, however, the instability has regarded in particular monetary and financial markets, without strongly affecting the real side of the economy. Moreover, monetary policy interventions implemented by central banks (quantitative easing, interest rate decrease, bailouts in collaboration with the governments, etc.) have partially mitigated the financial turmoil, counteracting the effects of a "liquidity crisis". As a consequence, some economists maintained that the effects of the crisis would remain confined in the financial sphere.

The Lehman Brothers' default in September 2008 has resulted in a serious deterioration of the crisis, while the confidence among operators fell sharply. From this episode on, the "real economy" has begun to go down. In a context of high uncertainty, the lack of confidence has resulted in a vicious circle of reduced propensity to lend money and deleveraging at different levels: from interbank markets to lending to firms and households. Hence, a "credit crunch" has reduced investments, production and, subsequently, employment in various sectors and countries. All in all, after September 2008, the financial meltdown transformed into a "global economic recession". Beyond the details that distinguish the varied positions of economists, a consensus has emerged on the understanding of recent events as a vast financial crisis with heavy real effects. But this is not our own interpretation (and that of a consistent number of economists proposing alternative analyses).

Central banks and governments have contrasted the worsening of the crisis by putting significant resources into the economy. As a consequence, the deficits and public debts of many countries have raised remarkably (as there has been a significant expansion of central banks' balance sheet), consisting in a large socialisation of private losses. Now, western economies (from Greece to the US) are facing the problem of excessive public debts and a tendency to *austerity* as its solution seems to prevail in the political arena (as a pursuance of the neoliberal agenda). In fact, the problem of excessive foreign deficits seems to have an even greater importance, for example in the Euro area, given that this depends on trade imbalances due to marked differences in competitiveness. The current fiscal policy tightening (and that announced for the next future) makes a deepening of the crisis more likely, also because monetary policy measures are boosting financial activities and the stock market but are not solving the main problem of a tendency towards a prolonged recessionary phase.

However, while "advanced economies" have faced a vast financial and economic crisis (followed by a worrying rise of unemployment and public deficits and debts), after a minor deceleration, "emerging economies" have continued to grow at high rates, in an international context characterised by *global imbalances*. Evidently, the current tendency of many advanced economies towards a recessionary phase can have relevant negative effects on the growth performance of exporters like China and other emerging countries. A deceleration of these countries may have, in turn, serious implications for advanced economies, so boosting a vicious circle which implies a long crisis. However, as we shall see below, the significant gap between the growth rates of western and eastern economies has deep roots and suggests that the crisis is related to the changing geography of the global process of capital accumulation. In addition to "globalisation" (considered not as a new phenomenon, but rather with respect to the specific characteristics of the recent historical phase), we will stress the role of "financialisation" in creating the conditions for the crisis during the neoliberal era.[1]

3. Elements of novelty

Many problems derived from the diffusion of financial innovations, from subprime mortgages to the various structured products and financial derivatives. On the basis of the originate-to-distribute scheme (instead of the traditional one, that is originate-to-hold), financial risk has been disseminated among different operators and countries through a complex network of interconnections. The removal of the segmentation of credit and financial markets (that was introduced in many countries after the vast destruction of the Great Depression) has amplified this tendency. Moreover, a "shadow banking system" has been created to collect risks off-balance (to avoid the constraints of the remaining regulation).

The origination and distribution of "private risk" have been conducted by banks and other financial institutions according to their primary goal, that is profit maximisation. In doing so, they have increased the complexity of financial products (which has made more opaque the risk-yield relationship) and of financial interconnections, with a subsequent increase of *systemic risk*. In other words, excessive risk may be interpreted as a negative

[1] According to Epstein (2005, p.3), financialisation can be defined as "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of domestic and international economies".

externality – due to a social return of financial activities smaller than the private one – which has caused a failure of financial markets. Hence, one solution for this problem could be a tax on financial activities in order to internalise the negative external effect.

Many authors have highlighted the role of “bad regulation” of financial markets in provoking the crisis. According to this interpretation, regulation has not been able to assure orderly market conditions, allowing (or even supporting) excessive speculations. Instead, as Orléan (2009) rightly pointed out, the financial meltdown was not due to the fact that the rules have been circumvented, *but to the fact that they were followed*. Then, a solution to the crisis could derive based on a revision of financial market rules, thus questioning the priority given to financial liquidity. For instance, Orléan (2009) suggests a (new) segmentation of financial markets, that is an intervention that should reduce the disproportion between the initial shock of limited size and the enormity of the losses generated.[2] Now regulators are trying to modify the institutional context by revising old rules or by introducing new ones. The followed approach has been to fight market complexity with regulation complexity: for example, as noted by Haldane (2012), Basel I agreement was only 30 pages long, while Basel II was 347 pages long, and Basel III is 616 pages long. But, in a very complex environment as the financial system, the introduction of complex rules can be ineffective: “Because complexity generates uncertainty, not risk, it requires a regulatory response grounded in simplicity, not complexity” (Haldane, 2012, p. 24).

Monetary policy has been indicated as a contributory cause to the crisis (“Greenspan put”): “low” interest rates have supported excessive risk-taking, speculation through growing indebtedness, leading the system towards financial unsustainability. When the FED raised the policy rate the financial system fell down, starting from the US subprime mortgage market. In general, the transformation of financial institutions, the introduction of new financial products and the process of deregulation have made the US financial system very fragile, while many players have become convinced “that a steady flow of liquidity will be, at all times, made available by the authorities and, in particular, by the US Federal Reserve, to face emergencies

[2] However, we think that in this context a “true” regulation of financial markets, through segmentation and other restrictive measures, would negatively affect financial profits and then capital accumulation, by now a highly financialised process, especially in advanced economies. This could even worsen the overall performance of western countries, unless a radical change in the pattern of economic development.

the market has come to experience almost daily. The LLR can thus be said to have become a lender of first resort" (De Cecco, 1999, p.6). Moreover, monetary policy has become "endogenous" to income distribution (Stiglitz and Fitoussi, 2009) because of the rising inequality which has required more debts to sustain consumption, being a large part of the population characterised by low incomes. In other words, the financial system has become unable to work with high interest rates, because of too-high levels of indebtedness (with a high incidence of short-term positions), excessive leverage, and growing inequality. Now the "monetary policy easing" is supporting financial systems, although this effort is failing to revamp the real economy. Indeed, unemployment rates remain high in advanced countries – despite the high flexibility of labour markets – and a prolonged recession phase seems to be likely.

All in all, the elements of novelty have been introduced in the wake of the deregulation wave promoted by neoliberal policies (that we will further analyse discussing the fundamental causes of the crisis). These innovations triggered the mechanisms underlying the working of the economic and financial system. However, different mechanisms are tied to alternative theories and then to different understandings of the crisis.

4. Known mechanisms

A mechanism which usually generates a financial crisis is the pro-cyclicality of the credit supply (Minsky, 1982): the leverage increases in expansionary phases (operators become less risk-averse in "good times") while it decreases in recessions (agents become more risk-averse in "bad times"). Consequently, a lower risk perception in expansions leads to more indebtedness so increasing the "financial fragility" of the system. So, the economy endogenously evolves towards a critical state of financial instability and a crisis follows.

Some authors proposed a mathematical representation of such a mechanism. For instance, the "financial accelerator" (Bernanke et al, 1998) is a shock-amplifying process based on the anti-cyclicality of the risk (external-finance) premium: in "good times" firms' net worth increase due to the accumulation of profits and, given a higher financial soundness and creditworthiness, banks reduce the risk premium charged to borrowers; this makes credit more attractive (due to profits generated by leverage) and results in the amplification of the expansionary phase; when the cycle goes down, because of the arrival of a negative shock, financial factors make the situation worse, accelerating the economic downturn. In this perspective financial factors have an important impact on business cycles and a "financial crisis" may have significant effects on "real variables" (production, employment, etc.). In general, the contributions of New Keynesians may explain the real effect of financial problems when financial markets are characterised by asymmetric information (Greenwald and Stiglitz, 1993).

In our opinion, one of the major flaws of mainstream economic theory (in particular, we refer to macroeconomics based on neoclassical microfoundations) derives from the idea of reducing the complexity of aggregate phenomena to the behaviour of a single, representative agent (capable to optimise its objective function, under some constraints, according to an infinite time horizon). Instead, according to De Cecco (1990), the peculiarity of macroeconomics as the study of the system *as a whole* clearly emerges from Keynes' theory. In this regard, Keynes argued "that important mistakes have been made through extending to the system as a whole conclusions which have been correctly arrived at in respect of a part of it taken in isolation" (Keynes, 1936, xxxii). Some recent contributions in the field of Agent-Based Computational Economics move in this direction, studying macroeconomic phenomena as emergent properties of a *complex system*. For instance, going beyond the Representative Agent hypothesis, Delli Gatti et al. (2010) proposed an analysis of financially-driven fluctuations in a "heterogeneous interacting agents" framework: in this context, even a small shock can lead to large fluctuations; for instance, the contagion of financial distress may cause bankruptcy avalanches. In fact, failure of fulfilling debt commitments on the part of borrowers makes worse lenders' financial conditions; then, some agents may go bankrupt and a "snowball effect" can develop with significant consequences on the overall economy. This mechanism can be described as a "network-based financial accelerator" according to which the deepness of a crisis depends on financial fragility as well as on the complexity of financial interconnections. Consequently, we should also consider systemic risk due to the evolution of complex financial networks among the factors that affect monetary policy decisions (see, for instance, Trichet, 2009).

In the historical perspective proposed by Kindleberger and Balibar (2005), the mechanism proposed by Minsky is useful to describe the typical evolution of financial crises. Indeed, their thesis is that the cycle of manias and panic results from the pro-cyclical changes of the supply of credit. Moreover, agents' financial memory is short and, as time elapses, the reminiscence of past crises vanishes; so the system is again crisis-prone and, when a new episode is happening, it is widely believed that "this time is different" (Reinhart and Rogoff, 2009). However, in the post-Keynesian analysis of Minsky, the financial sector is a central channel of instability. A way to reduce such an instability is a downsizing of finance with respect to the whole economic system. In this perspective, such an intervention should reverse the tendency towards "the production of financial profits by means of financial profits" as an activity increasingly disconnected from the "real economy". But, according to our vision, this is not sufficient to overcome the crisis (because this does not resolve all the problems arising from "fundamental causes", as we shall see below). However, the Minsky's theory of financial instability has certainly an important role in explaining the crisis if considered as a mechanism coupled with the other aspects of capitalist accumulation (Palley, 2010).

In general, according to a Keynesian perspective, money and finance play a fundamental role in generating instability and crises. With "high uncertainty", economic decisions (in particular, entrepreneurial investment choices) are taken on the basis of unpredictable (incalculable) risk. As a consequence, imitation may emerge as a *rational* strategy, especially in financial markets, leading to a *conventional* behaviour (Keynes, 1937). In a period of turmoil, agents' confidence falls and the "preference for liquidity" goes up. Given that in a monetary production economy capitalists aim at accumulating wealth, when they believe that the safest way to store up and increase wealth is no longer to produce commodities, but instead to hold liquid money, an unemployment crisis occurs (Graziani, 2003). Then, restoring the confidence in the economic and financial system is fundamental but this requires a comprehension of the causes at the root of the crisis and a political change in the course of economic growth through macroeconomic regulation. This is based on the Keynes' idea of "possible improvements in the technique of modern capitalism by the agency of collective action" (Keynes 1926, pp. 292-3). This should lead to a cooperative solution of global imbalances aimed at stabilising the international monetary system through the arrangement of a new monetary order (for instance, a global currency representing a mixture of the currencies used in the major economic areas).[3] But this is difficult to implement given the privilege (although declining) that the US still get from the use of the dollar as an international reserve currency and, in general, the benefits deriving from financial dominance. Even the support of the aggregate demand, for instance through a redistribution from the rich to the poor or expansionary fiscal policies, seems difficult to implement without a significant change of the political framework, so to reverse the neoliberal course and austerity policies.

Finally, in a Marxian perspective, the expansion of the financial sector, the increasing role of credit to sustain consumption, labour market flexibility, outsourcing and offshoring, privatisations, etc. are all factors which have allowed a recovery of the capitalist accumulation process, by counteracting the post-WWII decline of the profit rate culminated in the stagflation of the 1970s. Following Foley (2012), that crisis was due to "the tendency for the rate of profit to fall",[4] while the recent one (as well as the Great Depression) is rather the consequence of a rising rate of exploitation (counteracting the long-run tendency of the profit rate to fall) and then of the increasing difficulty faced by societies in managing a large and growing surplus value, with great demands on the financial system to recycle it. According to Basu and Vasudevan (2011) which proposed a decomposition analysis of the US profit rate, the recent crisis has not been preceded by a prolonged period of declining profitability, but rather by a period of rising profitability due to a favourable trend in both profit share and technology.[5] As a matter of fact, after a period during which the profit rate recovers, the countervailing tendencies eventually lead to instability. Indeed, at some point the contradiction between the individual goal of maximising profits ("micro") and the collective one ("macro"), consisting in the valorisation of capital, gives rise to an inevitable crisis. In the last years this was due to extreme inequality, financial instability and global imbalances. In this perspective, the financial collapse is the most apparent manifestation of a more general

[3] See Alessandrini and Fratianni (2009) for a Keynesian proposal to stabilise the international monetary system.
[4] On the decline of US profits and the successive recovery in the 1980s, both at the aggregate and the sector levels, see for instance Uctum and Viana (1999) and Freeman (2009).
[5] The critical factor that emerges from their analysis is that the run-up of the crisis has been characterised by a sharp decline of capital productivity, due to increasing capital intensity – from 2000 onward – while labour productivity continued to rise.

crisis, due to fundamental causes, whose realisation has been postponed and amplified by financial factors.

5. Fundamental causes

In recent decades a progressive decline of the labour share has occurred in advanced economies (about 10% in Europe and Japan and 3-4% in Anglo-Saxon countries since 1980), especially in unskilled sectors (IMF, 2007, chap. 5). Among the possible causes we list the following: skill-biased technological change; labour market reforms (aimed at increasing "flexibility", especially in some European countries); national and global relocation of production through outsourcing and offshoring; migrations, import of commodities from low-cost countries (tied to a strong rise of the global labour supply); etc.[6] In fact, the decrease of the labour share (combined with a decrease of public expenses and a downsizing of the welfare state) may cause a lack of effective demand in a context of growing inequality. Actually, consumer credit and other forms of indebtedness have prevented this to happen for a while, but at the cost of an increasing financial instability and a following large crisis. By contrast, in a period of labour flexibility and decentralisation – characterised by a declining bargaining power of unions, the profit share increased. According to Foley (2012), the expansion of financial markets has allowed a vast recycle of the surplus value that followed the "excessive exploitation" of the neoliberal decades.

Contrary to the Keynesian principle that public intervention is needed to regulate a highly uncertain economic environment with inadequate self-adjusting properties, the political choices at the basis of the last decades *deregulation* cycle have promoted a general tendency towards *liberalisation* and *privatisation* with the aim of reducing the "intrusiveness" of the public sector in private affairs, resulting in new profit opportunities for private capitals in various contexts (from infrastructures to public services, education, and so on).[7] Starting from

[6] "Changes in labor market policies have had a positive effect on the labor share in Anglo-Saxon countries, but a much more modest effect on average in Europe, particularly in large European economies where labor policies are estimated to have actually contributed to a decline in the labor share" (IMF, 2007, p. 177). In particular, "[…] labor globalization has negatively affected the share of income accruing to labor in advanced economies (labor share). […] Rapid technological change – especially in information and communication sectors – has had a bigger impact, particularly on the labor share in unskilled sectors" (IMF, 2007, p. 180).

[7] Two famous statements at the basis of the neoliberal ideology underlying the post-1970s political process of deregulation are the following: "In this present crisis, government is not the solution to our problems;

the US and UK, the political process of deregulation has gradually eliminated the rules created after the Great Depression (in the other European countries the process has been slower, following European Directives), boosting financial profits but also provoking some crises in the “core-country” of the world economy (Wall Street in 1987, savings & loans in the 1980s and 1990s, the New Economy bubble, until the subprime mortgages’ one). At the same time, the deregulation of the international financial system has opened new investment channels (“globalisation of finance”) at the cost of rising global instability (especially due to short-run speculative operations) and various crises followed (Mexico in 1994-5, south-east Asia in 1997, Russia and LTCM default in 1998, etc.). Moreover, the flow of capitals as foreign direct investments (FDIs) has supported a global industrial reorganisation (“globalisation of production”) based on the mounting importance of Eastern economies in “traditional” sectors (due to low-cost production, although sectoral composition is already evolving towards more advanced productions while wages are rising)[8] in a period of decline of manufacturing and rise of services and finance in western economies.[9]

Let’s now focus on the expansion of finance during neoliberal decades. Focussing on the US macroeconomic trends since the 1960s, van Treeck (2009) shows some of the main changes occurred after the 1970s. We summarise these findings – relative to the two sub-periods, *until* the early 1980s and *since* the early 1980s – as follows:

- the income inequality was relatively low and roughly stable, then it has drastically increased (to levels comparable to the 1920s);

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government is the problem” (Ronald Reagan, first inaugural address as the 40th President of the United States of America, January 20th, 1981). “They’re casting their problem on society. And, you know, there is no such thing as society. There are individual men and women, and there are families” (Prime minister Margaret Thatcher, talking to Women’s Own magazine, October 31th 1987).

8 “Real wages (corrected for purchasing power) have been converging rapidly and are relatively high in Asian countries that started developing earlier (Hong Kong SAR, Korea, Singapore, and Taiwan Province of China). Wages in other Asian countries, including China, have been converging at a slower pace, though this has accelerated in recent years” (IMF, 2007, p. 169).

9 As noted by Greenwald and Kahn (2009), the manufacturing share of GDP in the US (more than 30% in 1950) has changes from 27% in 1970 to 18% in 1990 and 16% in 2000, following an evident declining trend. In the meanwhile the share of Services (9% in 1950, 13% in 1970, 19% in 1990, and 22% in 2000) as well as of Finance, Insurance and Real Estate (9% in 1950, 11% in 1970, 17% in 1990, and 20% in 2000) increased, mainly due to productivity growth. In this perspective, automation and not globalisation is the major responsible for job losses in both manufacturing and lower-level services. According to the authors, a similar transition – from agriculture to manufactures – was at the basis of the Great Depression, due to a productivity increase in the primary sector and the following sectoral dislocation then solved through public expenses and the WWII. See also Delli Gatti et al. (2012).

- the personal net worth-to-income ratio was relatively stable or slightly decreasing, then it has strongly increased;
- the personal saving rate was relatively high and slightly increasing, then it has drastically declined (reaching negative values for the first time since the early 1930s);
- the personal debt-to-income ratio was relatively low and roughly stable, then it has drastically increased;
- non-financial corporations retained a large and roughly stable fraction of their net profits, then they have heavily increased the dividend-payout ratio;
- the growth rate of net capital stock displayed cyclical movements around a relatively high trend, then it has shown an overall declining trend (with the relevant exception of the "new economy" boom of the 1990s);
- the contribution of the net new equity issues to the financing of fixed capital investment by non-financial corporations was small but positive, then it turned to be negative and very large in absolute value;
- firms' debt-to-capital ratio was relatively low, then it has increased.

Then, it results that the post-1970s deregulation wave has increased inequality and indebtedness (both for households and firms), promoting a broader role for finance in the working of the economy. "The tight regulations forced the financial sector to concentrate on promoting capital accumulation in the nonfinancial sector. Starting in the 1970s activity in financial markets and the profits of financial institutions began to rise relative to non-financial activity and profits" (Kotz, 2008, p.4). For instance, in the USA the financial corporations' pre-tax profit rose from an average of 13.9% of all corporate profits in the 1960s to 25.3% in the 1990s and 36.8% in the period 2000-2006.[10] In general, from the 1970s to the 1990s, there was an increase of the share of national income received by financial institutions and financial wealth's holders in the majority of OECD countries (Epstein and Jayadev, 2005).

The entire working of financial markets changed in recent decades: "the financial sector gradually shifted from loan-based financing of the nonfinancial sector to more market-based and more speculative activities" (Kotz, 2008, p.16). Specifically, "banks have turned toward mediating transactions in open markets, thus earning fees, commissions and trading profits.

[10] Data from US Bureau of Economic Analysis presented in Kotz (2008).

They have also turned toward individuals in terms of lending and handling financial assets" (Lapavitsas, 2010, pp. 24-25). Furthermore, "individual workers and households have been led into the financial system with regard to both borrowing and holding financial assets. The retreat of public provision in housing, health, education, pensions, and so on, has facilitated the financialisation of individual income, as have stagnant real wages. The result has been the extraction of financial profits through direct transfers of personal revenue, a process called financial expropriation" (Lapavitsas, 2010, p. 25). Based on systematic misinformation due to the increasing complexity of financial products and the opacity of the yield-risk relationship in a context of strong uncertainty, the growth of profits has been boosted by a process of financial expropriation directly out of personal income.

In an increasingly deregulated environment, the rise of inequality and the precarisation of many individuals' life have been exploited by the financial sector through providing credit consumption, sub-prime mortgages, etc. Furthermore, a rising fraction of households' saving has been invested in pension funds and other financial activities associated to rising levels of risk. In this way, individuals have been increasingly involved in the working of financial markets, adding to the risk of a precarious life that of financial operations. This process has co-evolved with a reduction of the public intervention in the economy, resulting among other things in a reduction of the sustain to aggregate demand, while consumptions have been supported by a large expansion of credit and the wealth-effect due to financial incomes (Fumagalli, 2007).

During the 1980s and 1990s the financialisation of nonfinancial corporations has emerged as a relevant phenomenon and it is now a well documented phenomenon for the US economy. "This is apparent in the sharp rise of their financial income and in the increased holding of financial assets from the 1980s onward" (Duménil and Lévy, 2004, p. 100). Moreover, prior to 1982, financial relations related to the nonfinancial corporate sector always increased its profit rate as a consequence of low interest rates. During the neoliberal era, instead, the rise of real interest rates modified this situation, and calculating two values of the profit rate for nonfinancial corporations, with and without financial relations, we obtain similar results (because the payment of real interest rates nullified the financial gains). "In particular, the low interest rates during the Keynesian treatment of the crisis in the 1970s (besides poor financial markets) were reflected in the comparatively low profit rates of the financial sector. Conversely, the new neoliberal course of events provoked a sharp comparative rise in the profit rate in the financial sector during the 1980s and 1990s" (Duménil and Lévy, 2004, p. 100).

As highlighted by Orhangazi (2007), before financialisation clearly emerged in the 1980s and 1990s, Tobin (1965) maintained that real investment and financial investment could be substitutes because when financial assets offer higher returns than real activities more resources will be directed to finance, resulting in a crowd-out of real investments. Using data from a sample of nonfinancial corporations from 1973 to 2003, Orhangazi (2007) finds a negative relationships between real and financial investment. From this firm-level investigation it emerges that two aspects of financialisation may have negative consequences on real investment, especially in the case of large firms: first, high financial profit opportunities result in higher financial investment, leading to a decline of real capital accumulation; second, increased financial payments leave firms with fewer funds to invest and shorten the planning horizon of firms' management.

According to Lazonick and O'Sullivan (2000), the financialisation of nonfinancial corporations has been characterised by a shift from a "retain and reinvest" strategy to a "downsize and distribute" strategy; that is, management strategies have changed focussing more on the maximisation of shareholder value and less on long-term growth. In fact, the profit share increase of recent decades has been accompanied by the stagnation of real investment and a sharply increase of interest payments, dividend payments and stock buybacks (also mergers and acquisitions may be considered).

Stockhammer (2004) confirms that over the past decades the financial investment of nonfinancial corporations has been rising and the accumulation of capital goods has been declining. According to this author, the 'shareholder revolution' and the development of a market for corporate control have shifted power to shareholders changing management priorities, with a reduction of growth rates. From the analysis of the time series of aggregate investment for the USA, the UK, France and Germany, it results that financialisation has been responsible for a slowdown of accumulation (in particular, for the first three countries). Similar results have been reached by Crotty (2005), according to which nonfinancial corporations have increased financial investments as response to high interest rates and to low rates of profit associated to real investments, and Dumenil and Levy (2005), according to which the growth rate of real capital accumulation depends on that of retained profits (that is, profit after interest and dividend payments), which is diminished in recent decades.

Even in the case of offshoring a significant relationship between real and financial investment emerges. According to Milberg and Winkler (2010), which have conducted an empirical study on US manufacturing and services industries over the period 1998-2006, offshoring is associated with a higher share of corporate profit in total value added. Offshoring has been a winning strategy for US corporations facing price competition in product markets: to maintain profits, firms have extended their global production chains, bringing costs under control. But "the potential dynamic gains of offshoring associated with reinvestment of the higher profits it brings have not fully realised. To the extent that corporations have become financialised – mainly through an increase in dividend payments and share repurchases, but also with increased merger and acquisition activity and large executive compensation packages involving stock options – this has diminished the capture of dynamic gains of offshoring" (Milberg and Winkler, 2010, p.277). Hence, offshoring significantly increased profit shares in various US sectors but there has been a shift in the use of these profits: firms reduced their spending on plant and equipment and expanded their spending aimed at immediately increasing shareholder value.[11]

All in all, a picture emerges according to which financialisation has been a fundamental factor behind the recovery of profits from the 1980s onward in the leading capitalist economy, as well as a phenomenon involved in a slowdown of real capital accumulation. Indeed, "the evidence suggests that a growing share of the financial system actually slows overall economic growth" (Cecchetti, 2012). Unsurprisingly, the average growth rate of most advanced countries during neoliberal decades has been lower than in the post-WWII "regulated capitalism". In the meanwhile, real capital accumulation based on the expansion of production and trade has been faster in Asian countries, starting from Japan, and following with the "Asian tigers", and then China and India (see Table 1).

[11] Moreover, as pointed out by Duménil and Lévy (2004), the profit rate on US direct investment abroad (that is treated as a financial asset in flow of funds accounts) has been significantly higher than the global profit rate of the nonfinancial corporations (the average values over the period 1958-2000 are 14.5% and 8% respectively).

	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2006
USA	1.74	3.40	2.50	2.41	1.95	1.30
Europe:						
France	3.46	4.71	2.83	1.72	1.19	0.97
Germany	**8.49**	3.55	2.91	1.73	1.54	0.79
Italy	**6.14**	6.17	3.09	2.14	1.13	0.78
UK	1.87	2.20	2.23	2.69	1.88	1.87
Japan	**8.50**	**12.26**	3.55	3.36	0.75	1.19
"*NIC*"						
Hong Kong	3.64	7.06	7.20	6.23	2.18	3.77
South Corea	4.55	6.63	**9.81**	**9.51**	**5.34**	3.96
Singapore	-0.15	**7.16**	**8.84**	4.88	4.69	2.31
Taiwan	4.51	**7.25**	**9.70**	**8.13**	**6.18**	2.53
"*BRIC*"						
Brasile	3.29	2.25	6.00	0.05	0.93	0.78
Russia	2.91	3.24	1.61	1.06	-4.05	**7.59**
India	1.58	1.21	0.31	3.53	4.10	**5.33**
China	5.32	0.77	3.35	**7.29**	**6.90**	**10.97**
World economy	2.67	3.08	2.06	1.37	1.33	2.81

Table 1: The post-WWII growth performance of major economic area. Per capita growth rates are in PPP according to the value of "Geary-Khamis" 1990 international dollar. As regards to Russia we refer to the territories of the ex USSR. For each column, the three highest rates are in bold. Our elaborations on Maddison (2006) data.

However, in recent decades the expansion of credit has prolonged the development of some countries, although it has especially boosted financial profits. But the ascent of finance in a period of difficulty for the real economy may signal an uncertain future for economic development. According to De Cecco (2007), one of the finding of the Keynesian analysis is that an "excess of finance" may lead to the collapse of a capitalist economy and that financialisation has emerged as a characteristic of economic systems more likely in periods of decline than of ascent in the economic history of various countries.

Following the French economic historian Fernand Braudel, the expansion of finance may be seen as a "sign of autumn" of a country which has reached a maturity stage in its process of economic development. On these bases, Arrighi (1994) maintains that a *financial expansion* occurs when the *material expansion* of productive forces reaches its limits. In this sense, “financial capitalism” is not a specific phase of capitalist development nor its final stage, but instead a recurrent phenomenon involved in the critical phases of reorganisation and enlargement of world capitalism during which the centre of the accumulation process tends to move towards another location.

Arrighi (1994) identified four, overlapping, *systemic cycles of accumulation* (as sequences of two phases: first a material expansion, then a financial expansion) each during a “long century”: the Genoese-Iberian cycle (XV – early XVII), based on the alliance between the territorial power of Spain and the capital power of Genoese capitalists; the Dutch cycle (late XVI – late XVIII), based on the expansion of United Provinces and the commercial and financial power of Amsterdam; the British cycle (mid XVIII – early XX), based on the material expansion following the Industrial Revolution and the growing centrality of London as an international financial centre; finally, a US cycle, from the late XIX century through the latest financial expansion.[12] Then, the autumn of the leading capitalist organisation is also the springtime for another location: the crisis of the 1970s – the “spy-crisis” of US hegemony – signals the transition from the material to the financial expansion in the leading capitalist economy. The recent turmoil period (and maybe what will follow) could be then considered as a “terminal crisis” of the US hegemony, while a new centre of capital accumulation is developing in East Asia, particularly in China (Arrighi, 2007).[13]

In recent decades, after major market-oriented reforms, China has followed a development process based on a *mix* of international openness and protection (controlling the external value of its currency and capital movements – generally accepting FDIs and not short-term speculative investments). In a sense, China has benefited from the advantages of globalisation “without globalising itself too much”. However, this is not an entirely new strategy in an historical perspective (Bairoch, 1993; Landes, 1998) and it has important theoretical and political bases: just to make a few examples, the John Stuart Mill’s “infant

[12] According to Li et al. (2007), the sequence of the systemic cycles of accumulation are related to the long-term movement of the profit rate in the capitalist economy.

[13] This would not be a real news from an historical point of view, given that the intercontinental trade during the XVI and XVII centuries was especially characterised by a huge flow of silver from the West to the East – from Americas to Europe and, then, to China and other countries of the South-East Asia – and a corresponding flow of commodities in the opposite direction – Asian manufactures towards Europe and European manufactures towards the Americas. Therefore, the silver from Americas was used to settle the trade deficit that Europe had with the East (Cipolla, 1976).

industry", the Friedrich List's "national system of political economy", the Alexander Hamilton's "report on manufactures", etc. Endogenous growth theory has partially rediscovered these aspects stressing the relevance of particular industries and/or factors (for instance, R&D, human capital) and the need to specialise in the "right" sectors to improve long-run performances. Moreover, the control on short-term speculative investments has protected China (and some other Asian countries) from the consequences of the 1997 crisis. For instance, Stiglitz (2002) maintained that the gradualism in the transition to a market-oriented environment has been a winning strategy for some countries while one of the major causes of the Asian crisis has been a too fast deregulation in other countries.

All in all, the so-called *global imbalances* emerged as a consequence of the penetration of China and other emerging economies in global markets: capitalist accumulation has expanded towards the East following the profitability deriving from low costs of production,[14] benefiting from capital flows leaking out from the West (FDI, MNEs, etc.), according to a process initiated by the same political decisions which have gradually deregulated and financialised advanced economies and the international system.

On this basis, an interpretation of the recent crisis as a phenomenon due to the underlying movements of capitalist accumulation shaped by political choices follows. In next years, a further enlargement of the capitalism's "container" (in Braudel's terms) may follow, resulting in the incorporation of other less-developed economies in the global process of capitalist accumulation, including Latin America and also some African countries. Indeed, the evolution of emerging economies towards more advanced productive specialisations (with an increasing role of knowledge and scientific research and rising production costs, wages included) would need a new *periphery* from which to import raw materials, intermediate products and, in general, commodities produced with lower labour costs. This process would result in a reconfiguration of the international division of labour hierarchically structured around the new *centre* of world capitalism. But a long multi-polar phase would precede this outcome and the transition to a new global order would be characterised by great instability. It is worth to note that the current tendency of many advanced economies towards a

[14] For a comprehensive discussion on the geographical aspects of capital accumulation and the crisis, see Harvey (2010).

recessionary phase can have relevant negative effects on the growth performance of exporters like China and other emerging countries. A deceleration of these countries may have, in turn, serious implications for advanced economies, so boosting a vicious circle which implies a long crisis.

Clearly, the instability of this ongoing process also depends on the political conditions of emerging countries. Particularly, as China expands and becomes more and more central to the global economy, the internal political instability can have significant consequences for the rest of the world. However, the Chinese Communist Party seems to be able to manage this complex task, on the basis of the *gradualism* with which the transition of the last decades has been conducted. Furthermore, there is the problem of the ecological limits to growth, that the rise of China is likely to exacerbate due to a very large population with growing consumption and a great demand of energy.[15] The rise of India (that has a 'demographic advantage' over China, but worse infrastructures and lower rates of education) poses similar problems. An opposite view is, for example, that of the OECD (2011) according to which the economy and the environment can work together and then we can move towards a "green economy". Certainly, once the current critical phase will be overcome, a new period of economic development based on "green technologies" could evolve. Besides the problem of 'environmental sustainability', however, there is the usual problem of 'social sustainability': this would need a large-scale redistribution of wealth in Western countries – reversing the neoliberal course – while a rise of social conflicts in emerging economies during the ongoing expansionary phase should lead to higher wages and welfare-state improvements; less-developed countries would benefit from an increasing involvement in the global process of capitalist accumulation. By this we mean that less-developed countries, once "put to work" by global capitalism, may see their economies grow. But this is not a natural outcome: it requires policies to create the bases for future development, such as infrastructures and education. In the absence of these conditions, these countries would remain trapped in a situation of under-development, based on the export of raw materials such as precious metals, gas, oil, etc., that usually enriches a few powerful individuals while the rest of the population remains poor.

[15] According to Li (2008), this would lead to the demise of the world capitalist system, due to a global environmental crisis.

Accordingly, the ongoing revolutions in North Africa and Middle East may represent an important step to overcome the "poverty trap".

Finally, the financial dominance of Western countries in the international system tends to delay their relative economic decline. However, also this financial dominance may not last long if the performances of the real economy continue to be weak, while the East grows at double-digit rates.[16] For the reasons explained above, and mainly because the capital accumulation has become a highly financialised process, a strong revision of financial rules (that has already strongly contrasted by financial powers) could even worsen the outlook for advanced countries through reducing financial profits, unless a radical change in the political course.

6. Conclusions

According to our understanding, the deregulation cycle started around the 1980s has led to a renewed process of capital accumulation based on labour flexibility, production decentralisation, privatisation, globalisation, and financialisation. In other words, the post-WWII decline of the profit rate eventually led to the stagflation of the 1970s. The countervailing tendencies triggered by neoliberal policies resulted in a partial recovery of profitability. But, due to the typical working of capitalist development, the same elements at the basis of capital accumulation – causing in this case growing inequality, financial instability, and global imbalances – have given rise to a large crisis, as the most recent episode of a long *crescendo* that has characterised the neoliberal era (from the Wall Street 1987 crash to the New Economy bubble and the 1997 Asian crisis, just to make a few examples).

In our view, the expansion of credit and finance has postponed the crisis, amplifying its effects and producing a severe financial collapse which has been its more apparent manifestation. In the meanwhile, the geography of the global process of capital accumulation continues to change based on the ascent of emerging economies (where, thanks to a global

[16] A relevant precedent is that of the Britain's progressive decline as a manufacturing producer and exporter, between the late nineteenth century and the beginning of the twentieth century, and "its increasing dependence on the world market for import of foodstuffs and raw materials and its Empire as an outlet for its exports" (De Cecco, 1975, p. ix). Accordingly, what continued to support for a while the Britain's central role in the international financial system concerned more political power than economic advantages.

deregulation, capitals from advanced countries have found high returns, in addition to financial speculation). In other words, while Western countries suffer the damages resulting from the excesses of the last decades' financial *belle époque*, the centre of the global accumulation process tends to move eastward.

In this perspective, the crisis consists in a destruction of capital required to restore the conditions for capitalist development. In a sense, crisis episodes are 'earthquakes' whose magnitude depends on the underlying movement of the 'tectonic plates' of the world capitalist economy (that is, however, definitely not a natural system – as the common use of the term *economics* rather than *political economy* might suggest – but rather a social system whose political bases can be moderately or radically changed). The question is whether the recent destruction has been sufficient in this sense or the deterioration of the current instability (also due to the pursuance of the neoliberal course through austerity measures) tells us that the occurrence of the next crisis is not so far. Indeed, a long period of crisis may be expected when a fundamental change of the global process of capitalist accumulation is in progress. Maybe, then, the *crescendo* has yet to reach its culmination.

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