

# As if nothing were going to happen: a search in vain for warnings about the current crisis in economic journals with the highest impact factors

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**PROVISIONAL DRAFT—please do not quote**

Should students of macroeconomics  
still read the *General Theory*?

No.  
Robert E. Lucas<sup>2</sup>

(...) one might suppose that reading Keynes  
is an important part of Keynesian theorizing.  
In fact, quite the opposite is the case.  
N. Gregory Mankiw<sup>3</sup>

## 1. INTRODUCTION

As late as 2007, two influential economists (Alesina and Giavazzi) were still arguing that there was a need to substitute the Italian pay-as-you-go pension system with a fully-funded, privately-managed one, in which workers would directly choose how to invest their pension savings. One of the most serious drawbacks of such a system - the possibility of large losses for workers - was considered secondary to its advantages, especially since (according to the two economists) this possibility could be kept in check by providing them with a “brief course in finance” (2007: 95)<sup>4</sup>. Today such a proposal appears grotesque when one considers that it was made just before one of the worst economic and financial crises in the history of capitalism. Nevertheless, it is still important because of its potential to stimulate debate on the current state of economic theory.

The first issue we shall deal with in our paper focuses on how aware mainstream economists were as regards the possibility of a crisis comparable to the current one. Clarifying this point can provide information on the usefulness of the prevailing theory as a tool for understanding central

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<sup>2</sup> Snowdon and Vane (1998: 122) .

<sup>3</sup> Mankiw (1992: 560) .

<sup>4</sup> The authors continued in the following way: "since they [workers] can be taught the rules of the road, they can also be taught the rudiments of finance, which are surely simpler than the basics of driving" (Alesina and Giavazzi, 2007: 95). Our translation.

social and economic phenomena. With this purpose in mind, we will conduct a thorough analysis of the articles published over recent years by the economic journals with the highest impact factors. Publishing almost exclusively mainstream economists' papers, these journals are therefore the most suitable source to analyse the views of the orthodox theory on the possibility of a crisis like the one underway. Our analysis brings to light a considerable lack of contributions indicating the existence of such a possibility.

This result gives rise to a second question. What features of mainstream theory prevented ongoing trends from being understood? One way to deal with this issue is to analyse heterodox contributions in which the possibility of the crisis was indeed envisaged. It is our view that the causal relationships singled out in such contributions can provide useful elements to bring into focus the chief shortcomings of the mainstream approach. The contributions we have analysed focus on the increasing levels of household indebtedness, viewed as the means to neutralize the negative impact on consumption of the marked changes in income distribution and increasing social inequalities. In this context, financial deregulation and cheap money are interpreted as the permissive factors of a process of substitution of loans for wages, which brought low wages to coexist with relatively high levels of aggregate demand. The crisis is thus viewed as the outcome of the eventual non-sustainability of rising household debt, and hence of this process of substitution of loans for wages.

In our view, therefore, the causes of mainstream economists' difficulty to envisage the crisis must be sought in their nearly unanimous agreement with the major aspects of a pre-Keynesian form of reasoning, and especially with the idea that the economy's actual output tends to adapt to potential output, and that employment and output levels cannot be constrained by demand. Some years ago Lucas was asked whether he still considered it useful to study the *General Theory*, and he sharply replied in the negative (cf. Snowden and Vane 1998: 122), with a similar opinion having previously been voiced by Mankiw (1992: 560-1). Recent events and the economic and financial crisis prove the current relevance of the question and that a different answer is more than ever required.

## **2. THE PURPOSE OF THE PAPER: ANALYSING HOW PREDICTIVE THE PREVAILING THEORY CAN BE**

In this study we are not analysing current explanations of the ongoing crisis. The main difference between such a study and ours is that we examine only what had been written *before* the crisis began. Although there may be points of contact between the two types of analysis—the causal

relations referred to by scholars who had foreseen the approach of the crisis necessarily give an explanation of its causes — they nevertheless remain distinct.

Clearly the choice we made entails the exclusion of most of the studies on the topic published to date; however, this has certain advantages. First of all, it avoids entanglement in an attempt that might prove to be dated even before reaching a conclusion. It might well be premature to take into account the various points of view on the causes of the crisis, but not to analyse what had been written before the crisis arose. But this alone would not be enough to justify such a temporal limitation. Indeed, our choice stems from our interest in one crucial aspect of the dominant theory: its usefulness as a tool for understanding ongoing central social and economic phenomena and for pointing out what consequences they might have. In brief, we are mainly interested in the predictive ability of mainstream theory over the medium-long term. This characteristic would likely have been overshadowed if we had taken into account also the explanations of the crisis provided ex-post. The approach that we have used, in our opinion, makes it possible to evaluate this ability not in an abstract manner but in relation to extremely important real events; for this reason, its failure would necessarily give rise to an open debate<sup>5</sup>. The purpose of this work is therefore to contribute to the current debate on the validity of the prevailing theoretical paradigm, and on a possible return to the Keynesian point of view on the links between income distribution, aggregate demand and GDP levels.

Before moving on a few remarks need to be made. First of all, we have to set down precise temporal limits to our analysis. As concerns the beginning it only seemed natural to choose 2002, when the expansive phase interrupted by the current recession began in the U.S.; however, in some cases citations led to papers of particular interest published in a previous year. In these cases, we chose to broaden the period of reference for all the journals in consideration, resulting in a two-year extension (2000). More difficult was the choice of the final year to consider. Since it was necessary to exclude all research papers written after the beginning of the crisis, it was a matter of identifying a date which could conventionally be considered a turning point. Despite the fact that significant signs of difficulty were seen in the mortgages sector already in early 2007, it was only in mid June 2007 that the seriousness of the crisis became clear<sup>6</sup>. Problems rapidly arose within the interbank market due to rumors of heavy losses linked to subprime mortgages, forcing the Federal Reserve and the ECB to bring in huge cash injections<sup>7</sup>. Initially it therefore seemed reasonable to establish the summer of 2007 as the end date for our research. However, due to the delays—at times lengthy—with which journals publish the articles submitted to them it seemed preferable to show

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<sup>5</sup> See for example Krugman (2009) and Stiglitz (2009).

<sup>6</sup> Cf. BIS (2008: 94)

<sup>7</sup> Cf. ECB (2007: 32)

more flexibility: in the end, we decided to analyse the available literature up to mid 2009, while only taking into account the articles which had clearly been submitted before the summer of 2007.

We must also specify the works we took into consideration and explain the reasons for our choices. Our main goal—to evaluate the predictive ability of the orthodox theory—required that we choose papers that could unquestionably be considered definitive drafts, authoritative and typical of the points of view of the theory. This immediately led to the exclusion of all publications of a provisional nature (i.e. working papers, discussion papers, etc.), in which the points of view expressed were subject to modifications, and our concentrating on academic journals. Concerning the other two requisites—that they be both authoritative and representative—we opted to make use of the most important bibliometric index currently in use, the Impact Factor (IF). As is well known, the IF ranks journals on the basis of the average number of citations per article published<sup>8</sup>. If we accept that this mechanism gives accurate results (otherwise all indexes based on it would be rendered irrelevant) we can state that the IF provides an indication of what literature economists, taken as a whole, mainly referred to in a given year. Of course, the most frequently cited articles are based almost exclusively on the orthodox theory (otherwise it would not be the prevailing one). Moreover, since they are the most frequently cited articles, they can be considered in their entirety as the literature to which orthodox economists mainly make reference. There would otherwise be no way to explain the most widely held belief among orthodox economists, according to which the journal rankings based on the IF are indicative of the scientific value of the articles within. This is a point of view which heterodox economists—whose articles are almost never published in those journals—cannot but disagree with<sup>9</sup>. However, what is important when evaluating the predictive ability of a theory is what the economists supporting *that* theory hold to be authoritative and representative about it—not what opponents of the theory hold to be. This is why we chose to focus on the journal with the highest IF.

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<sup>8</sup> The Journal Citation Reports (JCR) calculates the two indexes we will use in this work (see the following footnote), the Journal Impact Factor (IF) and, beginning in 2007, the 5-year Journal Impact Factor. We quote in full the definitions of the two indexes provided by the JCR: “The Journal Impact Factor is the average number of times articles from the journal published in the past two years have been cited in the JCR year. The Impact Factor is calculated by dividing the number of citations in the JCR year by the total number of articles published in the two previous years. An Impact Factor of 1.0 means that, *on average*, the articles published one or two years ago have been cited one time. An Impact Factor of 2.5 means that, on average, the articles published one or two years ago have been cited two and a half times. Citing articles may be from the same journal; most citing articles are from different journals.” (italics in the original text) “The 5-year journal Impact Factor is the average number of times articles from the journal published in the past five years have been cited in the JCR year. It is calculated by dividing the number of citations in the JCR year by the total number of articles published in the five previous years. The 5-year Impact Factor is available only in JCR 2007 and subsequent years (...)” Cf. [http://admin-apps.isiknowledge.com/JCR/help/h\\_impfact.htm](http://admin-apps.isiknowledge.com/JCR/help/h_impfact.htm).

<sup>9</sup> The evaluation of studies in economic disciplines by indirect indexes like the IF has recently been criticized by some of the most important heterodox scholars, including Pierangelo Garegnani and Luigi Pasinetti. See “Open Letter on the Evaluation of Research in Economics”, available at <http://www.heterodoxnews.com/htnf/htn78/Open%20letter.pdf>

The journals we selected were the following: *American Economic Review*, *Brookings Papers on Economic Activity*, *Econometrica*, *Economic Journal*, *Economic Policy*, *Journal of Economic Growth*, *Journal of Economic Literature*, *Journal of Economic Perspectives*, *Journal of Financial Economics*, *Journal of International Economics*, *Journal of Monetary Economics*, *Journal of Political Economy*, *NBER Macroeconomics Annual*, *Quarterly Journal of Economics*, *Review of Economics and Statistics*, *Review of Economic Studies*<sup>10</sup>.

### 3. RESEARCH FINDINGS

Such wide ranging research as described above would likely not have been very effective without having previously established a benchmark criterium. The simplest among the various possibilities we took into consideration was also the one found to be the most reliable: among all the possible articles on the U.S. economy we selected those in which concerns were voiced over future trends. As will soon become clear, in all these articles reference is made to risks that a non-orthodox reader can see as having sprung from the growing indebtedness of American households. However, this phenomenon never explicitly appears among the reasons for concern found in the most important economic journals over the past few years. In any case, interpretations of an opposite slant exist which consider the growing private indebtedness as a mostly positive phenomenon: an important issue from a theoretical point of view to which we will return. For the time being, we will focus on what emerged in an explicit manner from the research conducted.

We divided the articles we selected into different groups. One is made up of works in which an attempt is made to understand whether the enterprises known as Fannie Mae and Freddie Mac represented a risk to the American financial system. A second group includes articles which focus on the analysis of the U.S. real estate market, in which an attempt was made to understand whether the rise in house prices was of a speculative nature and whether the phenomenon would soon see a drastic turnaround.

In previous years, in contrast with what we are seeing today, the debate on systemic risk<sup>11</sup> focussed predominantly on Fannie Mae and Freddie Mac. In particular, the spotlight was on the possibility that financial problems experienced by these enterprises would have serious

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<sup>10</sup> The methodology we used is the following. We took into consideration the top 20 journals according to the 5-year IF of 2007 and 2008 (the only years available so far) We then added all the journals that at least once since 2000 were within the top 10 on the basis of the IF. From the resulting list we excluded the following ten journals since they seemed too highly specialized to prove of use for our purposes: *Economic Geography*, *Energy Journal*, *Health Economics*, *Industrial and Corporate Change*, *Journal of Accounting and Economics*, *Journal of Econometrics*, *Journal of Economic Geography*, *Journal of Health Economics*, *Journal of Labor Economics*, *World Bank Research Observer*.

<sup>11</sup> According to the ECB (2004: 59) systemic risk is “the risk that the inability of one institution to meet its obligations when due will cause other institutions to be unable to meet their obligations when due. Such failure may cause significant liquidity or credit problems and, as a result, could threaten the stability of or confidence in markets.”

consequences for the real economy, due to how large they had grown. The debate was undoubtedly stimulated in part by a number of attempts made by the Federal Reserve to induce Congress to introduce reforms (Greenspan 2004 and 2005, Bernanke 2007). However, the main journals published few articles on the subject. A possible explanation could be that the risk to the US economy was seen as serious but not imminent<sup>12</sup>, and therefore the subject was dealt with mostly in specialist journals. Moreover, it should be noted that not every article on the activities of the two enterprises dealt exclusively with this aspect or that such concerns were shared by all. Peek and Wilcox (2006), for example, analysed the effects of development in the secondary mortgage market - due in large part to Fannie Mae and Freddie Mac (Cf. Greenspan 2004) - and concluded that the latter had reduced fluctuations in residential investment and real GDP, thereby contributing to the “Great Moderation” (Peek and Wilcox 2006: 139). As noted by Frame and White (2005: 175, n.11), some also believed that the two enterprises made the American financial system less vulnerable to external shocks. However, the theory of systemic risk seemed widespread (though to varying extents) among orthodox economists, and was supported by those in the upper levels of the Federal Reserve. It is on this that we therefore focus. The starting point of the argument was the status of the Government Sponsored Enterprises (GSEs) Fannie Mae and Freddie Mac: a case of (private) enterprises set up by Congress in order to pursue certain objectives, in particular to supply liquidity to the real estate mortgage sector. For this reason their activities were subject to certain restrictions, first and foremost their only being allowed to work on the secondary market and therefore not able to directly grant mortgages. While they did have to abide by such limitations, they also enjoyed privileges compared with other private enterprises, such as the “exemption from state and local income taxes” (Cf. Frame and White 2005). The most important was in any case of an implicit manner (Cf. Krugman 2008). Among operators the conviction was widely held (and later proven true) that in the case of difficulty the two enterprises would not have gone bankrupt since the government, despite the fact that it was under no obligation to do so, would undoubtedly have intervened to help them. Thanks to this conviction, they were able to borrow— despite already high leverage – at rates which were only slightly above those on US government bonds. They were therefore able to bring in certain profits by getting into debt and using the capital obtained to acquire other mortgages. Hence, there was an incentive to growth in size, which progressively worsened the systemic risk. The rise in systemic risk further strengthened the conviction that the

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<sup>12</sup> “Fannie Mae and Freddie Mac are in strong financial condition today, and the possibility of either Enterprise failing or contributing to a financial crisis is remote. (...) Nevertheless, it is useful to consider, hypothetically, what systemic impact an Enterprise could have on the housing market and financial system” (OFHEO 2003: 1).

passivity of the two enterprises – which had by now become “too big to fail” – had a de facto guarantor in the form of the government.

The origin of the risks which it was believed Fannie Mae and Freddie Mac exposed the US real economy to – directly in the case of bankruptcy, by way of the increase in public debt if the government were to intervene – was therefore found in the particular nature of their status as GSEs and for this reason not subject to market rules in many senses. According to Frame and White (2005: 180), the first-best solution consisted in the complete privatisation of the two enterprises. They would then not have enjoyed any privileges and would have operated freely on financial markets. The only drawback that the authors could see was a slight increase in interest rates on mortgages, equal to 20-25 base points, the effects of which would easily have been compensated for by measures to support first-time home buyers with low and moderate incomes. An alternative, more realistic solution – according to the same authors – was the adoption of measures which while leaving the legal form of the two enterprises unchanged would have emphasised the distance from the government. In particular,

“One useful step would be for the government official to state clearly, whenever the subject comes up, that the federal government does not guarantee the debt of Fannie Mae or Freddie Mac and will not bail them (or their creditors) out.” (Frame and White 2005: 181)<sup>13</sup>.

In light of what we have said in this section, the bailing out of the two GSEs by the government - as occurred in September 2008– could seem to confirm the grounds for concern expressed by those stressing the risks connected with the semi-public nature of the two enterprises. However, it would be a superficial interpretation. In reality, the argument that Fannie Mae and Freddie Mac are the main culprits of the crisis does not appear widely-held even among those who see the origin of the crisis within the financial sector. Against such an interpretation, put forward for example by Calomiris and Wallison (2008)<sup>14</sup>, the opinion held by Greenspan seems worthy of note, since he can in no way be considered prejudiced against private financial sector . In “The Financial

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<sup>13</sup> A position between the two that we have illustrated – the one held by Peek and Wilcox (2006) and the one by Frame and White (2005) – is that of Green and Wachter (2005). These authors recognised the existence both of risks and of advantages connected with the two GSEs, without however clearing up the question of which of the two should be considered predominant. Take, for example, the following quote: “Any risk that the implicit government guarantees for Fannie Mae and Freddie Mac might bring on a systemic crisis must be weighed against their ability in other settings to advance the stability of the financial system.”(Green and Wachter 2005: 112) And at the end of their article, they state that:“(…) the risk that Fannie Mae and Freddie Mac will malfunction in a way that will either cost the federal government a lot of money (...) is real. But the benefits from the current U.S. system of mortgage finance for borrowers and macroeconomic stability are also real and should not be lightly discarded.”(Green and Wachter 2005: 112)

<sup>14</sup> “Many monumental errors and misjudgements contributed to the acute financial turmoil in which we now find ourselves “Nevertheless, the vast accumulation of toxic mortgage debt that poisoned the global financial system was driven by the aggressive buying of subprime and Alt-A mortgages, and mortgage-backed securities, by Fannie Mae and Freddie Mac. The poor choices of these two government-sponsored enterprises (GSEs) -- and their sponsors in Washington -- are largely to blame for our current mess.” (Calomiris and Wallison 2008)

Crisis and the Role of Federal Regulators” hearing held on 23 October 2008 before the Committee on Oversight and Government Reform, in response to a very direct question, Greenspan explicitly ruled out the theory that Fannie Mae and Freddie Mac were the “primary cause” of the financial crisis<sup>15</sup>. In the same circumstance, a similar opinion was expressed both by John Snow (former Treasury Secretary) and by Christopher Cox (Chairman of the Securities and Exchange Commission).

Even stronger were the words used by Krugman (2008):

“Fannie and Freddie had nothing to do with the explosion of high-risk lending a few years ago, an explosion that dwarfed the S. & L. fiasco. In fact, Fannie and Freddie, after growing rapidly in the 1990s, largely faded from the scene during the height of the housing bubble. Partly that’s because regulators, responding to accounting scandals at the companies, placed temporary restraints on both Fannie and Freddie that curtailed their lending just as housing prices were really taking off. Also, they didn’t do any subprime lending, because they can’t: the definition of a subprime loan is precisely a loan that doesn’t meet the requirement, imposed by law, that Fannie and Freddie buy only mortgages issued to borrowers who made substantial down payments and carefully documented their income”.

The growth in real estate values beginning in the mid-1990s gave rise to debate over whether a new speculative phenomenon was underway after the one seen in dot-com companies. Simply the fact that such debate arose is a direct consequence of a progressive reduction in agreement concerning the Efficient Market Hypothesis (EMH)<sup>16</sup>, a theory which became the prevailing one during the 1970s in the intellectual climate of rational expectations<sup>17</sup>. According to the EMH, arbitrage impedes the market price of an asset from distancing itself in a lasting manner from the present value of expected yields (“fundamental”). Since all relevant new information—i.e. information influencing the fundamental—would quickly become embedded in the price, a variation in the latter would necessarily result in a corresponding variation of the fundamental. A speculative bubble—defined as a persistent increase in the price not due to the fundamental but to the expectation of future increases in the price itself<sup>18</sup>—is therefore a phenomenon which the EMH seems unable to explain.

An attempt used to defend the theory consisted in admitting the possibility of divergences—even substantial ones—in the short term between market prices and the fundamental, thereby considering the EMH as a theory for the long term<sup>19</sup>.

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<sup>15</sup> The preliminary hearing transcript is available at <http://oversight.house.gov/story.asp?id=2256>.

<sup>16</sup> “A generation ago, the efficient market hypothesis was widely accepted by academic financial economists” (...) “By the start of the twenty-first century, the intellectual dominance of the efficient market hypothesis had become far less universal.” Malkiel (2003: 59-60). See also Shiller (2003: 83)

<sup>17</sup> See Fama (1970, 1991 and 1998), Samuelson (1965).

<sup>18</sup> According to Stiglitz (1990: 13): “if the reason that the price is high today is only because investors believe that the selling price will be high tomorrow—when ‘fundamental’ factors do not seem to justify such a price—then a bubble exists.”

<sup>19</sup> “What I do not argue is that the market pricing is always perfect. After the fact, we know that markets have made egregious mistakes, as I think occurred during the recent Internet “bubble”. Nor do I deny that psychological factors influence securities prices. But I am convinced that (...) while the stock market in the short run may be a voting



It should therefore come as no surprise that among those who supported the theory of a real estate bubble there were authors known as being critical of the EMH, in particular Robert Shiller<sup>20</sup>. It is, however, worthy of note that even when this theory was supported it was in a very cautious manner. Initially caution was directed at the extent of the phenomenon. Significant on this point are closing remarks of Case and Shiller (2003: 341-2):

“(…) our analysis indicates that elements of a speculative bubble in single-family home prices—the strong investment motive, the high expectations of future price increases, and the strong influence of word-of-mouth discussion—exist in some cities. (…) it is reasonable to suppose that, in the near future, price increases will stand and that prices will even decline in some cities. (…) However (…) a nationwide drop in different cities are not likely to be synchronous (…). Such a lack of synchrony would blunt the impact on the aggregate economy of the bursting of housing bubbles”.

Three years later, Shiller seemed markedly more alarmed:

“(…) this boom, which begun in the late 1990s, is probably the biggest home price boom the United States has ever seen” (Shiller 2006a: 59).

Caution nevertheless remained as concerns the way—drastic or gradual—in which the growth in real estate prices would come to an end, and therefore as concerns the possible consequences on activity levels. (Shiller 2006b)

The theory of a speculative bubble, at least in the journals that we studied, did not gain general consensus. The growth in real estate values was for the most part explained in other ways. For example, Glaeser, Gyourko and Saks (2005: 329), after having noted that the price increase was seen only in a limited (though growing) number of metropolitan areas, supported the view that it had been caused by regulatory limits to supply. Himmelberg, Mayer and Sinai (2005: 68) were skeptical over the existence of a bubble (“our calculations do not reveal large price increases in excess of fundamentals”). The increase in prices was therefore explained by a consistent trend in fundamentals (“recent price growth is supported by basic economic factors such as low real long-term interest rates, high income growth and housing price levels that had fallen to unusually low levels during the mid-1990s”). The possibility that prices would decrease in the short term was not ruled out, but once again this was dependent on a prior variation in fundamentals (p.90). Smith and Smith (2006: 47), authors of a paper significantly entitled “Bubble, Bubble, Where’s the Housing Bubble?” come to an even strong conclusion:

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mechanism, in the long run it is a weighing mechanism. True value will win out in the end..” (Malkiel, 2003: 61). Greenspan (2007: 466) seemed agree with this point: “When markets are behaving rationally, as they do almost all the time, they appear to engage in a ‘random walk’: the past gives no better indication than a coin flip of the future direction of the price of a stock. But sometimes that walk is interrupted by a stampede. When gripped by fear, people rush to disengage from commitments, and stock will plunge. And when people are driven by euphoria, they will drive up prices to nonsensical levels.”

<sup>20</sup> See Shiller (1981, 2003); see also Case and Shiller (1989).

“In a bubble, market prices rise far above fundamental values (...) By this definition there was no bubble in the prices of single-family homes in 2005”.

It cannot therefore be said that the tools provided by the orthodox analysis proved useful in this field. Those making use of the latter did not, as we have seen, identify any reason for serious concern over the real economy. Moreover, it is significant that the only alarm signals seen were raised by authors analysing the market from a different point of view and in open opposition with the prevailing one.

#### **4. SOME HETERODOX CONTRIBUTIONS**

Therefore, concerns over the possibility of a wide ranging economic crisis do not seem present in the articles which can be traced back to the mainstream theory. The situation appears quite different when one considers a wider set of journals. Here there are some analyses which, before the crisis emerged, pointed out the elements that could cause it.

The contradiction which could bring on a recession, which in turn could develop into a crisis, had already been noted in a May 2000 article in the Monthly Review:

“increasing inequality in income and wealth can be expected to create the age-old contradiction of capitalism: on the one hand, sluggish consumer demand narrows the marketability of the goods that capital needs to sell; on the other, profitable investment opportunities depend ultimately on vigorous growth in the effective demand for consumer goods” (Foster, Magdoff 2000).

The two authors, John B. Foster and Fred Magdoff, pointed out that the rapid growth in income and consumption in the second half of the nineties was not accompanied by rising real incomes for the majority of the population, who were not well-off and whose wages on the contrary were stagnant on the whole. Given the greater propensity of low income households to consume, this income redistribution could be expected to check the growth of consumer demand. On the contrary, as Foster and Magdoff also pointed out, the growth in the second half of the nineties was boosted by consumption more than any other economic expansion after the Second World War. And so, where exactly was this huge consumption boom coming from?

“The obvious answer – or a good part of it – is that in the period of stagnant wages, working people are increasingly living beyond their means by borrowing in order to make ends meet (or, in some cases, in a desperate attempts to inch up their living standard” (Foster, Magdoff 2000).

In their view, this idea was corroborated by the marked increase in household debt and by the fact that it increased in proportion to disposable income for the majority, and hence those living on

lower incomes, while it was proportionately much more moderate for households with an income of almost 100,000 dollars a year. This led Foster and Magdoff to surmise that the expansion in the second half of the nineties was fuelled to a great extent by household indebtedness, and mainly by households belonging to the low or middle-income classes. Furthermore, the increase in debt was mainly related to one of the most affordable kinds of indebtedness for the vast majority of the population, i.e. mortgages and home-equity loans, which were bolstered by refinancing and new loans secured by the rise in home prices.

In Foster and Magdoff's opinion, the marked growth of indebtedness and the fact that it was mainly related to the low-mid income majority helped to bring about an increasing financial insecurity for many households, as can be seen by the rise in foreclosures and insolvencies. This situation, they maintained, would be necessarily made worse by possible rises in interest rates, which would put an end to the "bull markets that (...) have been fueling consumer spending" (Foster, Magdoff 2000). Foster and Magdoff believed that in order to deal with this situation income redistribution would be required sooner or later, not so much to improve workers' standard of living but simply so that they could finance accumulated debt.

In May 2006 Foster published another article in the Monthly Review based on the analysis drawn up with Magdoff six years before. He noted the stagnation of real wages in the last few decades (with the exception of a small rise in the second half of the nineties) and the fact that nevertheless,

"rather than declining as a result, overall consumption has continued to climb. Indeed, U. S. economic growth is ever more dependent on what appears at first glance to be unstoppable increases in consumption" (Foster 2006).

The paradox of declining wages as a share of national income accompanied by soaring consumption can be explained, Foster reasserted, in light of the substantial indebtedness of households in proportion to disposable income, a phenomenon involving mainly the low-mid income brackets. This is also shown by the fact that the most sizeable portion of their debt is secured by primary residences, the main asset of the vast majority of households:

"In this general context of rising household debt, it is of course the rapid increase in home-secured borrowing that is of the greatest macroeconomic significance, and that has allowed this system of debt expansion to balloon so rapidly. Homeowners are increasingly withdrawing equity from their homes to meet their spending needs and pay off the credit card balances (...). The fact that this is happening at a time of growing inequality of income and wealth and stagnant or declining wages and real income for most people leaves little doubt that it is driven to a considerable extent by need as families try to maintain their living standards."<sup>21</sup>

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<sup>21</sup> Foster 2006. "Americans have been using their houses as Mastercards", Doug Henwood maintained in an article quoted in Foster 2006, in which the end of rising home prices and a crisis were forecast: "So many households have taken on so much mortgage debt that if prices merely stop rising, they're going to find themselves under water" (Henwood 2006).

The trend seen towards a redistribution resulting in wages accounting for a lower share in income, Foster maintained, is in any case of serious concern for an economy whose growth has become more and more dependent on private consumption. In his view, the most likely result of a further increase in household indebtedness would eventually be the financial meltdown of the entire system:

“There is no growth miracle whereby a mature capitalist economy prone to high exploitation and vanishing investment opportunities (and unable to expand net export to the rest of the world) can continue to grow rapidly – other than through the action of bubbles that only threaten to burst in the end”(Foster 2006).

Some of the factors pointed out in the two articles in the Monthly Review are also at the root of the analysis - in many respects broader and more detailed - made by Aldo Barba and Massimo Pivetti. Though published at the beginning of 2009 in the *Cambridge Journal of Economics*, the first version of the article had already been submitted to the journal in July 2007.

Barba and Pivetti also took the view that the substantial growth in household debt occurring in the last few decades in the U. S. economy is the result:

“of the effort by low and middle-income households to maintain, as long as possible, their relative standards of consumption in the face of persistent changes in income distribution in favour of households with higher incomes” (Barba, Pivetti 2009: 121-2).

Barba and Pivetti observed that increasing indebtedness had been seen mainly in low and middle-income households.<sup>22</sup> Owing to the rise in home prices, household debt has been bolstered through the refinancing of existing mortgages and new borrowing secured on the increased value of houses already securing previous loans: these two forms of indebtedness were used in to a considerable extent for purchasing goods and services. All this led to a decline in the household saving rate and, in turn, in the saving rate of the private sector of the economy.<sup>23</sup> At the same time households’ liabilities grew considerably (Barba, Pivetti 2009: 116 and 123-4).

Thus, increased household debt would appear to provide the solution

“to the fundamental contradiction between the necessity of high and rising levels of consumption, for the growth of the system’s actual output, and a framework of antagonistic conditions of distribution, which keeps within limits the real income of the vast majority of society” (Barba, Pivetti 2009: 127).

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<sup>22</sup> “(i) the highest debt-to-income ratios are found at the low and middle-sections of the income distribution; (ii) debt relative to the value of assets held also tends to be the highest among indebted households at the low and middle sections of income distribution; and (iii) the debt-service ratio of indebted households is highest for lower-income households” (Barba, Pivetti 2009: 113-4).

<sup>23</sup> The private saving rate, Barba and Pivetti pointed out, had reached its lowest level since the Great Depression. In 2006, bank lending to households (including mortgages and consumer lending) was double bank lending to businesses, while in 1995 it was less than 70 per cent of the latter (Barba, Pivetti 2009: 125).

However, as Barba and Pivetti remark, this “process of substitution of loans for wages” cannot go on indefinitely. Given disposable income, household debt and the burden of servicing it cannot be accumulated beyond a definite amount. The larger the accumulated debt and the difference between the average interest rate paid on the debt and the growth rate of the household disposable income, the larger savings must be in order to maintain the debt to disposable income ratio at least stable (Barba, Pivetti 2009: 127 and 135-6). It is plainly a constraint tending to become increasingly severe in a situation like the one outlined above, in which real wages are stable or increase less than productivity (and therefore decline as a proportion of income) and households are already heavily in debt. In this situation, with wages capable of absorbing an ever more reduced share of the output, household debt is limited to an ever greater extent.

The sustainability of the process through which household indebtedness bolsters a consumer demand that wages are less and less capable of absorbing can be protracted, Barba and Pivetti maintain, by two means. Firstly, by trying to involve an increasing number of households in the indebtedness process, even at the cost of an increasing risk of default: e. g., the case of the so-called subprime loans. Secondly, by a policy of a progressive lowering of interest rates in order to maintain stock exchange quotations and home prices high, as well as – and especially - to reduce the debt service in proportion to disposable household income. This was the monetary policy pursued by the Federal Reserve in the 1995-2005 period (Barba, Pivetti 2009: 128-9). However, Barba and Pivetti assert, a day of reckoning must necessarily one day come as regards substituting household indebtedness for an increase in real wages. And this day would come sooner if monetary policy were to change, bringing in a rise in interest rates, or if home prices fell considerably; in this contingency households’ financial distress would be exacerbated more rapidly. In both the situations the necessary result would be a sharp drop in households’ propensity to borrow and access to credit, which would result in a fall in aggregate demand and activity levels.

The issue of the sustainability of U. S. household debt was also raised by Christopher Brown in a 2004 article in the Review of Political Economy concerning the relationship between income distribution and the level of effective demand. Brown asserted that the growth in consumption observed in the last twenty years, even for low and middle-income households, can be explained only through the widened credit availability and, at the same time, the higher propensity to make recourse to it:

“A softening of the income constraint for those in the middle and lower echelons of the income hierarchy has the potential to raise spending and the propensity to consume (...). It follows that the aggregate propensity to consume can remain stable, or even increase, amidst a sharp increase in income inequality – given a sufficient surge in borrowing” (Brown 2004: 303).

This does not mean that consumption growth can be financed indefinitely through household indebtedness:

“it is difficult to overstate the importance of the consumer lending industry in sustaining the demand for consumer goods (...). But as things stand, growth may not be possible unless a significant segment of the population continues to be willing to borrow on a scale that creates or intensifies budgetary pressure on the household” (Brown 2004: 305).

The issue was once again taken up in a broader way in an article in the spring of 2007 in the *Journal of Post Keynesian Economics*<sup>24</sup>, in which Brown examines the role played by financial engineering in making it possible to expand household indebtedness. Brown maintains that the financial innovations of the last few decades has made it possible to convert mortgages and consumer loans into marketable assets (securitization), whereas previously they had been essentially illiquid assets. This occurs by structuring them into lots (not necessarily homogeneous as regards risk and yield) and then placing them through the market, usually with institutional portfolios<sup>25</sup>. Holders of the marketable assets thus created can in turn hedge against the risk connected with collateral securities through the creation of derivatives, which provide for a number of conditions, e. g., sale at a specified price at a specified future date. The process of securitization, Brown maintains, is nothing but a technique for diversifying the risk. The collateral of each lot of marketable assets consists of a multitude of small loans, so that the exposure to the risk arising from the behaviour of a single borrower is reduced on the whole<sup>26</sup>. This made credit easier to obtain also for middle and low-income households, who use loans mainly to finance the purchase of goods and services:

“The practical effect of widened and deepened credit availability is to soften the budget constraint – that is, to free spending from the discipline imposed by current income. (...) borrowing is an expedient by which individuals are able to maintain their consumption status vis-à-vis other social classes in the face of rising income disparities” (Brown 2007: 445).

The result, in broader terms, is that

“[f]inancial engineering boosts aggregate demand because it effectively raises the maximum amount that could be borrowed by households at virtually every tier of the creditworthiness hierarchy” (Brown 2007: 441).

In such a way, however, the conditions are created for the emergence of financial instability. In order to illustrate the indebtedness situation of households, Brown used a taxonomy introduced by Minsky, according to which they can be divided into: a) *hedge units*, whose income is adequate to repay the debt and interests accruing on it over time; b) *speculative units*, whose income is adequate

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<sup>24</sup> An earlier version of the article had been presented at the April 2006 meeting of the Association for Institutional Thought.

<sup>25</sup> In such a way, “[t]he securitization of consumer receivables removes the constraints on the expansion of mortgage or consumer lending imposed by the general distaste of wealth controllers for nontradable assets” (Brown 2007: 432).

<sup>26</sup> Brown 2007: 442. Brown disregards that, for the same reason, each lot of securities is characterized by a certain opacity, which can lead investors to underestimate the risk, thus facilitating lending still further.

to pay interests, but not the debt itself (which therefore must be renewed continually); c) *Ponzi units*, whose income does not allow them even to pay interests, and who must therefore accumulate new debt only to meet the interest outlay. An expansion of consumption and output supported by the indebtedness of households must necessarily result, in Brown's opinion, in the migration of a part of them from the hedge status to the speculative one, and from this to the Ponzi one. Data from the *Survey of Consumer Finances*, which mainly refers to the period since the mid-1990s, appears to confirm this view (Brown 2007: 448-9). The progressive worsening of the household financial situation, Brown remarks, is "potentially catastrophic"; sooner or later it will result in an increase in defaults (already observable in 2005), a credit squeeze and, therefore, a contraction of consumer spending (Brown 2007: 439). As a matter of fact, Brown sums up, growth based on household indebtedness and on the financial innovations facilitating it is not capable – except for a short period – of solving the problem of aggregate demand insufficiency and of preventing the emerging of a crisis:

"The debt-financed consumption boom of the late 1990s and early 2000s (...) created the illusion that the hollowing out of the income distribution function need not have detrimental macroeconomic consequences. [Financial innovations] do not solve the problem of the insufficiency of effective demand – they merely postpone it"(Brown 2007: 452).

Before the crisis arose, therefore, analyses can be found asserting the long-term non-sustainability of growth similar to that occurring in the U.S. over the past few decades, based on household indebtedness as an alternative to the increase in wages to support consumption expansion. Two conditions are common to these analyses: 1) the independence of investment decisions on saving decisions, and 2) the importance, which follows from the first condition, of increasing consumption for income growth.

The first condition can plainly be traced back to Keynes's analysis and entails the reversal of the prevailing theoretical approach. In this approach the flexibility of prices and monetary wages resulting from competition should constantly bring the economic system to its potential output. The possibility that an insufficient level of aggregate demand prevents actual output from adjusting to potential output would be left out, at least in the long period, since (according to the mainstream theory) variations in interest rate would be capable of adjusting investment decisions to saving decisions associated with any level of consumption, thus providing the level of aggregate demand necessary to absorb any volume of production (and therefore potential output as well)<sup>27</sup>. The exact opposite point of view was taken in the articles in which, even before it emerged, the possibility of a crisis was taken into consideration. It presupposes that a tendency of investment decisions to adjust

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<sup>27</sup> In this idea of investment adjusting to the supply of saving, what really matters is the flexibility of interest rate as a consequence of any divergence between them – and, at an even more basic level, the inverse relationship between the rate of interest and the volume of investment.

to saving decisions through variations in interest rate does not exist in the economic system; however, saving decisions do adjust to those of investment through variations in output. In other words, according to this view there is no spontaneous tendency of the economic system to bring about a level of aggregate demand capable of absorbing any volume of production. Consequently it is aggregate demand that determines the potential of output expansion. Only on this basis is it possible to analyse the role played by household indebtedness – as an alternative to increasing wages – in bringing about the fall of the saving rate and, as a result, the expansion of consumption and aggregate demand to a sufficient extent to allow output growth. In the same way, on this basis it is possible to assert that, once household indebtedness is no longer sustainable, the drop in consumption – caused by the credit squeeze – will turn into a crisis of vast proportions.

From the last remarks it plainly emerges that the second condition – the importance of the increase in consumption for the growth of income – follows directly from the idea of the independence of investment decisions from saving decisions. In broader terms, if aggregate demand does determine activity levels and the output of an economic system, an expansion of them normally requires an increase in consumption in addition to that in the other component of demand (investment, public expenditure and exports). In the prevailing approach this is not needed, since – as we have seen - an insufficient level of consumption would tend to be offset by higher investment, in this way providing an aggregate demand capable of absorbing potential output.

This view explains the position that, before the emergence of the crisis, mainstream analyses took as regards the issue of household indebtedness. They did not see this phenomenon as the consequence of wage stagnation, and therefore of the insufficiency of consumer demand as financed by current income, but as the result of the maximizing behaviour of households, which – once financial innovations and a policy of lowering interest rates have softened liquidity constraints – would try to level their consumption by means of indebtedness, in line with life-cycle or permanent income theories (see, e. g., Barnes, Young 2003: 17-8; Debelle 2004: 2-4; Dynan, Kohn 2007: 3-4). As for the question of the sustainability of household indebtedness, this was not seen as a source of concern owing to the sharp drop in consumption and income which debt accumulation could eventually cause. The financial situation of households was not regarded as a problem in itself, but only as a fact that could amplify the cyclical fluctuations affecting the economic system because of different kinds of shocks:

“Increased household indebtedness, in and of itself, is not likely to be the source of a negative shock to the economy. Rather the primary macroeconomic implication of high debt levels will be to amplify shocks to the economy coming from other sources” (Debelle 2004: 37).



Moreover, a monetary policy taking this problem into account could reduce, in Debelle's opinion, the amplitude of these fluctuations (Debelle 2004: 37) . These assertions require confidence in the capacity of the economic system to absorb any given volume of production, as well as in the effectiveness of monetary policy, as can be seen in remarks like the following:

“Although high debt service obligations relative to income would appear to leave households more open to unexpected changes in income and interest rates, many macroeconomic shocks involve the demand for goods and services and tend to lead to offsetting movements in income and interest rate” (Dynam, Kohn 2007: 110).

## CONCLUSIONS

What stands out in the articles taking a Keynesian approach is not only the awareness of the possibility of an economic crisis of vast proportions. It is also the fact that these analyses use theoretical tools admitting of the possibility of a crisis. It is a situation opposite to that of the prevailing theory, in which the idea that the economic system tends to gravitate around potential output seems to have prevented the possibility itself of imagining a crisis like the current one.

It is reasonable to believe that over the next few years there will be theoretical developments to include within the orthodox analysis the possibility of large contractions of GDP and employment levels, contractions of an extent comparable to those which would have occurred in this crisis without massive state intervention. Likewise, it seems reasonable to expect that these developments could lead to recommendations for stricter regulation on credit and finance due to imperfections in these sectors which the theory, in particular macroeconomic theory, has not taken into account. In such a line of development of theory and policy recommendations, we see the following risk: that the introduction of tighter credit and finance regulation - without having previously dealt with the problem of stable income redistribution for workers, possibly through public expenditure and taxation - would likely lead to lengthy stagnation in the U.S., and therefore in the rest of the world. Orthodox theory seems unable to imagine a recovery in the growth process that must occur through changes in distribution in contrast with those which have occurred over the past thirty years, which is why the emphasis has been placed on regulation of the credit and finance sector.

Undoubtedly, part of this tendency also derives from a defensive mechanism. Those accepting the dominant theory find themselves in the uncomfortable situation of having to explain why, after for many years of seeing the policy recommendations based on the orthodox theory implemented, one of the worst crises in the history of capitalism has occurred. Therefore they are obliged to explain—to the public as well—why those policy recommendations should not now be considered among the causes themselves of the crisis. Focusing on bad regulation for which the theory can in no way be considered to blame - is a convenient way to reply to such objections.

The theories which acknowledge that production is limited by demand and the validity of the Keynesian principle of effective demand find themselves in an entirely different situation. In at least some of these theories, the existence of a causal relationship between wages and GDP trends is explicitly acknowledged in reference to both the short and the long term. In our view, it is by focusing on this relationship—and therefore on the need for stable income distribution in favor of workers—that heterodox economists have the best possibility to bring about significant change within theoretical analysis and the prevailing directions for economic policy.

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