

How can we explain the persistence of the Great Recession? A Balanced Stability Approach

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The Great Recession (GR) creates a stalemate in macroeconomics. On the one hand, standard approaches fail to account for its persistence in a credible way (mainly stress government failures as its deep causes, for example) due to their implicit assumption that the economy is internally stable. On the other, heterodox approaches fail to regain consensus. While often correctly stressing that the roots of the GR lie not only in developments within the financial sector but also in a lack of aggregate demand, they fail to devise an alternative method for showing why this problem has arisen in a systematic way. This paper fills the gap by proposing a new framework called the Balanced Stability Approach. Unlike standard macro, which takes stability for granted, it provides a balanced assessment of stability, considering both positive and problematic aspects of the so-called New Economy (NE), in a broad interdisciplinary perspective. On these grounds, the paper draws the conclusion that the low level of aggregate demand underlying the GR is rooted in a number of wider structural changes generated by the NE.

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1. Introduction

The peculiarity and persistence of the Great Recession (GR) has plunged macro into disarray. As noted for example by Andrew Lo in his review of 21 books in the *Journal of Economic Literature*, not only is there ‘still significant disagreement as to what the underlying causes of the crisis were’ (Lo, 2012, p. 173) among various authors, but the latter also fail to provide a complete and coherent understanding of the GR and its enormous complexity.

This paper holds that the best way to improve this understanding is not to rely on an eclectic strategy such as that proposed by Lo himself, according to whom we should ‘collect a diverse and often mutually inconsistent set of narratives of the GR for the same set of objective facts ... and hope that a more nuanced and internally consistent understanding of the crisis emerges in the fullness of time’ (ibid., p.154), but to try to discover the reasons why this gap between the complexity of the GR and the analyses of its causes arises.

According to this paper, this gap is due to lack of a consistent and general approach to macroeconomic stability in the literature. First of all, the standard paradigm is in crisis due to its internal stability assumption. In particular, writing about the GR, and ‘just assuming’ as a matter of faith that the economy is internally stable, as standard macroeconomists do, only allows a very limited understanding of the GR: it is like writing *Hamlet* without the prince.ⁱ This assumption leads standard theorists to rely on a deductivist method that implies that events such as the GR are either impossible or due to external factors. This is why these theorists focus on exogenous shocks, such as financial frictions (see e.g. Hall, 2010, Woodford, 2010) and negative shifts in productivity in the construction sector (Minford, 2009) or in labour markets (Ohanian, 2010), to account for the most immediate impact of the financial crisis on the economy or identify instead various types of government failures – such as fragmented regulatory structure, political influence on credit and housing markets or over-expansionist monetary policy – as the deep causes of the housing bubble and the GR (see e.g. Taylor, 2009, Rajan, 2010).

Secondly, the rejection of the internal stability assumption by several heterodox accounts does not automatically open the way to a unique, general and consistent approach to the analysis of the deep causes of the GR and macro stability. On the one hand, while rejecting the above assumption, distinguished critics of the current orthodoxy, such as Stiglitz (2010) and Akerlof and Shiller (2009), capture only a ‘moderate’ degree of internal instability, which can somehow be ‘fixed’ with appropriate

reforms or better information. They explain the financial crisis by tracing it to more significant developments within the financial sector itself, such as lax regulation allowing excessive leverage and risk-taking, irrational exuberance and misaligned incentives encouraging bad lending and distortions in the securitization process. In this way, however, they implicitly assume that financial instability alone accounts for general instability, thereby neglecting the fact that 'the global crisis clearly has both financial- and real-sector roots' (Crotty, 2009, p. 564).

On the other hand, another group of theorists regard capitalism as being internally unstable in a fundamental sense and have a broader perspective of the deep causes of the GR. Based on Keynes and Minsky's financial instability hypothesis, they consider a more complex link between finance and 'real' trends, namely globalization and technological change (Perez, 2012; Roubini and Mihm, 2010; Dow 2011, Wray, 2010, Davidson, 2009, Skidelsky, 2009). In particular, many authors do recognize that the GR is rooted in growing inequality trends, which undermine aggregate demand in the recent credit-led regime (see e.g. Boyer 2012, Palley 2012, Basu and Vasudevan, 2013, and many essays in Brancaccio and Fontana, 2011).

This paper holds that, while correctly stressing the aggregate demand problem underlying the GR, these theorists fail nonetheless to devise an alternative, unified method to address the complex roots of the problem, which involves institutional, social and cultural aspects, besides strictly economic ones. It can be argued that this failure – which may be one of the reasons why today, unlike the 1930s, the current crisis of the dominant paradigm has so far produced no clear-cut alternative either in theory or policy – is due to various problems that undermine the generality and consistency of the existing heterodox frameworks, such as the insufficient linkage between real and financial factors on the one hand and institutions and culture on the other, the adoption of a relatively narrow or deterministic notion of structure and the emphasis on an unclear, or insufficiently developed, eclectic theoretical stance, such as the integration of Keynes, Minsky and Schumpeter (e.g. Boyer, 2012, Roubini and Mihm, 2010) or Keynes and neo-Ricardians (e.g. Skidelski, 2010).

This paper aims to fill this gap by proposing a new framework called Balanced Stability Approach (BSA). Unlike standard macro, which takes stability for granted, it considers capitalism neither as a priori stable nor unstable, but rather as a source of both positive and problematic effects to be analyzed with reference to actual historical contexts on the grounds of a broad interdisciplinary perspective.

It is possible to identify six main features of this approach. First, the BSA extends the application of Keynes's principle of effective demand to long-term issues by embracing a broader notion of structure than other heterodox approaches, one which considers both 'objective' and 'subjective' dimensions of structural change, including, for example, changes in the fragility of agents' conventions and 'collective trust'.

Secondly, it holds that the demand driver implies an approach to ‘understanding’ the GR, which is not based on formal but on narrative methods.

Thirdly, in contrast with standard theory stressing ‘natural’ or universal laws of economics derived from the deductivist method of the rational agent, the BSA supports a ‘relativistic’ stance according to which a ‘systemic’ vision is needed to address stability issues and the laws of economics change according to the context. More specifically, the BSA places special emphasis on the recent stage of capitalism – which started in the 1980s with the acceleration of key phenomena such as financialisation, globalisation, the introduction of information technology, the diffusion of deregulation moves, as well as postmodern cultural factors – labelling it 'New Economy' (NE), as opposed to the 'credit-led regime' or 'technological paradigm' of most heterodox literature, to emphasise that what characterizes capitalism today is not just a major role finance or a new technology but that all the above factors are more strictly interconnected than ever before. One major implication of this broader perspective is that, while standard theorists celebrated the NE as a golden age of capitalism, the era of the Great Moderation, if not the end of business cycle *tout court*, for the BSA it is instead a major source of problematic factors which impair some standard macroeconomic 'laws'.

Fourthly, in contrast with the standard mechanistic distinction between internal propagation mechanisms and exogenous shocks, the BSA focuses on the internal trends of the NE and suggests that they impair the ‘law’ of price adjustment mechanism at the macro level.

Fifthly, overcoming the isolation procedures of mechanistic approaches, the BSA provides a 'cumulative' account of the impact of multiple, interrelated causal factors on the economy by stressing that objective trends do not exercise a direct, mechanical impact upon the economy – as implied by standard deterministic approaches – but influence it only by changing agents' conventions, which underlie the key propensities of aggregate demand.

Sixthly and lastly, based on this broader notion of structure, the BSA conceives of the key role of institutions in more general terms than alternative approaches; namely, as providers of trust-restoring moves, rather than of just 'rules of the game'. This perspective also leads one to reaffirm in a new way the view that policy is intrinsically discretionary.

Based on these features and with respect to the Mynskian or Regulation School's interpretations, for example, the BSA's specific contribution is to stress that what accounts for the aggregate demand problem is not just finance or inequality in income distribution but also a wider range of structural changes of both objective and subjective kind, which arise in the NE.

To address these issues, this paper is organized as follows. Section 2 presents the key features of the BSA by stressing its departures from both standard theory and current heterodox approaches to the GR. Section 3 provides instead an illustrative account showing how the BSA could help to explain the persistence of the GR.

2. The BSA

In this section, I provide an outline of the features of the BSA designed to map the relevant problematic effects of the NE often neglected in the literature. I show that they fall into two categories: those deriving from standard theory itself, in view of its influence upon policymakers and agents' expectations, and those that can be uncovered only by dropping the standard methodological features, in view of the fact that mainstream macro theory only allows a limited understanding of crises, such as the GR.ⁱⁱ

A. *What vision of the economic process?*

The first feature is standard macro's reliance on a vision of the 'normal' working of the economy based on aggregate supply as the key driver. Lucas suggests, for example, that standard theory accounts for normal times as reflected in secular averages, such as the following: '140 years of 3% production growth and 2% per capita real income growth in the U.S.' (Lucas, 2011 A, p. 15).

This is one of the implications of the internal stability assumption – i.e. of the 'invisible hand' story of self-adjusting properties of a free market economy – known as Say's Law, according to which aggregate production, obtained by using all the resources that are available in a certain economy, always finds a profitable outlet in markets thanks to the smooth working of the price mechanism and the rational behaviour of individuals who respond to price incentives in a stable and predictable manner. In other words, if prices are flexible and set to the 'right' or equilibrium level, there can be no limitations on the aggregate demand side, the true limit of growth being the amount of resources itself.

It must be noted that in standard macroeconomics – which is, like its Keynesian counterpart, all about drastic simplification – this view does not simply lead to a set of interdependent markets all placed on the same footing in a general equilibrium system, but also translates into an implicit sequence or causal ordering based on the 'dominance' of the labour market, which provides the equilibrium level of employment that feeds into the aggregate production function to obtain, with a given capital stock, the amount of production. The latter then provides the level of consumption and saving that generates, through the capital market, investment and capital accumulation.

This picture undermines stability because it implies that the only structural data we need to understand the normal working of the economy are the so-called 'deep parameters' of general equilibrium models; i.e. (stable) individual preferences and resources, such as technology and the amount of labour and capital.

Strictly speaking, standard theorists or policymakers are aware that some crucial structural features of real world economies are missing from this picture. Greenspan, for example, recognizes that the GR has shown us once again 'the *innate human* responses that result in swings between euphoria and fear

that repeat themselves generation after generation with little evidence of a learning curve' (Greenspan, 2008, p. 9; my italics). In his view, such swings represent 'the large missing "explanatory variable" in both risk-management and macroeconometric models' (ibid.). He even lucidly admits the failure of current remedies:

Current practice is to introduce notions of "animal spirits", as John Maynard Keynes put it, through "add factors". That is, we arbitrarily change the outcome of our model's equations. Add-factoring, however, is an implicit recognition that models, as we currently employ them, *are structurally deficient*; it does not sufficiently address the problem of the missing variable.

(ibid., my italics)

After making these remarks, however, Greenspan fails to propose an alternative remedial strategy. He simply treats animal spirits as a natural element that markets themselves are ultimately capable of curing thanks to their intrinsic stabilizing and reassuring role: '... any reforms in ... the structure of markets and regulation [should] not inhibit our most reliable and effective safeguards against cumulative economic failure: market flexibility and open competition' (ibid., my italics).ⁱⁱⁱ

The BSA can be regarded as providing a constructive solution to Greenspan's 'missing variable' problem. It does so by placing the emphasis on a different picture of the normal behaviour of the economy, regarding it, like Keynes, as an open evolutionary system characterized by irreversible time and thus highlighting the potential sources of instability generating events, such as the GR.^{iv}

Basing itself on this, the BSA considers aggregate demand as long-term driver of the economy; i.e. it regards the sequence of markets based on the 'dominance' of the goods market over the labour market, which is summarized in chapter 18 of the *General Theory*, as being valid for discussing not only short-term issues – as many critics as well as supporters of Keynes suggest – but also long-term ones.

This view can be justified by singling out one element within Keynes's theory that is both structural (i.e. permanent or long-lasting) and endogenous (i.e. capable of changing for internal reasons).

According to the BSA, this element does not lie in some of the 'objective' features neglected by Keynes, such as technological change or financial fragility, underlined, for example, by the neo-Schumpeterian and Mynskian approaches. While stressing their significance, the BSA does not place one-sided emphasis upon them. Its true distinguishing mark with respect to these approaches is its embracing of a broader notion of 'structure', one which also includes 'subjective' features, such as expectations, emotions, animal spirits and conventions, that represent the systematic features of agents' behaviour under uncertainty. The BSA thus holds that a meaningful dynamic analysis can only be developed by regarding the objective factors as not exercising a direct, mechanical impact upon the economy – as implied by standard deterministic approaches – but influencing it only by changing the subjective dimensions.^v

It is by focusing on Keynes's analysis of these subjective dimensions that the key structural element of the BSA can be found. In particular, emphasis should be placed on conventions, rather than 'animal spirits'. Although the two concepts partially overlap within Keynes's broader notion of rationality -- in view of the fact that that 'animal spirits' are not entirely 'innate' or spontaneous as held by standard authors such as Greenspan but also represent structural factors that can be 'endogenized' (see e.g. Dow and Dow, 2011, Dow 2013)^{vi} -- reference to conventions is more appropriate for the purpose of stability analysis for at least three reasons.

First, Keynes clearly recognized the conventional nature of his key data; he stressed, for example, that 'the rate of interest is a highly conventional, rather than a highly psychological, phenomenon' (Keynes, 1936, p.203). Secondly, conventions represent the rational (in the broad sense), 'social' or widely shared, decisional criteria -- ranging from simple rules of thumb to 'popular theories' or models of business-- which allow the normal 'stable' working of economy. As Keynes noted, for example, '...the conventional method of calculation will be compatible with a considerable measure of continuity and stability in our affairs, *so long as we can rely on the maintenance of the convention*' (ibid., p.152; italics in the text). Thirdly, he made clear the intrinsic fragility of conventions (for example, they fail to provide 'absolutely right' foundations for knowledge capable of erasing doubt from agents' minds), which makes them subject to sudden change: 'it is no surprising that a convention, in absolute view of things so arbitrary, should have its weak points. It is its precariousness which creates no small part of our contemporary problem of securing sufficient investment...A conventional valuation ...is liable to change violently...' (ibid., p.153-4).

Now, according to the BSA, the fragility of conventions is the structural element which allows one to construct a proper stability account. It implies, for example, that macro stability crucially depends upon the existence of a sufficient level of 'collective trust' in the solidity of the conventional background, a point which Keynes himself hinted at when noting, for example, that 'economic prosperity is excessively dependent on a political and social atmosphere which is congenial to the average business man' (ibid., p.162).^{vii}

This emphasis on 'collective trust' marks a sharp departure from standard theory. While the latter does not even mention the issue since it implies, as does Greenspan's view, that the 'right' level of trust is automatically generated by the working of an intrinsically stable market economy (for example, 'by informal mechanisms, through internalization or moral commitment' (Zucker, 1985, p. 20), the BSA holds instead that collective trust warrants explicit treatment and plays a causal role in the analysis because it is not a natural datum or something that markets can produce spontaneously; on the contrary, trust appears as a necessary 'premise' for markets, in the sense that without it they simply cannot work. ^{viii}

This is the structural feature of capitalism that justifies the role of the aggregate demand driver in long-term dynamic analysis. In particular, the BSA holds what can be labelled as the 'fragility of conventions

hypothesis' of the internal instability of capitalism: namely, market developments tend to disrupt 'collective trust' and the conventional background which depend upon it, almost continuously. This disruption then tends to cause a lack of aggregate demand, which economic policy tries to counter by appropriate 'trust-restoring' moves.

B. How can an 'understanding' of the GR be developed?

Another key feature of standard macro is the use of formal models derived on the grounds of an axiomatic or deductivist approach with a view to pursuing prediction as the primary aim of economic theory.^{ix}

Although the use of formal models is not new, a peculiarity of current mainstream approaches is to regard them as 'reality-creating' devices, as part of a scientific strategy to deal with complexity. One instance is Efficient Markets Theory (EMT), which 'produced' new financial instruments so complex that 'instead of market prices, financial firms resorted to mathematical models to value them' (Roubini and Mihm, 2010, p. 67).

However, the harsh reality of the GR casts serious doubts among practitioners about the actual achievements of such models: 'Many of us like to think of financial economics as a science, but complex events like the financial crisis suggest this conceit may be more wishful thinking than reality' (Lo, 2012, p. 173).

These doubts come in various forms. One is a defensive stance about prediction. Indeed many standard macroeconomists now argue that the GR was an unpredictable 'black swan' and that 'we will never be able to anticipate all discontinuities in financial markets ... we cannot hope to anticipate the specifics of future crises with any degree of confidence' (Greenspan, 2008, p. 9; also Lucas, 2009).^x

Another is the view that formal models do not allow full understanding of the GR. While a few authors talk of the 'structural deficiencies' of models in general terms – by recognizing their lack of realism^{xi} or their failure to capture a growing 'residue of things', including animal spirits – some other macroeconomists are more specific about the real achievements of their models. They note, for example, that while describing the immediate effects of shocks, such as financial frictions, on output and employment (see e.g. Hall 2010, Woodford 2010), standard models and regression techniques fail to explain the persistence of the GR;^{xii} it can be argued that they identify only the 'proximate' rather than the 'deep' causes of the GR; i.e. they manage to show at best that a financial crisis causes recession, not why this crisis occurred. It is no surprise then that in order to explain the persistence of

the GR many orthodox theorists, along with more heterodox ones, try hard to capture the 'deep' causes of the financial crisis and the GR on the grounds of rich narrative accounts.

As emphasized by Lo in his survey, the list of causes changes considerably from author to author; moreover, it can be added, what some authors regard as 'deep' causes turn out to be only 'proximate' causes for others.^{xiii} In Rajan's view, for example, factors such as greed, skewed incentives in the financial sector, CDS, banks holding part of the credit securities 'are just the tip of the iceberg. The true sources of the crisis ... are not only more widespread but also more hidden' (Rajan, 2010, p.4). He goes on to use the metaphor of 'fault lines'.^{xiv}

It would be simply erroneous however to believe that formal models have only become obsolete in the standard approach. On the other hand, while recognizing the deficiencies of formal models, Greenspan argues that they are the only tools that we will ever have to understand the world, and that they are limited only by the amount and nature of our data and our ability to deal with complexity: 'The essential problem is that our models – both risk models and econometric models, as complex as they have become – are still too simple to capture the full array of governing variables that drive global economic reality. A model of necessity is an abstraction from the full detail of the real world' (Greenspan, 2008, p. 9, for a critique Shiller, 2008, p.41).

On the other hand, while seemingly avoiding the strictures of formal models, the narrative accounts written by orthodox authors such as Rajan still rely on the general equilibrium model as a benchmark for analyzing the real-world economy. In particular, such contributions still assume internal stability. Rajan, for example, suggests that 'the basic ideas of the free-enterprise system are sound, the fault lines that precipitated the crisis ... stem from more than just specific personalities or institutions ... responsibility for some of the more serious fault lines lies not in economics but in politics' (ibid., pp. 4-5).

The key role played by formal models in the analysis undermines stability for at least two reasons. First, it generates an intolerable gap between constructed and 'out-there' reality: it makes people mistake the reality models create for the true one (see e.g. Caballero, 2010, p. 85) with the result of fostering unjustified expectations about their powers and neglecting their limitations. In particular, 'an almost religious faith in [EMT] models helped create the conditions for the crisis in the first place, blinding traders and market players to the very real risks that had been accumulating for years' (Roubini and Mihm, 2010, pp. 59-60).^{xv} Secondly, it generates narrative accounts that lead to a one-sided understanding of the GR in view of their continual reliance on the stability assumption.

While sharing the view that 'understanding' can be achieved by providing a plausible narrative account or story about the deep causes of the GR, the BSA suggests that the best way to do so is not to follow an eclectic strategy such as that proposed by Lo (2012), based on a mere juxtaposition of several

inconsistent narratives. A more nuanced and internally consistent understanding of the GR is unlikely to emerge in this way for the simple reason that most of such narratives still rely on the general equilibrium benchmark with its internal stability assumption. This is true not just of standard narrative accounts, but also of more heterodox contributions. One may note, for example, that while denouncing the excessive role of formal models and stressing the role of 'animal spirits', Akerlof and Shiller's behaviouralist approach focuses on the deviations of actual values of assets from 'fundamentals' derived from standard models. Similarly, Stiglitz's research programme can be interpreted as breaking the 'collective trust' issue into different parts and transforming it essentially into structural phenomena on the capital markets (e.g. the moral hazard or asymmetric information issues) to be analyzed in terms of departures from the standard paradigm. One problem with this approach is that it opens up a gap or inconsistency between his formal models stressing bad incentives on financial markets as the deep cause of the GR^{xvi} and many insights contained in his narrative accounts which emphasize instead a persistent aggregate demand problem, such as the following:

The aggregate demand deficiency preceded the financial crisis and was due to structural changes in income distribution. Since 1980, in most advanced countries ... inequalities have surged in favour of high incomes. ... This trend has many causes, including asymmetric globalization (with greater liberalization of capital than of labour markets), deficiencies in corporate governance and a breakdown of the egalitarian social conventions that had emerged after WWII'.

(Fitoussi and Stiglitz, 2009, pp. 3-4).

According to the BSA, this gap can be closed not by devising ever new formal models based on the same departure strategy but by building narratives centred around aggregate demand as the long-term driver. Following its vision of the economy as an open process characterized by irreversible time and complex dynamics, the BSA holds that the principle of effective demand involves a different process of abstraction or framing from the standard one (see Dow, 2012).

In particular, due to the conventional nature of Keynesian key propensities, the dynamic process driven by this principle cannot be properly understood by relying on the general equilibrium benchmark or any other formalistic approach seeking to establish a 'unique link' between some key parameters or variables and evolution. First of all, while being stable enough to warrant scientific analysis, conventions are intrinsically fickle in the sense that they do not give the economy a priori stability. A macroeconomic stability account thus calls for direct reference to a real world system in a certain period of time, rather than to an abstract deductivist framework. In particular, what matters for stability is that particular conventions constrain aggregate demand in a given historical context. Secondly, while formal model building rests on a dichotomy between exogenous and endogenous factors, conventions cover both roles. They are causal factors in so far as they influence the key

propensities underlying the demand sequence. However, they are also partly endogenous in that they can be moulded by objective factors.

Ultimately, even abstracting from effective demand and conventions, it is the very stability-type approach advocated by the BSA – involving the consideration of opposite effects – that calls for empirical analysis. ^{xvii}

C. *What macroeconomic regularities?*

Another objectionable feature of standard methodology is the focus on stochastic regularities, which consists of mild fluctuations defined as comovements; i.e. stable patterns among data series.

The emphasis on long-run equilibrium underlying the supply-driven sequence in standard macro does not mean that it neglects negative events such as recessions. Indeed, thanks to the notion of stochastic equilibrium, standard macro manages to show that ordinary fluctuations, like risky phenomena in general, are part of the normal set-up of the economy, rather than just pathological phenomena. For this reason, they can still be rationalized in terms of the deep parameters of general equilibrium reflecting rational behaviour in conditions of perfect competition, hence absence of structural change.

Stochastic regularities can be regarded as the ‘natural’ laws of dynamics: Lucas asked, for example, why it is that, 'in capitalist economies, aggregate variables undergo repeated fluctuations about trend, *all of essentially the same character?*' (Lucas, 1977, p. 1; my italics).

It is important to specify the meaning of the ‘natural laws’ label, especially in the light of standard macro’s attempt to forge 'reality-creating' devices. By using this label I do not mean that such regularities arise spontaneously. Rather, they are artificially isolated within the general dynamics of the system, in line with the internal stability view which presupposes a closed and mechanical world that can be segmented without loss of significance. In other words, standard theorists single out within available evidence what counts as ‘reality’ or ‘actual economy’. By ‘natural laws’, I mean instead that in the neoclassical model stochastic regularities have two features: a) they must be explained in terms of self-contained deductivist theoretical frameworks based on individual rationality^{xviii} and b) represent ‘objective’ dynamics, namely the behaviour of an actual economy independent of policy.

Lucas however recognizes that the GR defies this interpretation. It appears rather as a singular event or an 'occasional displacement' from a trend of stable growth – 'the GR is deeper not typical' (Lucas, 2011A, p. 15) – an event which standard theory is simply unable to cope with, a new entry in Lucas's growing list of exceptions to the DSGE models. ^{xix}

This dichotomy between natural laws and exceptions is another factor that undermines stability inasmuch as it ties the validity of economic theory to artificially constructed 'normal' cases, leaving economists in disarray when faced with a growing number of exceptions.

It is true however that some narrative accounts by orthodox economists would appear not to fit into this mould.

First of all, criticizing the recurrence of the 'this time is different' syndrome, Reinhart and Rogoff claim, for example, that, 'our basic message is simple: We have been here before' (2009, p. xxvii) and stress that the 2007 financial crisis is neither unprecedented nor extraordinary when compared to historical records. They seem to suggest the existence of some kind of natural laws applying to crises.^{xx} These are clearly underlined by Greenspan, who speaks of, 'the *innate human responses* that result in swings between euphoria and fear that *repeat themselves generation after generation* with little evidence of a learning curve'. Asset-price bubbles build and burst today,' he continues, 'as they have since the early 18th century, when modern competitive markets evolved. To be sure, we tend to label such behavioural responses as non-rational. But forecasters' concerns should be not whether human response is rational or irrational, only that it is observable and systematic' (Greenspan, 2008, p. 9; my italics).

Secondly, Rajan (2010) even seems to call into question the very existence of natural laws as defined above. For example, he holds a systemic view according to which 'there are deep fault lines in the global economy, fault lines that have developed because in an integrated economy and in an integrated world, *what is best for the individual actor or institutions is not always best for the system*'. (Rajan, 2010, pp. 4-5, my italics).

He also criticizes the Reinhart and Rogoff thesis by emphasizing the peculiarity of the GR: 'We should also resist the view that this is just another crisis, similar to every financial crisis before it ... Although there are broad similarities in the things that go wrong in every financial crisis, this one centered on what many would agree is the most sophisticated financial system in the world' (Rajan, 2010, p. 4).

While sharing Rajan's emphasis on the need to adopt a systemic approach and recognize the peculiarity of the GR, I suggest however that to elaborate these views consistently, it is necessary to reject the stability assumption he relies upon. By making this step, the BSA is immediately led to reject the clear-cut distinction between normal and crisis times underlying the standard approach. In particular, like Minsky, it stresses two points. The first is that the behaviour of the economy in apparently normal times always generates the potential for crises, such as the GR (see e.g. Minsky, 2008, p.11) – indeed this potential should be seen 'as the norm rather than an aberration' (Dow, 2011, p.

236). The second is that the economy's normal behaviour is, to a significant extent, the result of the policy response in times of crisis (see e.g. Minsky, 2008, p.7).

On these grounds, the BSA is then led to call into question natural laws, embracing a stance that may be labelled as 'relativistic'.^{xxi}

One key feature of such a stance is to underline that the GDP is not really an 'objective' indicator of stability, both in the sense that it depends upon policy to a growing extent (it is only thanks to unconventional policy measures, for example, that a new Great Depression has been avoided) and in the sense that, as testified by the many recent attempts to go 'beyond GDP' (see e.g. Stiglitz, Sen and Fitoussi, 2010), it is much less significant today than it was in the past due to the growing role of structural change that makes aggregates ever more non-homogenous over time.

For this reason, not only does the BSA shift the focus away from 'regularities', such as comovements, but also rejects the more general view that 'history repeats itself in some simplistic, cyclical way' (Roubini and Mihm, 2010, p. 59). Indeed, following its vision of economic process occurring in irreversible time, the BSA regards the economy as an organic whole – made up of a number of interconnected elements – and suggests that the analysis cannot be restricted to equilibrium states, steady paths or recurring phenomena in general, such as cycles of various length and financial crises, isolated within the whole capitalist evolution (for a discussion of such issues, see e.g. Freeman and Louça, 2001).

The definition of the 'laws of motion' of real-world economies is not impossible, however. According to the BSA, the lack of objectivity of dynamic analysis implies that while one can say little about evolution of capitalism in general – beyond certain broad claims, such as those about the normality of crises – more specific laws of motion can be singled out with reference to different stages of capitalist evolution.

In this regard, the BSA is similar to the Regulation school (e.g. Boyer 2012), the neo-Schumpeterian (e.g. Perez, 2009) or the neo-Mynskian approaches (e.g. Wray, 2010, Dow, 2011), which break the whole capitalist evolution into various stages – labelled, for example, as 'growth regimes' or 'techno-economic paradigms' in relation to key causal factors, such as technological breakthroughs or changes in institutional regimes or waves of financial innovations – and focus on the last stage as the relevant one to understanding of the GR.^{xxii}

Basing himself on the notion of 'growth regimes', Robert Boyer (2012) holds, for example, that the deep causes of the GR must be understood in the light of the recent credit-led regime that has replaced the old Fordist regime.^{xxiii} In a similar vein, Wray discusses the GR in the context of current stage of 'money-manager capitalism'

The peculiarity of the BSA with respect to such approaches is that it suggests a tripartite distinction between Old, Modern and New Economy (NE), based on a variable degree of interconnectedness among a number of key components, such as those mentioned above. The focus on the NE rather than the 'credit-led regime' or other similar concepts is justified by its emphasis on the fact that what is peculiar today is not just a major role finance or a new technology but that all the above factors undergo a drastic acceleration and are more strictly interconnected than ever before.^{xxiv} As pointed out by postmodernist authors such as Bauman (2000), the NE can be labelled as a 'liquid' society, in which all rigid separations – such as those between economic sectors (e.g. financial/real) or between different spheres of society (e.g. cultural/institutional/economic) or between different temporal trends -- break down.^{xxv} This means that, in principle, to capture the complexity of the NE we should pursue a broader interdisciplinary approach than achieved by current heterodox frameworks so far. In particular, to justify a theoretical framework that places the emphasis on 'collective trust', we should regard the NE as a 'risk society', in line with sociologists.^{xxvi}

In comparison with the Modern Economy to which Keynes referred, the NE presents, as Boyer (2012) in particular points out, a number of significant novelties, such as financialisation, an unprecedentedly deepening labour division, a stronger interdependency, an increasing specialization among national economies and a larger diversity of capitalisms (including different modes of regulation and styles of macroeconomic regimes), all of which lead to greater instability: crises have become more frequent or normal in the NE.^{xxvii} Indeed, we live in a stage of 'capitalism that has delivered serial crises instead of delivering the goods on a consistent and stable basis. ... the frequency and virulence of economic and financial crises have increased in both emerging markets and industrial economies' (Roubini and Mihm, 2010, p. 11). There is thus reason to believe that 'this crisis was bigger, swifter and more brutal than anything seen before. It was a nineteenth-century panic moving at twenty-first-century speed' (ibid., p. 88).

One significant implication of this relativistic stance is that in order to gauge stability it is not enough to focus on the macroeconomic variables captured by standard models, such as income, unemployment and inflation. As shown by attempts to go 'beyond the GDP', one should also consider other variables that are influenced by the institutional sphere, such as income and wealth distribution, social capital, knowledge and sense of security, which affect people's 'happiness' or 'collective trust'.

But that is not all. Another significant feature of BSA's relativistic stance is its stressing of the fact that that, due to its major dependency upon policy, the GDP concept does not simply tell a story about 'free markets' or private agents' behaviour as held by Lucas. This means that, for the purpose of a truly 'systemic' stability analysis, we should shift the focus away from individual optimizing behaviour as the ultimate explanatory factor.

It is by placing the emphasis on conventional behaviour underlying aggregate demand that the BSA seeks to accomplish this task. In particular, by focusing on conventions the BSA is led to regard the aggregates underlying Keynesian macro as irreducible entities rather than a simple sum of optimizing

agents behaving according to the canons of standard choice theory, just as Einstein's fields in relativity theory, for example, are not just an aggregate of atoms behaving according to Newtonian theory (for more details, see Togati 1998, 2001).

Indeed, for the BSA, individual agents following conventions no longer appear as in standard theory, namely as autonomous decision-makers capable of making a priori optimal choices under given constraints – i.e. prices and incomes – and reacting in a predictable manner in the face of changes in such parameters because of the assumption of stable preferences.

Due to uncertainty – which makes standard choice theory indeterminate by undermining its basic premises, such as optimization and stability of preferences – individuals appear as being increasingly aware, as Keynes put it, that their 'individual judgement is worthless' (Keynes 1937, p. 114) and thus forever looking for external anchors, such as conventions, which the theory cannot determine in a priori terms.

However, following its emphasis on conventions, the BSA does not simply reaffirm Keynes's concept of the autonomy of macro from standard micro; it also renders it somehow more stringent.

In particular, if it is true that the dynamic analysis of conventional behaviour is no longer a matter of abstract theory, in view of the fact that the relevant conventions can only be defined with reference to real-world institutional contexts, then it follows that to deal with stability analysis, it is not sufficient to state the principle of effective demand as a 'general' law of the economy by considering 'generic' conventions, such as that tomorrow is like today or reliance on other people's judgements, which are considered by Keynes in his *General Theory*. It is also necessary to 'operationalize' this principle in terms of more 'specific' dynamic laws by focusing on the particular conventions that account for the behaviour aggregate demand in a specific context, such as the NE.

In other words, it can be argued that, in order to understand the behaviour of groups of individuals, the relevant constraints are not those that affect individual agents such as income or prices, but systemic constraints, such as the NE, incorporating qualitative or structural change that does not show up in national income figures.

According to the BSA, moreover, macroeconomics also achieves a more complete autonomy of its 'laws' with respect to standard theory than envisaged by Keynes because it incorporates the extra-economic dimensions deriving from the strict interconnectedness of the NE. One may note, for example, that the latter undermines the significance of pure economic variables, such as the real wage. Since a major part of it is construed in terms of welfare, the 'social wage' concept is more appropriate for stability analysis.

C. How do we go beyond abstract shocks?

The standard approach may also be criticised for its emphasis on the distinction between abstract shocks and propagation mechanisms, which reflects its mechanistic stance and intrinsic stability assumption.

While there are many different theories of business cycles, all share some properties. One is that the business cycle is seen as the consequence of some sort of exogenous factors or random shocks 'displacing equilibrium without disrupting it' (Vercelli, 2009, p. 14).

In addition, most theories build on a propagation mechanism that amplifies shocks. In general, all standard economists accept the view that market economies react to changes with price adjustments; for example, a negative productivity shock lowers the marginal product of labour, so that the real wage would have to move downward to adjust labour demand and supply. The problem is to explain why markets sometimes fail to absorb even small shocks smoothly. In other words, 'unless the disturbances are already big enough by themselves to account for the fluctuations, there has to be some propagation mechanism that translates small, short-lived shocks into large, persistent economic fluctuations' (Doepke, Lehnert, Seligren, 1999, p. 69).

Although the emergence of a neo-neoclassical synthesis based on DSGE models in recent years has reduced the analytical distance among standard economists, differences persist over the range of shocks and propagation mechanisms considered. According to New Keynesian contributions, cycles represent a failure of the economic system. They emphasize risk shocks, markup shocks and financial shocks and regard frictions or market imperfections as the relevant propagation mechanisms capable of explaining why the economy experiences depressions and fails to achieve the efficient level of output and employment. Models of this kind rely on financial frictions to account for the immediate effects of the GR on the economy, while sticky prices are necessary to account for its more persistent effects (see e.g. Woodford, 2010).

Neoclassical contributions, such as the Real Business Cycle models or Lucas' models, view cycles instead as the economy's optimal reactions to unavoidable shocks. They emphasize technology retardation, changes in preferences or tightness in monetary policy as the main cause of economic fluctuations and suggest that shocks are propagated through intertemporal substitution within an efficient market mechanism. According to some economists, on these grounds it is possible to rationalize even the GR. Minford (2009), for example, interprets the financial crisis as a rational reaction by markets to a negative shift in the productivity of the construction sector (for a critique see Boyer, 2012, p. 295).

This conception represents another threat within the NE.

First of all, not unlike Jevons's sunspots, it induces economists to blame factors that the theory cannot explain. As Ohanian admits: 'The literature on general equilibrium business cycle models has made considerable progress in understanding how different model economies respond to what we call *abstract shocks*: shocks that do not have a precise definition or acknowledged source ... There has been less progress on developing and testing theories about the nature and sources of ... abstract shocks' (2010, p. 47).

Secondly, it makes people mistake false stability factors (full price flexibility) for true ones (price rigidities).

Narrative accounts by some orthodox authors now call these views into question. In contrast with formal models that are forced in particular to neglect structural change by their use of the representative agent device, Rajan, for example, recognises the existence of structural fault lines, such as growing inequality in income and wealth distribution or the fact that globalisation in the NE somehow changes an important 'law' of standard economics which seemed to hold in the past, that of inflation tending to rise following an increase in demand:

There are usually limits to debt-fueled consumption, especially in a large country like the United States. The strong demand for consumer goods and services tends to push up prices and inflation. A worried central bank then raises interest rates, curbing both households' ability to borrow and their desire to consume. Through the late 1990s and the 2000s, though, a significant portion of the increase in U.S: household demand was met from abroad ...

(Rajan, 2010, p. 9)

However, given Rajan's reliance on standard formal models as a benchmark, the logic of his argument is that in the end, 'responsibility for some of the more serious fault lines lies not in economics but in politics' (Rajan, 2010, p. 5). This means that he regards the NE trends not as 'objective' but as the product of bad politics. Income inequality and job insecurity, for example, are ultimately due not to technological progress per se, but to political failure to accommodate it by effectively reforming the education system, which has failed to provide the highly qualified labour force needed in particular by the new information technologies (see Rajan, 2010, pp. 8-9).

Likewise, US consumers' high propensity to debt is not a product of financial innovation per se, but is due to distortions brought about by politics (such as governments' influence on credit and the housing market, low interest rate policy and China, Germany and Japan's political choice to rely upon the export-led model of growth).

Similar problems also arise in more heterodox approaches that criticize standard macro, but still rely on the shock/propagation mechanism distinction.

While certainly breaking with standard theory by recognizing the key role of cultural norms, collective beliefs and confidence, Shiller, for example, regards them as non-structural factors -- in line with his definition of 'animal spirits'^{--xxviii} which generate 'shocks' hitting the stable structure of the economy (defined in the traditional sense as including individual tastes reflecting standard rationality axioms) and thus determining deviations from the fundamental or benchmark asset values.

In particular, he regards the NE itself as a 'story' or a false rationalization of a 'new era', as one instance of 'animal spirits' leading to unjustified or irrational asset prices, rather than as a number of interrelated objective and subjective structural trends generating internal threats. Basing himself on this, Shiller thus identifies collective false beliefs as the deep cause of the GR: 'the ultimate cause of the global financial crisis is the psychology of the real estate bubble' (Shiller, 2008, p. 4). In particular, he regards an epidemic of irrational public enthusiasm for housing investment or 'social contagion of boom thinking as the most important single element to be reckoned with in this speculative boom' (ibid., p.41)

According to the BSA, instead, an alternative theory of stability calls for the rejection of the shock/propagation mechanism distinction.

It holds, in particular, that standard models invert cause and consequence (for a similar view, see Boyer, 2012, p. 295). The factors that such models treat as exogenous shocks (e.g. shifts in productivity or in animal spirits) turn out instead to be endogenous phenomena that need to be accounted for. For example, changes in productivity appear as the consequence of a change in aggregate demand. Similarly, changes in animal spirits appear, at least to some extent, as changes in collective trust brought about by a number of interrelated trends of the NE.

Moreover, in view of the interconnectedness of the NE, the BSA also reverses standard conclusions about price adjustments and ends up by restoring Keynes's conclusion about price rigidity as a stabilizing factor.

First, while standard macro emphasizes universal laws of price behaviour, such as inflation or deflation, that adjust the economy through invariable mechanisms, such as the real-balance effect, in line with price adjustments on individual markets, BSA holds instead that price behaviour tends to change in a complex manner according to context (i.e. price changes are both causes and effects of a

number of phenomena). For example, the basic trends of the NE, such as globalisation and technological change, tend to generate low inflation at a global level. In turn, a low-inflation regime enabled a long period of low interest rates, which triggered the diffusion of very large leverage ratios (see e.g. Boyer, 2012, p. 284).

Secondly, the BSA suggests that price flexibility, rather than price rigidity, in the NE may be even more destabilizing than in Keynes's times. One may note, for example, that greater financial instability is also caused by a pricing process on financial markets that has become more flexible and 'perfect' than in the past (e.g. Orlean, 2011). Moreover, as clearly shown especially by the firm intention of Central Banks to counter deflation as much as inflation at all costs, flexible goods prices are likely to generate more instability than ever before in so far as they undermine conventions and the state of collective trust; i.e. the 'premises for markets', which have become a more important part of the economy, a complex function of a number of variables, including income and wealth distribution.

D. How can we account for multiple causes?

Another questionable feature of the standard approach which follows from its mechanistic, closed-system view is that it is legitimate to use the ceteris paribus method; i.e. to focus on isolated subsets of the complex socio-economic system, even to draw macroeconomic conclusions.^{xxix} More specifically, this method underlies standard models of the business cycle that typically achieve 'results' by taking several factors as given and often draw the conclusion that only one main factor is responsible for a downturn (e.g. a real or a monetary shock).

This conception highlights a further threat in the NE in so far as it makes most economists feel overconfident about the value of conclusions and forecasts obtained by neglecting the systemic features of macroeconomics, such as the interconnectedness of the parts.

The sterility of the ceteris paribus method in the analysis of the GR is candidly admitted by Lucas himself, who notes, for example, that prior to the Lehman bankruptcy, standard forecasts were still 'a reasonable estimate of what would have followed if the housing market had continued to be ... the main factor involved in the economic downturn' (Lucas, 2009, p. 63). Rajan goes even further, recognising that the standard belief that securitization should have made banks safer amounts to committing, 'the economist's cardinal sin of assuming ceteris paribus, that is, assuming that everything else but the phenomenon being studied, in this case securitization, remained the same. Typically, everything does not remain the same' (2010, p. 2).

Strictly speaking, Rajan's narrative account seeks to go well beyond this method.

Rajan stresses that he has 'no single explanation for this crisis, and so no single silver bullet to prevent a future one. Any single explanation would be too simplistic' (ibid., p.7). Indeed, his metaphor of fault lines is an attempt to provide a kind of cumulative account of critical factors underlying the GR.

Moreover, Rajan focuses on the 'things that do not remain the same'; he recognises, for example, that the above trends bring about endogenous changes in risk perceptions: 'Most important, deregulation and developments like securitization had increased competition, which increased the incentives for bankers ... to take on more complex forms of risk' (ibid., p. 2).

However, it can be argued that Rajan cannot go beyond a certain point in this analysis of endogenous instability. One limitation is that, like all orthodox theorists, he has no method to deal with both positive and problematic effects of many internal factors *taken together*, as one ought to do to analyse complex crises, such as the GR. Rajan emphasises multiple fault lines, each still based on the *ceteris paribus* approach, which lead him to draw the same conclusion, namely to underline the political roots of the GR; e.g. US government intervention on the credit market and developing countries' patterns of growth and their crony capitalism.

Moreover, in view of his reliance upon the assumption of stable agents' preferences, Rajan cannot really provide an endogenous account of their behaviour by seeking to answer questions such as 'Why do people feel more insecure in the NE?' or 'Why do people want to consume more?', which he partly raises in his account.^{xxx}

This is also true of more heterodox approaches that still rely on the general equilibrium benchmark. In general, they focus on limited deviations from the global stability assumption or partial 'disequilibrium' stories locating instability in just one key factor or market. In this category fall either formal models dealing with structural financial factors, such as bad incentives due to asymmetric information and moral hazard or narrative accounts stressing key psychological and conventional determinants of agents' behaviour on financial markets (e.g. Shiller, 2008; Akerlof and Shiller 2009).

However, this is also true of other heterodox approaches – such as the neo-Schumpeterians and the Mynskian – that break more sharply with the standard paradigm. While not committing the cardinal sins of assuming internal stability, they fall short of providing a full-blown alternative stability analysis in so far as they often tend to emphasise just one causal objective factor, such as technology or financial fragility, or just one key demand driver, such as investment. As Minsky points out, for example:

Implicit [in Keynes] is a view that the capitalist economy is fundamentally flawed. This flaw exists because the financial system necessary for capitalist vitality and vigour – which translates entrepreneurial animal spirits into effective demand for investment – contains the potential for

runaway expansion, powered by an investment boom. This runaway expansion can readily grind to a halt because accumulated financial changes render the financial system fragile.

(Minsky, 1975, pp. 11-12).

However, even those authors who broaden the range of causal factors, such as Boyer, tend to place the emphasis only on objective factors and fail to indicate a systematic method for carrying out long-term dynamic analysis based on a clear-cut theoretical driver.

The BSA seeks to fill this gap by suggesting a method to deal with several cumulative causes of the GR – that is, when 'things that do not remain the same' – thus remedying the cardinal sin of the *ceteris paribus* method.

As noted above, this method relies on two assumptions. First, the BSA embraces a broader notion of structure than alternative approaches considering both the tight interrelations between the key objective trends of the NE from the start and the subjective collective features of the economy which underlie the key propensities of aggregate demand, the long-term driver of the economy.

Secondly, it analyses structural change by assuming that objective trends do not exercise a direct, mechanical impact upon the economy – as implied by standard deterministic approaches – but only by influencing a number of agents' socio-psychological perceptions which shape all the key Keynesian propensities, not just one key variable. ^{xxxix}

Here is a list of the most significant changes in perceptions that are likely to account for greater internal instability in the NE (for more details, see Togati, 2006, 2007):

- a) perception of 'space': the stronger interaction between globalisation, financialisation and technological change has led to a drastic reduction in distances and various other barriers such as transaction costs, with the result that agents get used to **live in a 'flat world'**;
- b) perception of 'time': as a result of technological change's bringing about greater differentiation of consumer goods and larger and faster information flows, the NE induces a shortening of agents' horizons;
- c) perception of 'value': due to the growing role of intangibles in the NE, it is more difficult to price goods and services produced. Intangibles call for different criteria for measurement and valuation in firms' accounting from those required by ordinary physical goods. Moreover, the key interrelated phenomena of globalisation, financialisation and technological change tend to favour the acceptance of widening income gaps and changing standard norms of fairness (such as the huge increase in the

difference between top managers and average employees); new financial instruments are difficult to value and this leads agents to underestimate real and potential losses in their balance sheets (Boyer, 2012, p. 289)

d) perception of the 'market': due to the increasing mutual influence between the economic and socio-institutional spheres, agents have different perceptions of the boundaries between private, market-based activities and public intervention and interest. In particular, after the unprecedented scale of bail-outs in the financial sector, it is not clear to what extent capitalism is still based on private enterprise (the risk of bankruptcy included);

e) the state of 'collective trust': it can be argued that the NE implies a more fragile state of collective trust (what many describe as a 'broader sense of insecurity') than in the past because its key trends bring about phenomena, such as the disruption of 'social capital' (for example, due to increasing working time and productivity and the diffusion of lower ethical standards and fraud) and a reduction of the autonomy of individual decisions due to the growing complexity of information.^{xxxii}

E - Institutions as reassuring devices

The interpretation of the role of institutions is another feature of standard macro deserving of criticism.

Today most mainstream scholars subscribing to the basic canons of neoclassical economics seem to agree that internal market forces do not suffice to grant stability. The market system can only work if there are adequate institutional premises. Indeed, as North points out, institutions 'are the underlying determinant of the long-run performance of economies' (North 1990, 107).

In particular, they hold that their key role is to establish, 'the economic rules of the game' (e.g. North 2003), or implement what Rodrik regards as the 'first-order economic principles' of neoclassical analysis, such as 'protection of property rights, contract enforcement, market-based competition, appropriate incentives, sound money, debt sustainability' (Rodrik, 2007, p. 15), that will stimulate economic development and enable markets to function well.

While authors like Rodrik maintain a conditional stance, according to which such principles are compatible with many possible institutional arrangements and policy packages, including those that appear as anomalies from the standpoint of standard economics, such as China's, more standard macro approaches, such as the ones underlying the Washington and post-Washington consensus, maintain a more unconditional approach whereby, a priori, only one set of institutional solutions – often resembling those of particular countries such as the US – meet the higher-order principles. Rajan's approach to the GR seems to fit in with the latter view. Not only does he criticise China's or Japan's model of growth, but he also praises, for example, the greater transparency of the US financial system compared with other systems, often seen as instances of 'crony capitalism':

The final set of fault lines develops when different types of financial systems come into contact to finance the trade imbalances: specifically, when the transparent financial systems in countries like the United States ... finance, or are financed by, less transparent systems in much of the rest of the world. Because different financial systems work on different principles and involve different forms of government intervention, they tend to distort each other's functioning whenever they come into close contact.

(Rajan, 2010, p. 7).

Strictly speaking, the unconditional stance towards the GR is not so straightforward. In fact two lines of thinking over the role of institutions emerge in Rajan's narrative account.

On the one hand, Rajan suggests that the GR has been generated to a large extent by institutional or policy violations of the first-order principles. In many countries, institutions have produced bad incentives (for example, bail-outs create risk underestimation) and distorted market competition (e.g. political pressures to grant easy credit or mortgages).

On the other – in line with the Political Economy stance stressing that the economy is driven by structural trends, such as rapid structural change, which institutions should try to accommodate – Rajan holds that the GR has been made worse and unacceptable (e.g. in terms of greater inequality) because institutions have failed to play this accommodating role (by reforming the education system, for example).

This unconditional view further undermines stability in the NE as it amounts to assuming: a) that some countries (e.g. the US) represent the benchmark of a 'right' institutional set-up; b) the gap between more advanced and less advanced or backward countries can be explained in terms of the failure of the latter to converge with the institutions of the former; c) this gap should be closed by adopting adequate 'structural reforms'.

The emphasis on structural reforms and the perennial of politicians to enact them as the ultimate cause of all economic problems leads people to neglect other deep, possibly more relevant causes, such as a lack of effective demand.

According to the BSA, to remedy this kind of instability it is necessary to consider the role of institutions in a broader perspective than allowed by neoclassical analysis. Their task is not simply to implement first-order principles to set the stage for (or accommodate) market forces, albeit in a flexible way as presumed by the conditional view.

While it is true that such principles 'are universal in the sense that it is hard to see what any country would gain by systematically defying them' (Rodrik, 2007, p. 31), when considering their implementation the institutions' only task amounts to assuming internal stability; i.e. believing that,

once such principles are respected, market forces will automatically deploy their beneficial potential for the whole economy.

According to the BSA, there is no guarantee that this is actually the case. One notes, for example, that even countries like the US – which broadly respect these principles and act as a benchmark for others – have not been saved from instability (rather, as Rajan himself recognises, they have been at the heart of the GR). On the contrary, actual policy moves attempting to stabilize the economy have been forced to violate them (e.g. the rise in public debt following bail-outs in the US).

The problem with such principles is that they are too vague to represent a valid guide for policymakers, as Rodrik himself recognizes: 'From the standpoint of policy-makers, the trouble is that these universal principles are not operational as stated ... in effect the answers to the real questions that preoccupy policy-makers ... cannot be directly deduced from these principles'.

(Rodrik, 2007, p. 29)

According to the BSA, in an evolutionary uncertain context the other essential role of institutions is to adapt to changing conditions that can evolve quite unfavourably; i.e. by checking the sources of private sector instability (for a similar view, see e.g. North, 2003).^{xxxiii}

In particular, in view of the key role played by the fragility of conventions in causing a weak aggregate demand, institutions must seek to grant the relative stability of the conventional background of capitalism by influencing its key premise: namely collective trust.^{xxxiv}

While standard theory implies that the 'right' level of trust is automatically generated by the working of an intrinsically stable market economy, the BSA holds instead that 'disruption' of trust occurs continuously due to the major structural change brought about by the NE. Hence to achieve stability, 'production' of trust must be provided especially by formal mechanisms, such as institutional 'anchors', beyond the traditional 'rules of the game'.

Basing itself on this, the BSA makes sense of key policy trends that have accounted for the structural rise of public expenditure over GDP in all advanced countries in the last 80 years (from 3% to over 30% in the US). In particular, many trust-restoring devices have actually been used to tame private sector instability, especially since the Great Depression, and have now become endogenous or structural, built into the system. They include, for example, the pledge of central banks to defend the value of money, the introduction of deposit insurance and key features of the welfare system, such as unemployment benefits or public pensions and health services, incomes policy aimed at promoting national competitiveness through social pacts rather market mechanism and government strategies favouring innovation as a 'public good' (for analysis of these issues, see e.g. Quiggin 2009, ch.4, Dow 2011, 2013).

F. Why discretionary policy?

The last objectionable feature of standard macro, which follows logically from the internal stability view and the belief in natural laws implied by the general equilibrium model, is its emphasis on tight policy rules as a pre-condition for stability:

In the past 50 years, there have been two macroeconomic policy changes in the United States that have really mattered. One of these was the supply-side reduction in marginal tax rates, initiated in 1980 ... The other was the advent of 'inflation targeting' ... to the exclusion of other objectives. As a result of these changes, steady GDP growth, low unemployment rates and low inflation rates – once thought to be an impossible combination – have been a reality in the U. S. for more than 20 years.

(Lucas, 2007)

This is another key aspect of the unconditional view seen above: it is not just about affirming that a certain institutional setting is the benchmark for others, but also about interpreting the road to macro stability in terms of sound money and public finance targets as a one-way street from strict rules on inflation control and balanced budgets – such as the Maastricht fixed parameters or the 90% debt/GDP rule advocated by Reinhart and Rogoff (2010) – to stability and growth.

This view undermines stability for one major reason: namely, because it involves the 'one size fits all' approach, which consists in 'applying fixed rules (austerity policy) whatever the causes of the public deficits and regardless of the structural and institutional configurations of each national economy' (Boyer, 2012, p. 310), aimed at generating crowding-in effects, credibility restoration and the enhancement of competitiveness via the reduction of unit production costs.

This approach is dangerous since it leaves policymakers completely unarmed when facing events such as the GR, which often turn even 'virtuous' countries into seemingly 'profligate' ones by forcing them to adopt discretionary policies only as a pragmatic, last-resort weapon, without a clear theoretical rationale.

As noted, for example, by the former ECB president, 'As a policy-maker during the crisis I found the available models of limited help ..., we felt abandoned by conventional tools ... In the absence of clear guidance from the existing analytical frameworks, [in] exercising judgement we were helped by ... historical analysis ...' (Trichet, 2010).

The BSA's relativistic framework justifies discretionary policy on theoretical, rather than simply pragmatic grounds.

Although the flexible stance taken by policymakers in the GR is obviously better than their blindness during the Great Depression, the BSA suggests that the NE increases the costs of pragmatic policies considerably. One key limitation of pragmatic approaches is their relative failure to learn from the past. In such approaches, reference to 'history' simply amounts to recognizing that discretionary policy moves were taken in previous periods without explaining why. Indeed, the essence of pragmatism is 'doing the right thing without knowing it', with the result that policymakers remain forever trapped within the following sequence: bold definition of some 'in principle right' policies for supposedly 'normal' times, discovery that they do not work in the particular, exceptional case at hand, need to adopt some ad hoc unconventional measures which last only when things start to improve, and then restoration of the standard policy paradigm. While this sequence is per se painful and time-consuming, it becomes almost intolerable in the rapidly changing NE, in view of the greater role that collective trust plays in it. Without a consistent and stable policy paradigm, agents can only grow more anxious about the aims and effectiveness of actual policy moves, with likely negative effects on their spending decisions.

According to the BSA, adequate learning can best be achieved on the grounds of a relativistic approach that leads policymakers to overcome the dichotomy between normal and exceptional times. This should not be confused with the 'conditional' view as stated by Rodrik; i.e. flexibility in the implementation of high order principles.^{xxxv}

As noted above, these principles are correct but are too vague. For example, simply advocating fiscal solvency is not only institutions-free as Rodrik suggests, but also macroeconomic theory-free, in the sense that it says nothing about the causal links which lie at the heart of macroeconomics. To obtain fiscal solvency starting from a relatively high debt/GDP and high deficit/GDP ratios, one can in principle follow two paths: either by promoting growth first (the current stance of the USA) or by cutting expenditure/raising taxes first (the European Commission's current stance). While the unconditional policy stance – which regards debt as limiting growth in all cases – only allows for the latter in line with the one-way street idea, the other approach allows instead for both; i.e. it implies a two-way street in which the choice depends upon the context in that, while accepting that growth can be limited by debt, it also considers the possibility that high debt may be the result of low growth (as is the case, for example, in many countries in Southern Europe).^{xxxvi}

According to the BSA, this second approach, which represents the essence of discretionary policy, fits in with a relativistic stance, in the sense that it can only be justified by rejecting the idea of natural laws and the internal stability assumption, which are instead still accepted by Rodrik. While many 'relativistic' policy suggestions are made in the heterodox literature (e.g. the idea that national debt is not like personal debt, emphasized among others by Krugman, 2012),^{xxxvii} the BSA suggests that they are better justified by emphasizing the role of conventions and the autonomy of collective trust. A few instances will suffice to illustrate this claim.

First of all, by making reference to agents' conventions and collective trust, the BSA manages to accommodate 'history', a necessary step towards justifying discretionary policy. One may note, for example, that conventions defy purely theoretical definitions in so far as they incorporate a changeable element, namely agents' responses to objective trends in a given historical period that make them understandable only ex-post. Thus, from the standpoint of the macroeconomist, conventions can only be taken as they are, as the irreducible starting point not just for theoretical analysis but also for policymaking, which is not about thinking in abstract terms but adapting to circumstances. One may note, for example, that there are no clear 'natural' limits to public expenditure (or public debt) in terms of GDP, and how far a government can go in increasing this ratio is a matter of shared conventions, which vary across time and place. This means that not only that the 'one-size-fits-all' policy is wrong, but also that one cannot implement any policy stance, including tax and spend policies, in a mechanistic fashion.

Secondly, attaching weight to collective trust allows one to see that 'tight' rules are only a special case of a broader category of trust-keeping moves, which may be necessary to adopt as a response to private sector instability. Indeed, what standard theory takes as 'unique' anchors that always work irrespective of contexts, appear as much weaker policy moves in the relativistic approach, where they adapt to circumstances.

Inflation-targeting, for example, is not the end-result of a struggle to establish a truly scientific monetary policy as conventional wisdom would have it, but a common-sense policy in certain contexts (e.g. when hyper-inflation occurs) to be quickly replaced in others, such as the GR, when unemployment or financial instability are more relevant. In other words, in view of the fragility of collective trust one cannot single out on a priori grounds, the best policy to keep it at bay; discretionary policy is simply whatever is needed to reach this aim.

Ultimately, placing the emphasis on collective trust as a function of welfare features, such as safety nets for workers, helps to make sense of different policy stances across countries in the face of unemployment. It can explain, for example, why some countries (e.g. the US) with relatively weak safety nets and role of family appear more intolerant in the face of unemployment and thus tend to react more quickly than other countries (e.g. some European ones) in which these features play a more significant role.

3. An illustrative account of the persistence of the GR

In this section, I argue that the persistence of the GR is caused by a low level of aggregate demand, due neither to price rigidity nor to unaccounted shocks but to structural changes generated by the NE. This claim can be made clear by carrying out a 'balanced' analysis of the impact of its key trends on demand

drivers. The analysis only has an illustrative intent and does not seek to demonstrate its claims rigorously on the grounds of empirical evidence.

A. Consumption

The NE tends to have an overall negative impact on consumption, both in quantity and 'quality' terms by widening a crucial aspiration gap which the BSA helps us to focus upon. On the one hand, the NE increases consumers' aspirations by generating powerful pressures to increase the propensity to consume, as shown, for example, by indicators such as the reduction in savings ratios, the increasing velocity of circulation of money and its dematerialization. One may note, for example, that, by changing agents' perception of time (i.e. the shortening of their horizons), technological change creates a growing number of 'artificial' needs as it brings about greater product differentiation, as well as the expansion of firms' advertising budgets to induce consumers to buy. Moreover, by changing agents' perception of space, globalization encourages them to buy more foreign goods, which are, for example, more varied and cheaper than domestic goods. A further pressure to spend arises because of financialisation, which, by changing agents' changing perception of value, apparently loosens liquidity constraints. In the end, the NE also tends to increase consumption as a compensation for the erosion of social capital or lower 'happiness'.

These pressures are only partly counteracted by opposite tendencies to defer consumption. For example, as shown by the increasing role of confidence indexes in the NE, consumers tend to be structurally more 'anxious' and thus more likely to overreact to adverse news. This accounts for the increasing propensity to hold money that characterizes the GR, as well as other times of depression, and, together with higher unemployment rates, explains why by Central Banks' liquidity injections have not produced inflation to date.

On the other hand, the reality of stagnating wages and adverse income distribution generated by the key trends of the NE as well as by shrinking welfare expenditure, implies that this tendency cannot be accommodated and effective demand is bound to lag behind aspiration levels. This gap in the NE, which can be taken as a symptom of people's 'unhappiness', is closed at least partially by increasing personal debt. In other words, the 'quality' of consumption is deteriorating in so far as it is increasingly debt-financed (for a similar conclusion see e.g. Fitoussi and Stiglitz, 2009, Crotty, 2009).

B. Propensity to invest

The NE tends to have an overall negative impact on investment too. The positive effects of technological change (e.g., greater opportunities for innovation in new sectors such as the green economy) and financial innovation (e.g., easier access, in principle, to capital markets) are more than compensated by several negative effects, such as consumers' greater unhappiness (generating a negative accelerator effect on investment) and agents' changing perception of space and collective trust (in particular, the erosion of social capital in the shape of 'national' identity or ties) induced by globalization, which makes it easier for firms to invest abroad.

A further tendency to decrease real investment is due to agents' changing perceptions of value induced by financialization; that is to say the greater relative attractiveness of financial markets, which leads manufacturing firms to focus more on returns from financial investment than on accumulation of real capital assets. Moreover, the 'quality' of their investment is also negatively influenced by typical features of financial markets such as short-termism and bad practices, such as fraud and false accounting.

In the end, non-financial business firms may defer investment because their long-term expectations tend to become more unstable. In the complex, rapidly changing NE, all trends combine to make it more difficult for firms to estimate expected returns on investment. For example, this is the effect of larger and faster information flows increasing uncertainty about future scenarios, as well as the greater weight of intangibles.

C. Exports

From the standpoint of western countries, the NE also brings about lower exports. They may be hit by the growing volatility of financial markets and exchange rates as well as the faster transmission of financial and real disturbances across countries produced by the combination of all the NE trends. Moreover, exports are reduced by globalisation, which favours production in emerging countries.

D. Public expenditure

In the end, the NE also generates a tendency to cut public expenditure for welfare and investment purposes, thus increasing rather than reducing global instability generated by the lack of aggregate demand in the private sector. Strictly speaking, this tendency does not imply a reduction in total public expenditure (G) in relation to GDP, as well as public debt/GDP ratios. Although the NE was widely celebrated for its tendencies towards deregulation and reduction of budget deficits and the role of the state in the economy, the GR marks a sharp reversal of such tendencies by changing dramatically the composition of G: in particular, in order to reassure financial markets, governments' massive financial sector bail-outs have been at least partly compensated by welfare cuts.

4. Conclusion

This paper has tried to indicate a way out of the stalemate in current macro in the face of the GR. In contrast with 1930s, the current crisis of the dominant paradigm, ultimately caused by its deductivist method and internal stability assumption, has so far failed to produce to a clear-cut alternative either in theory or in policy. One likely reason is that all those who disagree with standard macro fail to converge on a new alternative paradigm suggesting a plausible method to deal with macro stability analysis.

This paper's aim is to provide a first, tentative contribution along these lines by explaining the persistence of the GR on the grounds of a new approach to stability, the BSA, designed to extend the application of Keynesian analysis beyond the 'short-run', to which it is often confined, both in theory and policy, by friend and foe alike.

Based on the 'fragility of conventions hypothesis', which leads one to focus on a variable level of collective trust as a key dynamic element in the analysis, the BSA seeks to overcome some of the limitations of existing heterodox frameworks by suggesting that the principle of effective demand is the basis for dealing not just with fluctuations but also with 'normal' times, in which events such as the GR do not necessarily arise but are possible.

Following this view, the BSA subscribes to the thesis that the GR is rooted not only in developments within the financial system but also in low aggregate demand due to other factors, such as income inequality. Within this perspective, the BSA's specific contribution, with respect, for example, to the Mynskian and Regulation Schools' interpretations, is to stress that what accounts for the aggregate demand problem is a wider range of structural changes of both an objective and a subjective kind, which arise in the NE.

Given the interconnectedness and the complexity of the latter, the BSA holds that one cannot hope to account for such changes on the grounds of better formal methods than existing ones. As shown by the orthodox literature itself, formal models are inevitably partial; i.e. they commit various 'cardinal sins', such as focusing only on key factor, taking everything else as given or omitting key structural variables, such as collective trust. Whatever their usefulness in other contexts, they are not suitable for discussing macro global issues. This is why even orthodox authors, such as Rajan or Reinhart and Rogoff, relying on the stability assumption, provide narrative accounts of the GR just as many other more heterodox writers do.

This paper has sought to show that building a proper narrative account of the GR without assuming internal stability calls for a broad interdisciplinary perspective – which may be termed 'relativistic' in contrast with the 'naturalistic' approach of standard theory – bringing together economic, institutional and cultural factors, in line, for example, with the current growing 'going beyond GDP' literature.

Two conclusions can be drawn from the analysis made by the BSA following this perspective. The first is that there are two distinct aspects of the aggregate demand problem underlying the GR. The first is quantitative. The NE reduces it by generating private sector instability (i.e. less consumption, investment and exports) that is not compensated by a sufficient volume of public expenditure. The second is more qualitative. The reason why low private sector demand occurs is that the NE generates a declining collective trust or 'unhappiness', which is due to factors such as the erosion of social capital (due to factors including short-termism and greater permeability to fraudulent practices) and a

widening gap between consumers' aspirations and their stagnating paycheques: while the propensity to consume was stimulated by technological change and globalization, effective demand was held back by these very same forces bringing about adverse income and wealth distribution. In order to bridge this gap, backed by waves of financial innovation and the influence of efficient markets theories people were then almost forced to go into debt. Thus new investment projects were not being stimulated.

The second conclusion is that this analysis has significant implications in terms of policy. To cure the GR it is not enough to rule out frictions or change the incentive structure or approve new restrictive financial legislation or simply increase public expenditure. In view of the more prominent role of collective trust in the NE, what are needed are subtler confidence-restoring moves than in the past. In particular, it is crucial that policymakers break with the painful pragmatic policy sequence amounting to accept 'right' (i.e. Keynesian) policies only as last-resort moves in bad times and embrace discretionary policy as a deliberate first-choice for all times. This does not imply that public debts can increase forever but that, if governments stick to a coherent policy view throughout – which includes, for example, the need to reassure consumers by preserving the welfare system – they can do much to reassure financial markets too.

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References

¹ As Lucas remarked in 2007:

So I am skeptical about the argument that the subprime mortgage problem will contaminate the whole mortgage market, that housing construction will come to a halt, and that the economy will slip into a recession. Every step in this chain is questionable and none has been quantified. If we have learned anything from the past 20 years it is that there is a lot of stability built into the real economy.

(Lucas, 2007).

² As Lucas admitted almost ten years ago when discussing the achievements of DSGE models, ‘there is a residue of things they don’t let us think about. They don’t let us think about the U.S. experience in the 1930s or about financial crises ...They don’t let us think... very well about Japan in the 1990s’ (Lucas, 2004, p. 23). Since then, the residue has grown larger and larger. For a critique of DSGE models, see e.g. Quggin, 2009, ch.3; Frydman and Goldberg, 2011, pp.8-9.

³ For analysis of the role of animal spirits in standard models, see e.g. Dow and Dow, 2011, Dow, 2012, ch. 3.

⁴ 'Keynes understood the economy as an open organic system, where creativity and evolutionary changes meant that the past was only a limited guide to the future' (Dow and Dow, 2011, p.6).

⁵ This view is basically in tune with Chapter 18 of the *General Theory*, where Keynes makes the distinction between the basic or primary data of his demand sequence (e.g. the various propensities to consume, invest and liquidity preference) and the secondary data (objective factors taken as given for the purpose of his analysis, such as market forms, technology or population). Although he failed to discuss how the basic data change through time in the face of possible changes in secondary data, thus leaving his dynamic analysis concerning the 'laws of motion' of aggregate demand quite unaccomplished, it can be argued, as I do below, that he managed to identify the key elements of this analysis. This is not the place to discuss the limitations of the *General Theory* at length. For a discussion, see e.g. Togati, 2006, 2012.

⁶ Also Akerlof and Shiller, 2009 pursue an endogenization of 'animal spirits' on the grounds of a broad or 'all-encompassing' interpretation of this concept, one that includes both innate forces and conventional features. Unlike Dow who emphasizes the need to overcome dualistic distinctions in the analysis of agents' behaviour such as that between cognition and sentiment, these authors stick to the standard view of rationality and regard 'animal spirits' as being entirely irrational.

⁷ As I argue below, there is reason to believe that the term 'collective trust' is preferable to 'collective confidence' for the analysis of the stability of today's global capitalism.

⁸ The view of trust as a causal factor, rather than a consequence of economic change, is held for example by Sheila Dow (2012) '...the functioning of the economy in general .., require(s) the presence of a key social convention: trust' (2012, p. 86) and Tony Lawson, who stresses that when, 'trust and confidence break down, we can have...(a) crisis' (Lawson, 2009, p. 768), such as the GR. See also Zucker, 1985. In particular, following a strong view of emergence that posits the irreducibility of entities to their individual components, such as that put forward by Lawson (2012 B, pp. 348-9), I regard 'collective trust' as a causal emergent feature.

⁹ For a critique of the deductivist model, see e.g. Dow (2011, 2012) and Lawson (2009, 2012).

¹⁰ Other authors simply recognize that lack of prediction of crises is not so important for science. After all, economics is in good company, not unlike geology, which is incapable of predicting earthquakes. What is crucial for science is 'understanding' (e.g. Bisin, 2013).

¹¹ One type of critique, advanced even by insiders, is that the core of current macro (i.e. the DSGE models) is inadequate to deal with the GR because 'it has limited connection with reality' as 'it has become so mesmerized with its own internal logic that it has begun to confuse the precision it has achieved about its own world with the precision that it has about the real one' (Caballero 2010: 85).

¹² As Hall notes, such frictions 'cannot explain why GDP and employment failed to recover once the financial crisis subsided – the model implies a recovery as soon as financial frictions return to normal' (Hall, 2010, p.3). Standard models can explain persistence only on the grounds of price rigidities (see e.g. Woodford, 2010, p.39).

¹³ Several contributions, such as those of Roubini and Mihm, 2010, Lo, 2012 and Blinder, 2012, ch.2, provide long lists of critical factors, which include, greed, asset price bubbles, lax financial regulation, the originate-to-distribute model of business underlying the securitization process, the opaqueness of securitized debt, mark-to-market pricing, misaligned incentives of 'too big to fail' financial institutions that took excessive risk, excessive leverage, underestimation of risk, perverse managers' compensation schemes, the abysmal performance of rating agencies, declining lending standards, the current account deficit of the U. S., capital inflows into the U.S. and their over-expansionist monetary policy.

¹⁴ 'One set of fault lines stems from domestic political stresses, especially in the United States...the second set of fault lines emanates from trade imbalances between countries stemming from prior patterns of growth. The final set of fault lines develops when different types of financial systems come into contact to finance the trade imbalances: specifically, when the transparent financial systems in countries like the United States...finance, are financed by, less transparent systems in much of the rest of the world. Because different financial systems work on different principles and involve different forms of government intervention, they tend to distort each other's functioning whenever they come into close contact' (Rajan, 2010, p.7).

¹⁵ In particular, risk evaluation models, 'relied on optimistic assumptions that minimized measured risk' (Roubini and Mihm, 2010, p. 67) and implied that 'a major financial crash was extremely unlikely' (Boyer, 2012, p. 283).

¹⁶ As his onion metaphor suggests, this is Stiglitz's favourite deep explanation for the crisis:

figuring out what happened is like 'peeling an onion': each explanation raises new questions. In peeling back the onion, we need to ask, Why did the financial sector fail so badly?.....I will give a simple explanation: flawed incentives. But then we must push back again: Why were there flawed incentives? Why didn't the market 'discipline' firms that employed flawed incentives

structures?...The answers...include a flawed system of corporate governance, inadequate enforcement of competition law, and imperfect information and an inadequate understanding of risk on the part of the investors.

(Stiglitz 2010: 11)

¹⁷ As noted, for example, by Boyer, who develops a similar approach to analyse the impact of austerity plans in Europe, 'there is no general theoretical reason to guarantee the success of any austerity policy. Everything depends on how [a number of] opposite effects interact' (Boyer, 2012, p. 297).

¹⁸ As Lucas makes clear, in view of the artificial nature of stochastic regularities, such frameworks are not realistic representations of the economy. Indeed they should be regarded as an 'artificial economy which behaves through time so as to imitate closely the time series behaviour of actual economies' (Lucas, 1977, p. 11).

¹⁹ The fact that in the standard paradigm crises have no significant place and thus appear only as 'freak events: highly improbable, extremely unusual, largely unpredictable, and fleeting in their consequences' (Roubini and Mihm, 2010, p.4) is well confirmed by Lucas's candid admission that the simulations of standard forecasting models 'were presented... as a forecast of what could be expected conditional on a crisis non occurring' (Lucas, 2009. p. 63). Similarly, Sargent notes that standard 'models were designed to describe aggregate economic fluctuations during normal times when markets can bring borrowers and lenders together in orderly ways, not during financial crises and market breakdowns' (Rolnick, 2010, p.30).

²⁰ Roubini and Mihm also stress the normality of crises in capitalism, due to general factors such as its power of innovation and its tolerance for risk that set the stage for asset and credit bubbles, and thus place the GR in the contest of other crises 'that have occurred over the ages and across the world. After all, the past few years conform to a familiar, centuries-old pattern. Crises follow consistent trajectories and yield predictable results. They are far more common and comprehensible than conventional wisdom would lead you to believe...Crises...are neither the freak events that modern economics has made them seem nor the rare 'black swans' that other commentators have made them out to be. Rather, they are common-place and relatively easy to foresee and to comprehend. Call them white swans' (Roubini and Mihm, 2010, pp.6-7).

²¹ As I argued in past contributions, it is possible to establish a conceptual link between many features of Keynes's theory, which lies at the heart of the BSA, and Einstein's relativity theory. See e.g. Togati (1998, 2001). The critique of the notion of natural laws also underlies Minsky's stance. He notes, for example, that 'Economic systems are not natural systems. An economy is a social organization created either through legislation or by an evolutionary process of invention and innovation. Policy can change

both the details and the overall character of the economy...' (Minsky, 1986, p.7).

²² Marxist contributions also follow this approach. See e.g. Bellamy Foster and Magdoff (2009), who characterize contemporary capitalism as the phase of monopoly-finance capitalism; for a survey, see Basu and Vadesavan (2013).

²³ As he puts it, 'Beneath the foam of financial bubbles...the diffusion of credit-led growth regimes...can be interpreted as a way out of the long-lasting crisis of the post-World War II Fordist regime that was built upon the synchronization of mass production and mass consumption, an extended welfare, and a reduction in inequality...' (Boyer., 2012, p.286).

²⁴ Mynskian contributions to the analysis of the GR emphasize a particular aspect of this feature, namely the interconnectedness of portfolios as accounting for systemic risk. For a critical analysis of this point, e.g. Dow, 2012, p.5.

²⁵ This point cannot be further developed here. For more details about the link between postmodernism and the NE, see Padua 2011, Togati 2006, 2012.

²⁶ As Padua points out with reference to sociologists' contributions -- such as those by Giddens and Beck, interpreting the NE as the 'society of risk'-- their standpoint justifies the special emphasis placed on trust: 'In the global society trust has a greater role than confidence. As global society usually connect subjects who don't know each other, an investment in trust become of utmost importance. In the Internet Age society...the individual has a 'strong psychological need to trust others'... In truth, the open-network character of the digital society doesn't facilitate the satisfaction of this requirement, and a feeling of risk thus becomes pervasive' (Padua, 2011, pp.6-7).

²⁷ The emphasis on the peculiarity of the NE does not deny that many similarities exist between the GR and the Great Depression, in particular mechanisms, such as 'irrational euphoria, the pyramids of leverage, the financial innovations, the asset price bubbles, the panics, and the runs on banks and other financial institutions' (Roubini and Mihm, 2010, p. 14).

²⁸ In particular, unlike Greenspan, in his 2009 book co-authored with Akerlof, Shiller interprets 'animal spirits' very broadly, that is in social, rather than 'naturalistic' or individualistic terms, and thus encompasses a number of important social dimensions such as confidence, cultural norms and 'stories'.

²⁹ In what follows, I do not mean to criticize the ceteris paribus method per se (it may be fully legitimate in some contexts, and its use is certainly not limited to standard theory). I only emphasize its limitations as far as the analysis of macro stability and the GR is concerned.

³⁰ Lucas also hints at an internal 'confidence' problem underlying the GR -- for example, he talks about a 'fear-driven rush to liquidity' (Lucas 2009: 63)- which is scarcely in tune with the 'deep' parameters stance of standard theory.

³¹ In particular, unlike Mynskian contributions, the BSA places the emphasis on the dynamic behaviour of other components of aggregate demand beyond investment. The GR highlights, for example, the crucial role of consumption. Secondly, the BSA focuses on fragility and malleability of conventions, rather than financial fragility, as the key endogenous element. Thirdly, financial fragility plays a role in shaping all of them (not just the propensity to invest), but is not the exclusive determining factor.

³² As Lo points out in his review, several accounts of the GR emphasise that the NE involves significant risk-shifting moves. Lowenstein's account, for example, considers the crisis a natural consequences of a financial system that, rather than extracting Marxist super-profits from society, extracted risk from its investments and dumped it on those members of society least able to handle it. The individual firm reduces its risk, but society as a whole has its risk increased (Lo, 2012, p.171).

³³ 'To the degree that problems are evolving, we must evolve institutions, political, economic and social, that will solve those problems. ... In a world of uncertainty in which nobody knows the right answer, you need to try out a lot of things and hope you will find one that works' (North, 2003, p.8).

³⁴ Again there is a similarity with North here. In contrast with the reductionist approach of neoclassical analysis, he places the emphasis not just on formal rules, but also on the informal norms, their enforcement characteristics and in general the cultural backgrounds.

³⁵ Due to its internal stability assumption, the neoclassical approach Rodrik relies upon can only achieve a limited policy flexibility with respect to natural laws; that is, it cannot go beyond pragmatism. The point is that his conditional view only represents a defensive step in terms of policy. While quite honestly admitting that standard neoclassical theory has a limited value as it only applies under very strict side conditions, it cannot say what to do when such side conditions are not met. This is so for one simple reason: neoclassical theory is not as general as Rodrik believes: it has no method to deal with macro stability, other than simply assuming it.

³⁶ As Boyer points out, the deterioration of public finances 'can sometimes cause an economic crisis, in other circumstances it might simply be a consequence and a symptom of another illness incorrectly diagnosed' (2012, p.297).

³⁷ Another instance is the view that large balance sheet disequilibria cannot be cured by the conventional tools since agents are seeking to minimize debt.

ⁱ As Lucas remarked in 2007:

So I am skeptical about the argument that the subprime mortgage problem will contaminate the whole mortgage market, that housing construction will come to a halt, and that the economy will slip into a recession. Every step in this chain is questionable and none has been quantified. If we have learned anything from the past 20 years it is that there is a lot of stability built into the real economy.

(Lucas, 2007).

ⁱⁱ As Lucas admitted almost ten years ago when discussing the achievements of DSGE models, 'there is a residue of things they don't let us think about. They don't let us think about the U.S. experience in the 1930s or about financial crises ...They don't let us think... very well about Japan in the 1990s' (Lucas, 2004, p. 23). Since then, the residue has grown larger and larger. For a critique of DSGE models, see e.g. Quggin, 2009, ch.3; Frydman and Goldberg, 2011, pp.8-9.

ⁱⁱⁱ For analysis of the role of animal spirits in standard models, see e.g. Dow and Dow, 2011, Dow, 2012, ch. 3.

^{iv} 'Keynes understood the economy as an open organic system, where creativity and evolutionary changes meant that the past was only a limited guide to the future' (Dow and Dow, 2011, p.6).

^v This view is basically in tune with Chapter 18 of the *General Theory*, where Keynes makes the distinction between the basic or primary data of his demand sequence (e.g. the various propensities to consume, invest and liquidity preference) and the secondary data (objective factors taken as given for the purpose of his analysis, such as market forms, technology or population). Although he failed to discuss how the basic data change through time in the face of possible changes in secondary data, thus leaving his dynamic analysis concerning the 'laws of motion' of aggregate demand quite unaccomplished, it can be argued, as I do below, that he managed to identify the key elements of this analysis. This is not the place to discuss the limitations of the *General Theory* at length. For a discussion, see e.g. Togati, 2006, 2012

^{vi} Also Akerlof and Shiller, 2009 pursue an endogenization of 'animal spirits' on the grounds of a broad or 'all-encompassing' interpretation of this concept, one that includes both innate forces and conventional features. Unlike Dow who emphasizes the need to overcome dualistic distinctions in the analysis of agents' behaviour such as that between cognition and sentiment, these authors stick to the standard view of rationality and regard 'animal spirits' as being entirely irrational.

^{vii} As I argue below, there is reason to believe that the term 'collective trust' is preferable to 'collective confidence' for the analysis of the stability of today's global capitalism.

^{viii} The view of trust as a causal factor, rather than a consequence of economic change, is held for example by Sheila Dow (2012) '...the functioning of the economy in general ..., require(s) the presence of a key social convention: trust' (2012, p. 86) and Tony Lawson, who stresses that when, 'trust and confidence break down, we can have...(a) crisis' (Lawson, 2009, p. 768), such as the GR. See also Zucker, 1985. In particular, following a strong view of emergence that posits the irreducibility of entities to their individual components, such as that put forward by Lawson (2012 B, pp. 348-9), I regard 'collective trust' as a causal emergent feature.

^{ix} For a critique of the deductivist model, see e.g. Dow (2011, 2012) and Lawson (2009, 2012).

^x Other authors simply recognize that lack of prediction of crises is not so important for science. After all, economics is in good company, not unlike geology, which is incapable of predicting earthquakes. What is crucial for science is 'understanding' (e.g. Bisin, 2012).

^{xi} One type of critique, advanced even by insiders, is that the core of current macro (i.e. the DSGE models) is inadequate to deal with the GR because 'it has limited connection with reality' as 'it has become so mesmerized with its own internal logic that it has begun to confuse the precision it has achieved about its own world with the precision that it has about the real one' (Caballero 2010: 85).

^{xii} As Hall notes, such frictions 'cannot explain why GDP and employment failed to recover once the financial crisis subsided – the model implies a recovery as soon as financial frictions return to normal' (Hall, 2010, p.3). Standard models can explain persistence only on the grounds of price rigidities (see e.g. Woodford, 2010, p.39).

^{xiii} Several contributions, such as those of Roubini and Mihm, 2010, Lo, 2012 and Blinder, 2012, ch.2, provide long lists of critical factors, which include, greed, asset price bubbles, lax financial regulation, the originate-to-distribute model of business underlying the securitization process, the opaqueness of securitized debt, mark-to-market pricing, misaligned incentives of 'too big to fail' financial institutions that took excessive risk, excessive leverage, underestimation of risk, perverse managers' compensation schemes, the abysmal performance of rating

agencies, declining lending standards, the current account deficit of the U. S., capital inflows into the U.S. and their over-expansionist monetary policy.

^{xiv} ‘One set of fault lines stems from domestic political stresses, especially in the United States...the second set of fault lines emanates from trade imbalances between countries stemming from prior patterns of growth. The final set of fault lines develops when different types of financial systems come into contact to finance the trade imbalances: specifically, when the transparent financial systems in countries like the United States...finance, are financed by, less transparent systems in much of the rest of the world. Because different financial systems work on different principles and involve different forms of government intervention, they tend to distort each other’s functioning whenever they come into close contact’ (Rajan, 2010, p.7).

^{xv} In particular, risk evaluation models, ‘relied on optimistic assumptions that minimized measured risk’ (Roubini and Mihm, 2010, p. 67) and implied that ‘a major financial crash was extremely unlikely’ (Boyer, 2012, p. 283).

^{xvi} As his onion metaphor suggests, this is Stiglitz's favourite deep explanation for the crisis:

figuring out what happened is like 'peeling an onion': each explanation raises new questions. In peeling back the onion, we need to ask, Why did the financial sector fail so badly?.....I will give a simple explanation: flawed incentives. But then we must push back again: Why were there flawed incentives? Why didn't the market ' discipline' firms that employed flawed incentives structures?...The answers...include a flawed system of corporate governance, inadequate enforcement of competition law, and imperfect information and an inadequate understanding of risk on the part of the investors.

(Stiglitz 2010a: 11)

^{xvii} As noted, for example, by Boyer, who develops a similar approach to analyse the impact of austerity plans in Europe, ‘there is no general theoretical reason to guarantee the success of any austerity policy. Everything depends on how [a number of] opposite effects interact’ (Boyer, 2012, p. 297).

^{xviii} As Lucas makes clear, in view of the artificial nature of stochastic regularities, such frameworks are not realistic representations of the economy. Indeed they should be regarded as an 'artificial economy which behaves through time so as to imitate closely the time series behaviour of actual economies' (Lucas, 1977, p. 11).

^{xix} The fact that in the standard paradigm crises have no significant place and thus appear only as 'freak events: highly improbable, extremely unusual, largely unpredictable, and fleeting in their consequences' (Roubini and Mihm, 2010, p.4) is well confirmed by Lucas's candid admission that the simulations of standard forecasting models 'were presented... as a forecast of what could be expected conditional on a crisis non occurring' (Lucas, 2009, p. 63). Similarly, Sargent notes that standard 'models were designed to describe aggregate economic fluctuations during normal times when markets can bring borrowers and lenders together in orderly ways, not during financial crises and market breakdowns' (Rolnick, 2010, p.30).

^{xx} Roubini and Mihm also stress the normality of crises in capitalism, due to general factors such as its power of innovation and its tolerance for risk that set the stage for asset and credit bubbles, and thus place the GR in the contest of other crises 'that have occurred over the ages and across the world. After all, the past few years conform to a familiar, centuries-old pattern. Crises follow consistent trajectories and yield predictable results. They are far more common and comprehensible than conventional wisdom would lead you to believe...Crises...are neither the freak events that modern economics has made them seem nor the rare 'black swans' that other commentators have made them out to be. Rather, they are common-place and relatively easy to foresee and to comprehend. Call them white swans' (Roubini and Mihm, 2010, pp.6-7).

^{xxi} As I argued in past contributions, it is possible to establish a conceptual link between many features of Keynes's theory, which lies at the heart of the BSA, and Einstein's relativity theory. See e.g. Togati (1998, 2001). The critique of the notion of natural laws also underlies Minsky's stance. He notes, for example, that 'Economic systems are not natural systems. An economy is a social organization created either through legislation or by an evolutionary process of invention and innovation. Policy can change both the details and the overall character of the economy...' (Minsky, 1986, p.7).

^{xxii} Marxist contributions also follow this approach. See e.g. Bellamy Foster and Magdoff (2009), who characterize contemporary capitalism as the phase of monopoly-finance capitalism; for a survey, see Basu and Vadesavan (2013).

^{xxiii} As he puts it, 'Beneath the foam of financial bubbles...the diffusion of credit-led growth regimes...can be interpreted as a way out of the long-lasting crisis of the post-World War II Fordist regime that was built upon the synchronization of mass production and mass consumption, an extended welfare, and a reduction in inequality...' (Boyer., 2012, p.286).

^{xxiv} Mynskian contributions to the analysis of the GR emphasize a particular aspect of this feature, namely the interconnectedness of portfolios as accounting for systemic risk. For a critical analysis of this point, e.g. Dow, 2012, p.5.

^{xxv} This point cannot be further developed here. For more details about the link between postmodernism and the NE, see Padua 2011, Togati 2006, 2012.

^{xxvi} As Padua points out with reference to sociologists' contributions -- such as those by Giddens and Beck, interpreting the NE as the 'society of risk'-- their standpoint justifies the special emphasis placed on trust: 'In the global society trust has a greater role than confidence. As global society usually connect subjects who don't know each other, an investment in trust become of utmost importance. In the Internet Age society...the individual has a 'strong psychological need to trust others'... In truth, the open-network character of the digital society doesn't facilitate the satisfaction of this requirement, and a feeling of risk thus becomes pervasive' (Padua, 2011, pp.6-7).

^{xxvii} The emphasis on the peculiarity of the NE does not deny that many similarities exist between the GR and the Great Depression, in particular mechanisms, such as 'irrational euphoria, the pyramids of leverage, the financial innovations, the asset price bubbles, the panics, and the runs on banks and other financial institutions' (Roubini and Mihm, 2010, p. 14).

^{xxviii} In particular, unlike Greenspan, in his 2009 book co-authored with Akerlof, Shiller interprets 'animal spirits' very broadly, that is in social, rather than 'naturalistic' or individualistic terms, and thus encompasses a number of important social dimensions such as confidence, cultural norms and 'stories'.

^{xxxix} In what follows, I do not mean to criticize the ceteris paribus method per se (it may be fully legitimate in some contexts, and its use is certainly not limited to standard theory). I only emphasize its limitations as far as the analysis of macro stability and the GR is concerned.

^{xxx} ^{xxx} Lucas also hints at an internal 'confidence' problem underlying the GR -- for example, he talks about a 'fear-driven rush to liquidity' (Lucas 2009: 63)- which is scarcely in tune with the 'deep' parameters stance of standard theory.

^{xxxi} In particular, unlike Mynskian contributions, the BSA places the emphasis on the dynamic behaviour of other components of aggregate demand beyond investment. The GR highlights, for example, the crucial role of consumption. Secondly, the BSA focuses on fragility and malleability of conventions, rather than financial fragility, as the key endogenous element. Thirdly, financial fragility plays a role in shaping all of them (not just the propensity to invest), but is not the exclusive determining factor.

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^{xxxiii} 'To the degree that problems are evolving, we must evolve institutions, political, economic and social, that will solve those problems. ... In a world of uncertainty in which nobody knows the right answer, you need to try out a lot of things and hope you will find one that works' (North, 2003, p.8).

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^{xxxvii} Another instance is the view that large balance sheet disequilibria cannot be cured by the conventional tools since agents are seeking to minimize debt rather than maximize utility (e.g. Koo, 2009).