Federal Reserve Bank of Dallas
Globalization and Monetary Policy Institute
Working Paper No. 250
http://www.dallasfed.org/assets/documents/institute/wpapers/2015/0250.pdf

How False Beliefs About Exchange Rate Systems Threaten Global Growth and the Existence of the Eurozone*

William R. White

September 2015

Abstract

The current belief system that says "all will be well" if domestic price stability can be maintained is fundamentally flawed. If this can be achieved only through monetary, credit and debt expansion, the end result will be an increased risk of systemic crisis. Moreover, false beliefs about how exchange rate systems function, at both the global level and within the Eurozone, imply international "spillover" effects that increase both the likelihood and the seriousness of such crises. Gross international capital flows pose as many (perhaps more) dangers than do net flows (ie current account imbalances). And false beliefs about exchange rate regimes not only compromise crisis prevention, but they also hinder crisis management and resolution. At the global level, we still lack the instruments to do either effectively should current problems worsen. In the Eurozone, the crisis which began in 2010 has not been well managed and remains fundamentally unresolved.

JEL codes: B52, E5, F42, F45

* William R. White is currently the chairman of The Economic and Development Review Committee at the OECD in Paris. He was previously Economic Advisor and Head of the Monetary and Economic Department at the Bank for International Settlements in Basel, Switzerland. +41-(0)-79-834-90-66. white.william@sunrise.ch. This paper expresses my personal views and not necessarily the views of any institution or group with which I am or have been associated. Without in any way implicating them or associating them with my personal views, I would like to thank Philippe Legrain, David Marsh, Hans-Werner Sinn, Gunter Baer and the European desk of the OECD for having commented on this paper. I hope it is much improved as a result. The views in this paper are those of the author and do not necessarily reflect the views of Federal Reserve Bank of Dallas, the Federal Reserve System or any of the institutions to which the author is or has been associated.

A. Introduction

The ongoing economic and financial crisis has raised many questions. How much do we really know about how the global economy operates and the Eurozone within it? Many people have "beliefs", but belief is not "knowledge". Knowledge is a belief that can be justified either through the force of logic or recourse to the facts, or preferably both. Unfortunately, a number of widely held beliefs about both the International Monetary System and the Euro zone seem to fail both tests. As Mark Twain said over a century ago, "It ain't the things you don't know what gets you. It's the things that you know for sure, what ain't so". False beliefs about the operations of the International Monetary System and the Eurozone system constitute significant threats to the "strong, sustainable and balanced growth" desired by both the G20 and European political leaders. Indeed, they constitute a threat to the existence of the Eurozone itself.

Actually implementing policy solutions to deal with practical problems demands overcoming three sets of obstacles. These have been referred to since classical times as the "should, could and would" problems. More recently, Véron (2012) has referred to these same concerns by noting that the Eurozone has an analytical deficit, an executive deficit and a democratic deficit. The "should" problem (the analytic deficit) refers to getting agreement at the level of theory about what policy needs to do. The "could" problem (the executive deficit) refers to the issue of power and whether agents that need to act have the power to act. Finally the "would" problem (the democratic deficit) addresses the question of the will to act to do what needs to be done. Broadly speaking these three obstacles respectively address economic, legal and political issues.

This paper is primarily about "should" (analytical) issues, which logically precede the other concerns. If chosen policies are misguided to begin with, being based on false economic beliefs, then it is not at all clear that we would want them to be implemented effectively. Moreover, this paper is focussed on pointing out deficiencies in current beliefs rather than recommending alternatives. This approach is in the spirit of Hayek (1937, p94) who, seeking to improve the workings of the gold standard[1], stated

"The most important step in this direction (improving the rules of the game) is that the **rationale** of an international standard and the true sources of the instability of our present system should be properly appreciated".

Section B. identifies two fundamental analytical challenges. First, there are some important policy insights to be drawn from treating the economy as a complex adaptive system. Unfortunately, this way of looking at the economy is not yet typical for policymakers, whether at the global level or within Europe. Second, as a testimony to this complexity, there are a host of considerations that should in principle be taken into account in choosing an exchange rate regime. In practice, the choices made do not always take into account all the relevant considerations, both short term and especially long term. The basic

[1] Hayek suggests that the failure of the gold standard was primarily due to an important false belief. Governments viewed it as a truly metallic standard that would ensure adjustment by both creditors and debtors when current account imbalances led to international gold flows. This belief was false since it failed to recognize the importance of the national credit structures (essentially fiat money) that had been superimposed on the gold standard over the course of the years.

conclusion is that the "right answer" involves tradeoffs and these can change over time. In sum, it is not hard to make wrong decisions.

Against this background, Section C. and D. are more specifically addressed to current issues. Section C. emphasizes a fundamental misapprehension that has shaped policies at both the level of the International Monetary System and within the Eurozone. This is the false belief that the achievement of CPI price stability would be sufficient to avoid broader macroeconomic problems, including systemic crises involving the financial system. Section D. then turns to additional false beliefs that have contributed to sub optimal policy outcomes, first at the level of the International Monetary System and then at the level of the Eurozone. While these issues are treated separately, the interactions between them add an extra layer of complexity. If false beliefs about how the International Monetary System works constitute a threat to global growth, they will surely have implications for the Eurozone in turn. Similarly, should false beliefs threaten to slow economic growth within the Eurozone, or even its continuing existence, this would undoubtedly have global implications[2]. Section D concludes with some alternative scenarios about how the Eurozone project might evolve. Evidently, this demands the reintroduction of the "could" and "would" issues that will also drive policies going forward. Section E. draws together a few tentative conclusions.

B. Some Fundamental Analytical Challenges

1) The challenge of complexity

The dominant school of economic thought, prior to the crisis, essentially modelled the national economy as a changeless machine[3]. Moreover, the machine always operated at its optimal speed, churning out outputs in an almost totally predicable (linear) way, under the close control of its (policy) operators. While the sudden and unexpected onslaught of the current crisis, to say nothing of its unexpected depth and duration, might have been expected to have put paid to this false belief, in practice it has not[4]. Nevertheless, the crisis has significantly increased interest in another viewpoint, as described in Haldane (2015). Rather than being a machine, the economy should instead be viewed as a complex adaptive system, like a forest, with massive interdependencies among its parts and the potential for highly nonlinear outcomes. Such systems evolve in a path dependent way[5] and there is no equilibrium to return to. There are in fact many such systems in both nature and society[6] and their properties have been well studied[7]. Economists could learn a great deal from these studies. Four points are essential and contain lessons for national policymakers as well as those charged with overseeing the operations of the global economy.

---

[2] See OECD (2012)

[3] The dominant academic models are described as Dynamic Stochastic General Equilibrium Models.

[4] In fact, many if not most macro economists have not changed their views in any significant way. The difficulties in achieving paradigm shifts were well described in Kuhn (1962). For some more recent observations see White (2013).

[5] David (2000)

[6] For example; traffic patterns, movements of crowds, the spread of crime and diseases, social networks, urban development and many more.

[7] For popular introductions, see Ball (2012), Buchanan (2000) and Beinhocker (2006). For a more rigorous analysis, see the many references in Haldane (2015)

First, all complex systems fail regularly; that is, they fall into crisis. Moreover, the literature suggests that the distribution of outcomes is commonly determined by a Power Law. Big crises occur infrequently while smaller ones are more frequent. A look at economic history indicates that the same patterns apply[8]. For example, there were big crises in 1825, 1873 and 1929, as well as smaller ones more recently in the Nordic countries, Japan and South East Asia. The policy lesson to be drawn is that, if crises are indeed inevitable, then we must have ex ante mechanisms in place for managing them. Unfortunately, this was not the case when the global crisis erupted in 2007 and when the Eurozone crisis erupted in 2010.[9]

Second, the trigger for a crisis is irrelevant. It could be anything, perhaps even of trivial importance in itself. It is the system that is unstable. For example, the current global crisis began in 2006 in the subprime sector of the US mortgage market. Governor Bernanke of the Federal Reserve originally estimated that the losses would not exceed 50 billion dollars and they would not extend beyond the subprime market. Today, eight years later and still counting, the crisis has cost many trillions[10] and has gone global. It seems totally implausible that this was “contagion”. Similarly, how could difficulties in tiny Greece in 2010 have had such far reaching and lasting implications for the whole Eurozone? The global crisis was in fact an accident waiting to happen, as indeed was the crisis within the Eurozone. The lesson to be drawn is that we must focus more on interdependencies and systemic risks both at the global level and within the Eurozone. If the timing and triggers for crises are impossible to predict, it remains feasible to identify signs of potential instability building up and to react to them[11]. In particular, economic and financial systems tend to instability as credit and debt levels build up.

Third, complex systems can result in very large economic losses (often associated with political instability) much more frequently than a Normal distribution would suggest. The lesson to be drawn is that policymakers should focus more on avoiding really bad outcomes than on optimizing good ones. We simply do not have the knowledge to do policy optimisation[12]. Unfortunately, both at the global level and within the Eurozone, the focus prior to the crisis was almost totally on how well the economy was performing rather than on the dangerous “imbalances” building up under the surface. As a corollary, using policy levers to lean against growing “imbalances” should also help to lower the costs of crises.

Fourth, looking at economic and financial crises throughout history, they have many similarities but also many differences. History does not repeat itself but it does seem to rhyme. In part this is due to adaptive human behaviour, both in markets and on the part of regulators, in response to previous crises. While excessive credit growth might be common

[8] Economic history has become fashionable again after many years of neglect. See Kindelberger (2005), Reinhart and Rogoff (2009) and Schularick and Taylor (2009)

[9] Sapir and Wolff (2014)

[10] The Federal Reserve Bank of Dallas recently estimated the costs to the US alone will eventually cumulate to one full year of US production at 2013 levels. See Atkinson et al (2013)

[11] The Bank for International Settlements has written extensively on this over the years. See Borio and Lowe (2002) for a seminal example. More recent research seems to indicate that property prices and housing finance are commonly implicated in big breakdowns. See Jorda et al (2014)

[12] This has been a long held view of the Austrian school of economics. It is not surprising that Hayek’s Nobel Prize lecture was titled “The Pretence of Knowledge” See Hayek (1975). An excellent book drawing the link between the Classical economists and modern complexity theory is Simpson (2013). The primary link is through Hayek, especially Hayek (1967)

to most crises, both the source of the credit (banks vs non-banks) and the character of the borrowers (governments, corporations and households) might well be different. Note too that such crises have occurred under a variety of exchange rate regimes. Moreover, prized stability in one area today (say payment systems) does not rule out that area being the trigger for instability tomorrow. Changes in economic structure or behaviour can all too easily transform todays "truth" into tomorrow's "false belief". The lesson to be drawn is that policymakers need eternal vigilance and, indeed, institutional structures that are capable of responding to changed circumstances. Do not fight the last war.

Haldane (2015) notes that a national economy is a very complex system made up of three interconnected complex systems; individual financial institutions, the financial system and the real economy. He notes that each of the three can be influenced by government policies; micro prudential, macro prudential and monetary policies respectively. Haldane then documents how interactions between these national economies have grown rapidly in recent year, adding a fourth layer of complexity. Finally, he adds (p 20) "it is here where the existing policy architecture may at present be most deficient". In this paper, an attempt is made to identify some of these shortcomings both at the global level and at the level of the Eurozone.

2) The challenge of choosing an exchange rate regime

The need to choose an exchange rate regime reflects the underlying reality of what is called the Impossible Trinity[13]. A country cannot simultaneously have highly mobile international capital flows, an autonomous monetary policy and a fixed exchange rate. For example, tighter monetary policy will attract capital inflows and this will threaten the fixed exchange rate. The practical question is which of the three elements policymakers choose to give up. At the level of the global economy, the G3 in particular, the choice has been to float. They have chosen to give up the fixed exchange rate. Conversely at the level of the Eurozone, the individual sovereign countries have given up their capacity to follow an autonomous monetary policy. In still further contrast, many emerging market countries have decided not to choose one of these corner solutions. Rather, they have taken measures (largely administrative) to constrain each element of the Impossible Trinity in the hope of producing a coherent policy package[14].

Why do countries make the exchange rate choices they do? Each regime choice should be made on the basis of a long list of economic pros and cons. There is no "right answer". When political motivations enter in, as was the case leading up to the formation of the Eurozone[15], this conclusion is suggested even more strongly. Moreover, even objective circumstances can change over time (say the degree of wage flexibility) implying that the balance leading to a final decision can also change over time.

Evidently in weighing up the balance of the arguments, trade-offs must be made. While some such trade-offs reflect objective assessments (albeit hard to measure) of the costs and

[13] Mundell (1963)

[14] The suggested constraints include the following. Use monetary policy in a rather cautious way. Constrain capital flows using capital controls and macro prudential policies. Use foreign exchange intervention to moderate exchange rate changes. It is far too early to say that these efforts have been successful.

[15] James (2012) argues that the political motivation behind the establishment of the euro zone was less important than many think.

benefits, others simply reflect national preferences. For example, some choose to float arguing that this removes a constraint. Thus, it gives more freedom to policymakers in their pursuit of “strong” growth. Those choosing to fix often emphasize that it provides discipline for policymakers and contributes to more “sustainable” growth. Since “strong” and “sustainable” growth are both desirable, there is an obvious inter temporal trade-off.

The US is traditionally more in the former camp while Germany and other core members of the Eurozone are in the latter. These preferences are often linked to what an individual country considers to have been its “defining historical moment”; the Great Depression in the case of the US and the hyperinflation in central Europe following World War 1[16]. The US therefore has a bias towards growth as an economic objective, while central European countries have a bias towards stability

It is often argued that countries should only fix their exchange rates if they constitute an optimal currency area. In particular, does each part of the area have susceptibility to the same shocks? If not, will highly adjustable wages, high labour mobility and the availability of fiscal transfers act to cushion asymmetric shocks? Unfortunately there is an intertemporal complication here as well. Some would argue that, even absent these advantages, entering into a currency union would foster the required structural changes over time. Many took this line prior to the introduction of the euro. Others, however, took the opposite position, implying a greater chance that the euro construct would not survive.

This debate about the euro echoed the much earlier exchange between Keynes (“wages have become inflexible”) and the UK Treasury (“wages will become flexible again”) when Churchill was deciding whether to put the UK back on the gold standard at the pre War parity. Britain lost a whole decade of growth because of the failure to follow Keynes advice[17]. But was the real problem one of “fixing”, or fixing at too high an exchange rate? Almost a century later, scholars are still debating the issue.

There is another indicator that there can be no “right answer” when it comes to the choice of currency regimes. Both sets of regimes have repeatedly broken down throughout history, or were replaced as experience indicated that their practical shortcomings overwhelmed their presumed advantages. Some transitions were quite orderly, as for example with the introduction of the euro and the breakup of Czechoslovakia. In contrast, other transitions were often quite disorderly ending in deep recession, hyperinflation or often both. The breakup of the Hapsburg Empire, the Soviet Union and of Yugoslavia provide three good examples of such developments.

There have been many transitions from fixed to floating. The gold standard broke down due to the exigencies of financing World War l. The gold exchange standard broke down in the 1930s as countries, particularly those accumulating gold, failed to follow the “rules of the game”. The Bretton Woods system broke down when the US failed to resist inflation as its European partners wanted. And the European Exchange Rate Mechanism proved incapable of dealing with international capital flows after administrative controls over such movements were lifted. While less likely, it is not impossible that the Eurozone could suffer

[16] Also important was the stabilizing role played by the Bundesbank after the introduction of the Deutschmark in the wake of World War 11.
[17] Keynes (1925)

the same fate. Were even one country to leave the Eurozone, it would clearly discredit the notion that this was impossible and possibly raise doubts about other countries as well.

Similarly, there have been many transitions from floating to fixed rate regimes. There was the return to gold after World War l and the introduction of Bretton Woods after World War ll. In the middle to late 1980s, G7 policymakers concluded that the Plaza and the Louvre Accords were needed; the first to lower the value of the US dollar and then the latter to prevent it from falling too far.[18] As well, we have the example of many countries giving up entirely on their own currency and choosing to adopt the dollar or the euro or some other "stable" currency as an alternative. It is not impossible then that the current dollar based system might be replaced with a truly international currency, perhaps linked in some way to the price of something real.[19]

While it must be repeated that there are no "right answers" in this area, it is a simple fact that the G3 and the Eurozone have come to dramatically different conclusions. Unfortunately, both systems are now showing signs of great strain. It would be far too ambitious to give specific suggestions for improving these systems. Rather, the focus of this paper is point out a number of "false beliefs "that are making it more difficult to prevent crises. Moreover, when crises do occur, false beliefs can also lead to policies that make them more difficult both to manage and to resolve. Shortcomings with respect to crisis management and resolution are more clearly evident in the euro zone where the crisis is further advanced than at the global level. If policymakers could only be disabused of these false beliefs, the door would be open for the contemplation of policy actions that would be more successful than those followed to date.

C. The Shared False Belief that Price Stability Ensures Macroeconomic Stability

This belief was shared by all the major central banks, with the possible exception of the Bank of Japan, in the decades leading up to the crisis that began in 2008. Unfortunately, this belief is not true. History should have taught us that CPI price stability does not guarantee macroeconomic stability even in large countries. There was no inflation in the US prior to the Great Depression. There was no significant inflation prior to the Japanese Great Recession, nor in South East Asia prior to their crisis in the late 1990's. These crises were in fact all created by the excessive creation of credit and debt in an environment of very easy monetary conditions.

In the decades leading up to the onset of the current crisis, the global economy was characterized by very easy monetary conditions, directed by central banks to offsetting excessively disinflationary or even deflationary conditions. This pre crisis policy was based on the false belief is that all deflations are bad. In fact deflations associated with positive supply side shocks, like those in recent decades associated with the return of China and other "command and control" economies into the world trading system, are not necessarily bad. Prices can go down even as profits and output levels rise. It is simply a fact that virtually all historical experiences of falling prices have been of this nature. For all practical

[18] As part of that latter effort, Japan's easy money policies arguably contributed to the Japanese "boom and bust" of the 1980s and 1990s. Japan was faced with strong international pressure to keep interest rates low to restrain the rise of the Yen and the fall of the dollar. Arguably, the fallout from this mistaken exchange rate policy is still being felt today.

[19] See Pringle (2012) for some very practical suggestions.

purposes the Great Depression was unique[20]. It is unfortunate then, to say the least, that this particular historical period became the pre crisis template to guide policy makers about how to react to falling prices.

In the pursuit of price stability, the "financial rate" of interest in the advanced market economies was kept well below the "natural rate" of interest for many years prior to the onset of the crisis. Moreover, the former rate was also commonly held below the level recommended by a "Taylor rule"[21]. By 2007 this had led to conditions in financial markets that the BIS warned, rightly, were dangerously unbalanced even if there were no overt signs of CPI inflation. The onset of the current global crisis then proved definitively the falseness of the belief that achieving price stability was a sufficient condition to avoid broader macroeconomic crises. The subsequent onset of the Eurozone crisis simply reinforced this point. Relatively easy monetary conditions in Europe prior to the crisis, induced by the global disinflationary pressures referred to above, contributed to the heavy borrowing by peripheral countries in the Eurozone and to the onslaught of the crisis itself. In this fundamental sense, the Eurozone crisis was a microcosm of the global crisis. As at the global level, aggregate CPI inflation in the Eurozone was well under control prior to the crisis.

Following the onset of the global crisis, financial markets in most advanced market economies seized up in a "Minsky moment" characterized by heightened counterparty risk. Central banks, led by the European Central Bank, responded appropriately with unprecedented and eventually successful efforts to restore market functioning. Subsequently, however, the objective of expansionary monetary policies reverted back to stimulating aggregate demand. This was because unemployment rose very sharply during the global recession of 2009 and inflation threatened to fall below 2 percent, the generally accepted definition of "price stability"

In pursuit of price stability, policy rates were essentially lowered to zero, the size of the balance sheet of the major central banks was massively expanded, and "forward guidance" was given concerning possible future policy actions. The Federal Reserve was the most active supporter of such expansionary policies, contending that they would work and that possible undesired side effects could be ignored. The ECB also participated, albeit much more reluctantly, while the Bank of Japan also reacted very aggressively, but only with a long lag and after the previous Governor of the Bank had been replaced.

Monetary stimulus of this sort is essentially "more of the same "policies that were followed prior to the crisis. Even after seven years, these policies have not succeeded in spurring "strong, sustainable and balanced growth" either at the global level or within the Eurozone. Whereas previous easing cycles had succeeded in reducing unemployment and restoring price stability, these policies were at the same time encouraging the continuous growth of debt and financial leverage. In the English speaking countries, not least the United States, growing debt levels eventually restrained spending by the household sector. In the Eurozone, the problem of excessive debt affected a variety of sectors in the peripheral countries in particular. Corporations almost everywhere in the advanced market economies also cut investment sharply. This could have reflected earlier over investment, uncertainty

[20] See Atkenson and Kehoe (2004). Also Borio et al (2015).
[21] This has been repeatedly documented in various publications of the BIS.

about future government policy as well as the unexpected interaction between low interest rates and corporate compensation practices.[22]

As well, other factors reducing the impact of monetary easing might also have been underestimated by conventional thinking and models. Very low interest rates in support of price stability redistributes income from the middle classes (who mostly hold interest bearing accounts) to richer people (who hold more risky assets). If richer people have a lower marginal propensity to consume than poorer people, the net effect might actually be to reduce consumption rather than increase it. Not surprisingly, this has been a very common theme in the German popular press. Further, low rates of return on financial assets imply the need for more savings, if a particular threshold level (say for a retirement annuity) is to be achieved. Creditors also suffer losses from write offs on bad credits, and financial intermediaries can suffer too. Europe's banks in particular are still not well capitalized and lending to small and medium sized enterprises (SMEs) everywhere has been restrained. Low interest rates squeeze bank margins and profits, as do negative interest rates on reserves with central banks. Similarly, the solvency of many pension funds and insurance companies is becoming increasingly questionable[23]. Finally, for all their longer run benefits, regulatory regimes for the financial sector have become more restrictive virtually everywhere. This might also have impeded lending and near term economic recovery.

If the efficiency of monetary easing in response to excessive disinflation might have been overestimated, the negative implications of the side effects might have been underestimated.[24] One particular side effect is that they have generated market conditions that seem very similar to those prevailing in 2007 prior to the onset of the crisis. As of mid-2015, very low bond rates, narrow high yield spreads, the continued rise in equity prices and the continued easing of credit standards[25] all indicate that the likelihood of a significant setback in global financial markets has become very great. Within the Eurozone, the spreads of peripheral sovereigns (excepting Greece) have fallen so sharply that a number of countries can borrow more cheaply than the US Treasury. Moreover, through the various spill overs described below, the problem of excessive credit growth and associated imbalances is no longer confined to the advanced market economies but has spread to the emerging markets as well. Whereas resilient emerging market economies were thought to be part of the solution to deficient global growth in 2009, by 2015 their domestic weakness has become part of the problem.

The spread of credit driven imbalances to the global stage has largely been due to exchange rate considerations. Central banks in a fiat money world can print an infinite amount of money to resist currency appreciation or to encourage depreciation. Easy monetary policies in the United States first led to dollar depreciation and the onset of what

[22] From a Wicksellian perspective, setting the financial rate below the natural rate results in both too little saving and too much investment. After the onset of crisis, the saving rate tends to rise and the investment rate to fall. Put otherwise, why invest further in production capacity when consumption is likely to be restrained. A different argument is made by Andrew Smithers. In his Blog at the Financial Times, he has repeatedly argued that low interest rates encourage corporate managers to buy back stock with borrowed money to push up the share prices to which their compensation is related. Cutting investment also frees up cash for similar purposes while raising profits through reduced depreciation. These arguments could well be complementary.

[23] See Swiss Re (2014) and Hoffmann (2013)

[24] For a fuller assessment of both, see White (2012)

[25] The proportion of "cov-lite" bank loans in 2014 significantly exceeded 2007.

the Brazilian Minister of Finance called "currency wars". Not only the emerging market economies, but also the Bank of Japan and the European Central Bank, responded with unprecedented monetary initiatives which actually had the effect of reducing the value of their currency against the US dollar. While this process of global liquidity generation is being increasingly monitored by the IMF, the BIS and others, there is no global body in charge of controlling this process. Nor are there any international rules in place, as under the gold standard or the Bretton Woods system, to enforce self-discipline on the part of the major players. Given the false belief that price stability guarantees macroeconomic stability, the process of global liquidity expansion has essentially been allowed to spin out of control. It threatens to become the worst case outcome predicted by Hayek (1937), when he considered how the undisciplined use of national monies might lead to international financial instability[26].

Looking forward, the global economic difficulties arising from the pursuit of price stability (resisting excessive disinflation) seem more likely to worsen than to recede[27]. Non-financial debt levels are almost 20 percentage points (of GDP) higher in 2015 than in 2007[28]. As a result, the possible onset of a Fisher type "debt deflation" is increasingly being viewed as a serious problem[29.] On the one hand, it is being more widely recognized that this situation is a side effect of the earlier attempts of central banks to resist excessively disinflationary tendencies. Very low rates for a very long time actively encourage debt accumulation. Recognition of this possibility might seem logically to call for a shift towards tighter monetary policy to resist further debt accumulation. On the other hand, with debt levels having already grown so high and deflation already threatening, there seems no alternative to keeping policy rates low enough that existing debts remain serviceable. A number of authors have begun to refer to this as a "debt trap", implying that (for them at least) the way out for the global economy is not obvious[30.]

Turning now to the Eurozone, the continued commitment of the ECB to aggregate CPI price stability was made clear by the commitment to Quantitative Easing early in 2015. However, whether it will prove effective in stimulating aggregate demand remains highly problematical. What is more evident are the unwelcome side effects of monetary easing to date in the pursuit of price stability. Property prices in a number of European countries,

[26] Similarly dramatic concerns have been raised more recently by Borio (2014), the Abstract of which describes the possible end game as "an epoch-defining seismic rupture in policy regimes, back to an era of trade and financial protectionism and, possibly, stagnation combined with inflation."

[27] Among the many possible triggers for a global crisis, the situation in Japan as of mid-2015 has perhaps received the least attention. The government deficit is about 7 percent of GDP and government debt is already 250 percent of GDP, the highest in the OECD. The Bank of Japan is currently purchasing government bonds at a rate that implies it is financing 40 percent of the total expenditures of the Japanese government. The principal worry is that, if an increase in inflationary expectations (or anything else) were to shock upwards the rates on government bonds, Japanese government debt would become unserviceable other than through further recourse to the Bank of Japan. History teaches us that such situations can culminate in a sudden shift from price stability (or even from deflation) into high inflation or even hyperinflation. See Bernholz (2006). Theory also supports this position. It is the interaction of bad fiscal and bad monetary policies that creates such problems, not monetary policy alone. See Sargent and Wallace (1981).

[28] McKinsey Global (2015) and Buttiglione et al (2014)

[29] Fisher (1933). If debts are fixed in nominal terms and prices (and the revenues of debtors) are falling, then debt service becomes more difficult.

[30] Sinn (2014), Pringle (2012), Prasad (2014) and the BIS Annual Report for 2014 all refer to " trap" phenomena, albeit in different contexts.

both for houses and commercial property, have recently been under strong upward pressure. The price of financial assets, not least bonds and equity, have risen sharply. While there can be debate about the sustainability of the latter, negative yields on some relatively long term European sovereign bonds must eventually be reversed. Further, it is notable that productivity growth in both France and Germany has been slowing in recent years. In part, this may be due to unusually easy monetary conditions which have allowed banks to support "zombie" companies that would otherwise have been forced into bankruptcy.

Finally, the pursuit of price stability in the Eurozone, post crisis, has some arithmetical implications as well. If prices and wages must fall in peripheral countries to restore competitiveness and reduce current account deficits, as discussed below, then inflation must rise in core countries if the overall target is to be achieved. Core countries with a strong historical aversion to inflation, particularly in Central Europe, might find this prospect very unappealing. At a minimum, this might lead to efforts to prevent the ECB from engaging in policies that might have this inflationary outcome in the core. At a maximum, it might lead to political agitation supporting the withdrawal of core countries from the Eurozone itself.

D. Different False Beliefs About the International Monetary System and the Eurozone Respectively

1) False beliefs about the International Monetary System

In spite of the shrinking share of the US in global production, the dollar continues to lie at the heart of the world economic and financial system. Mistakes made in Washington, on the basis of false beliefs, can thus have big implications everywhere. While Eurozone and Japanese policy makers often share these beliefs, fortunately, the domestic policies they follow in response are likely to affect other countries less[31]. The false beliefs referred to below (advocated most vigorously by US policymakers) in effect support the continuation of the current dollar exchange standard from which the US is thought to derive an "exorbitant privilege".

Largely due to the false beliefs identified below, policymakers failed to **prevent** the current global crisis. In particular, they failed to recognize the international "spillover" effects of domestic policies. As well, by failing to deal with global current account imbalances, they have made the economy more vulnerable to future crises. Moreover, policymakers have also failed to put into place the institutional and other policy changes that would have allowed the crisis to be better **managed** and ultimately **resolved.** Absent that resolution, the crisis remains ongoing and could potentially culminate in a still more dramatic global downturn.

[31] This is not to say there is no influence at all. For example, low policy rates in Japan led to decade long "carry trade" investments pushing up exchange rates and asset prices in many other countries. More recently, the anticipation of Quantitative Easing in the Eurozone had a dramatic effect on the Swiss franc and some other currencies as well. Moreover the effects of the ECB measures were not confined to small countries, but could even be seen in the United States. Many commentators suggested that lower bond rates in the Eurozone in the first half of 2015 were driving down the rates on US Treasuries. This serves to underline the profound interdependencies that currently characterize the global economic and financial system.

Belief 1: Floating will automatically adjust global current account imbalances

Unfortunately, this proposition is not true, either for the US or for other countries. Indeed Padoa-Schioppa has said this belief "is nothing but an illusion".[32] Why is this so? Frequently, the exchange rate simply does not move in the direction required to deal smoothly with an emerging current account problem. The increase in the value of the US dollar from mid-2014 is a case in point. Second, even if the exchange rate does move properly, the shifts in domestic production in response do not take place, or do so only with a long delay. Think of how little reaction there has been to the depreciation of the Yen and the Pound over the last few years[33]. Third, suppose an internal shift (say) towards tradables does occur. Then the government of the country with a current account deficit must improve its fiscal position to make room for this reallocation of real resources. However, this often does not happen and domestic inflation then offsets the increase in "competitiveness" from depreciation of the nominal exchange rate.

An important corollary of this false belief is that countries can and have set domestic policies without worrying about their current account position. For example, when the crisis began the fiscal stimulus provided to the US domestic economy (as a percentage of GDP) was by far the largest of the major OECD countries. Given the size of the US current account deficit, that seemed odd at best. Similarly, this false belief implies that currency areas with current account surpluses have not let this fact condition their domestic policies. There are many recent examples of this.

After the beginning of the crisis in the Eurozone, the peripheral economies in the Eurozone began to lower their current account deficits as required. However, with nothing forcing an offsetting contraction of the surplus in core Eurozone countries, the overall surplus of the Eurozone rose sharply. Moreover, in spite of this strengthening of the Eurozone surplus, the ECB subsequently embarked on a programme of Quantitative Easing. This pushed the euro down sharply against the dollar and should further increase the Eurozone surplus. Further examples would include "Abenomics" in Japan, which resulted in a significant weakening of the Yen in spite of Japan already having a massive net foreign asset position. Looking forward from mid-2015, the domestic Chinese economy also seems to be slowing. Although China has already accumulated the world's largest (ever) stock of foreign exchange reserves, there is nothing to prevent the Chinese authorities from pursuing again an export led growth strategy, perhaps by reversing the renmimbi's recent appreciation.

What should be better appreciated by creditor countries is that the pursuit of such policies could rebound negatively on the creditor countries themselves. More likely is that

[32] See Padoa-Schioppa (2010). The vigour with which he made this case against floating undoubtedly reflected his support for the fixing inherent in the introduction of the euro.

[33] There is a growing empirical literature on this. For some recent references, see Guigliano (2015). Some analysts suggest that this reflects the growing proportion of global trade that is accounted for by high value added products, often part of global value added chains. Such producers prefer to allow exchange rate changes to affect margins rather than their share of global trade in the product. This phenomenon actually attracted attention many years ago. As globalisation was proceeding the "law of one price" should have been ever more in evidence. The puzzle was that exchange rate pass through was not rising but was falling sharply. See Galati and Mellick (2006) and also White (2008).

the resulting strength of the US dollar will weaken the US recovery and in turn weaken economies reliant on the US for export demand. Less likely in the near term, but inevitable eventually, is that rising global current account imbalances will result in a dollar crisis that will affect everyone, not least Europeans with close economic and financial links with the US. Admittedly, such concerns have been around for a long while[34] and have not yet fully materialized. The United States has not yet faced the "sudden stop" of capital inflows faced by debtor countries within the Eurozone. Yet, as the literature on complex systems reminds us, the future need not be like the past. Indeed periods of great instability are often preceded by periods of great stability.[35]

Belief 2: If countries float their currencies, there will be no "spill over" effects from monetary policy in the US.

It does seem to be the case that US monetary policy has "spill over" effects on other countries. Think back to the origins of the Eurozone. An important motivating factor was the recognition that monetary easing in the US had put huge upward pressure on the Deutschmark, in the context of the semi-fixed European Monetary system, and created equally huge exchange rate tensions with other European countries. More recently, unusually easy monetary policies in the US led to large capital inflows into other countries, especially into emerging markets. Further, there has been a marked shift upwards in the correlation between the rates on long US Treasuries and longer term rates in other markets. Capital inflows also led to larger central bank balance sheets and more available funding to support "imbalances" in the countries receiving the inflows.

Prior to the crisis, these capital inflows were largely generated by foreign banks. Subsequently, bonds issued (often offshore) by corporates in emerging markets replaced the banks[36]. Since most of these bonds were issued in dollars, many countries have become exposed, not just to the usual problems of sudden capital outflows, but also currency mismatch problems. Evidently, those who purchased the dollar bonds have also become exposed to the possibility that the debts cannot be serviced if the dollar rises too much in value. Given the magnitude of the capital outflows to date, and the rise in the effective value of the dollar over the last year (to mid-2015), these concerns are real not hypothetical.

More evidence of spill over effects emerged in the spring of 2013 (the "taper tantrum") as the Federal Reserve began considering tightening policy after a long period of easing. Markets in many emerging market countries were severely affected, particularly those with fiscal and current account deficits. As of mid-2015, markets wait with apprehension an actual increase in policy rates in the United Stes. Given low levels of liquidity in many

[34] In the 1960's Robert Triffin gave his name to the "Triffin paradox". If other countries wished to use the dollar as an international currency, the US would have to run current account deficits. In the end, however, the build-up of US foreign liabilities would destroy trust in the dollar and a crisis would ensue as holders of dollars tried to sell them. The first leg of this materialized in the early 1970's as declining confidence in the dollar led countries to demand gold in exchange for dollars. The Bretton Woods system subsequently collapsed. Nevertheless, and despite decades of large US current account deficits, the dollar has continued to be the world's primary reserve currency.

[35] Consider the period called "The Great Moderation" and the turmoil that followed. See also Taleb (2008). The thesis that stability breeds excessive confidence, and in turn lays the ground for subsequent instability, was central to the work of Minsky (2008).

[36] Bank for International Settlements (2015)

markets, especially in emerging market economies, there are fears that the implications for the prices of financial assets could be substantial.

It could of course be argued that all of these "spill over" effects would have been avoided if other countries had been more willing to allow their exchange rates to rise in response to US easing. The difficulty with this argument is that, in addition to Dornbusch (1976) overshooting, there is ample evidence that the theory of uncovered interest parity only holds over very long time periods. Thus, exchange rates can move very long ways from levels justified by fundamentals, causing all sorts of domestic problems in consequence. To some degree then, the "fear of floating" is justified. Rey (2013) goes even further. She suggests that "spill over" effects, not least the high correlation of international bond yields, seem essentially unrelated to the exchange rate regime being pursued by the recipient country. Her final conclusion is that countries can pursue an autonomous monetary policy only if they bring in capital controls.

Belief 3: If floating and price stability rule out future crises, policymakers need not prepare to manage and resolve them.

Everything just said indicates this belief too is untrue. Moreover, even countries like the Nordics, Canada and New Zealand (and many others) that seemed to have come through the crisis essentially unscathed have become more vulnerable to future crises. In these countries, property prices and household debt levels had "boomed" to record levels by 2015, evoking a commensurate rise in concern on the part of national authorities about a subsequent "bust"[37].

If future difficulties seem increasingly likely, policy makers across the globe remain largely unprepared to deal with another serious downturn. Both monetary and fiscal stimulus have effectively reached their limits as crisis prevention measures. As for crisis management, there was and is no international Lender of Last Resort. The resources of the IMF would also be too small to handle a number of small sovereigns in difficulty, much less a few (or even one?) large ones. Of particular concern would be a sharp increase in the demand for dollar funding, as occurred in 2008 after the failure of Lehman Brothers. Only the Federal Reserve could provide such liquidity. While the Fed has established swap lines (first temporary but now permanent) with a number of central banks, including the European Central Bank, they exclude a number of countries that might well face liquidity problems. As well, it remains problematic whether Congress would in the end accede to the Fed lending vast sums of money to foreigners, in the middle of a crisis, without the compulsion of an international treaty to which Congress itself had agreed.

Nor are policymakers better prepared globally to preside over a process of crisis resolution. By this is meant a process of writing off losses, recapitalizing financial institutions and establishing new opportunities for profitable lending. At the global level, there are still no commonly agreed insolvency procedures for globally active banks (including many European banks) and no agreement on the international burden sharing of losses. In effect, the problem of "too big to fail" banks lingers on as does the associated moral hazard.

[37] In Sweden the Riksbank raised interest rates to slow the housing market and debt accumulation, but other parts of the economy slowed more. Faced with global deflationary pressures arising from the drop in commodity prices, the Riksbank then switched tack and introduced a negative policy rate.

2) False beliefs about the Eurozone

One way to begin reflections about the future of the International Monetary System might be in evaluating the success and failures of the Eurozone. There, they have introduced not just a fixed rate system but one that was intended to be immutably so. There is no provision for adjusting currency values within the system. To do so countries must leave the system, and there are no provisions for that either. Worse, since leaving the Eurozone is effectively illegal, exit could imply expulsion from the European Union as well. This is truly a Hotel California in the heart of Europe where "you can check out any time you want, but you can never leave". Should a country find itself, like Greece, with a sovereign debt level so high as to be unserviceable, some (or perhaps a number) of the rules embodied in the Maastricht Treaty will have to be broken or else rewritten. Evidently this will raise political concerns everywhere, but especially in Germany where respect for the rule of law is of a particularly high order.

Unfortunately, in addition to these original institutional shortcomings, it is also possible to identify a number of false beliefs that have contributed both to the onset and to the continuation of the Eurozone crisis. With respect to **crisis prevention**, the false beliefs in the Eurozone essentially mirror those at the international level. In addition to the false belief that price stability within the Eurozone guaranteed macroeconomic stability there was the pre-crisis belief that current account imbalances need not be of concern to European policy makers. A number of other false beliefs have also misguided Europeans in their efforts at **crisis management,** with policymakers in core countries advocating these views with the greatest vigour. Arguably, worries about "moral hazard" and future imprudent behaviour on the part of peripheral debtor countries have unduly constrained the process of crisis management. Similarly, excessive worries about "contagion" and financial instability have led to forbearance concerning bad loans in the banking system. The result has been the failure of **crisis resolution**. As with the global crisis, it cannot then be ruled out that the worst is yet to come.

B<u>elief 1: Current account imbalances are not a source of concern within an immutable currency union.</u>

Dating from the mid 1990's, well before the introduction of the euro itself, capital flows from the core Eurozone countries into peripheral countries began to increase sharply. Interest rates on sovereign bonds in peripheral countries began to converge towards sovereign rates in core countries until, by the turn of the century, the differentials had almost totally disappeared. This implied that respective debt levels, neither sovereign nor international net foreign liabilities, were playing any role in the determination of relative interest rates[38]. At the same time, current account imbalances began to rise sharply with core countries running large surpluses and the peripheral countries (with Italy an exception) generally running increasingly large deficits.

[38] McCauley and White (1997) noted that the convergence of Italian and Belgian sovereign bond rates towards German rates seemed odd given the much lower government debt ratio in Germany. The willingness of both the markets and the rating agencies to overlook this fact conflicted with prior experience in Canada where provincial bond issues had spreads against the sovereign that were closely related to provincial debt levels.

In spite of these developments, both policymakers in Europe and financial markets seemed to conclude that balance of payments crises could not happen in the new Eurozone. Policymakers often made reference to the absence of such problems in the United States.

Moreover, they were comforted by this belief since they no longer had to debate the contentious issue of the respective role of debtors and creditors in the adjustment process[39]. The absence of concern by participants in financial markets is harder to justify. On the one hand, it might be described as a huge market failure, a shortcoming in particular of risk assessment at banks in Northern Europe who provided much of the financing. On the other hand, some argue that the markets understood the dangers but believed that, in the event of a crisis, they would be bailed out by the government, as indeed they were. Baer (2014) notes some regulatory considerations that might have encouraged such beliefs[40]. If this latter explanation is true, it also implies that that the "no bailout" provisions in the Maastricht Treaty were never taken seriously.

Whatever its origins, we now know that this was a false belief. The analytical failure was simple. While foreign exchange risk within the Eurozone was evidently no longer a problem, everyone failed to appreciate that counterparty risk remained a serious concern. Moreover, the longer that current account imbalances were sustained, the greater the stock of accumulated international indebtedness. In addition, a further effect of the inflows was to allow domestic prices and wages in the peripheral countries to rise significantly faster than in core countries, reducing their competitiveness. Taken together, the implication was that these inflows left the peripheral countries exposed to a "debt-deflation" problem of the type described by Fisher (1933). In effect, introduction of the euro replaced the danger of recurrent small crises associated with currency changes with the danger of a much larger and longer lasting crisis.

This in fact materialized in 2010, with a "sudden stop" in private sector capital inflows to peripheral countries followed by significant outflows. Absent continued external financing for large current account deficits, domestic spending (absorption) would have had to fall massively to reduce imports to the level that could be financed. In these circumstances, public sector support programmes for a number of peripheral countries were organized by the so called Troika[41], significantly alleviating these external liquidity problems. This issue is discussed further below. In spite of this support, all the peripheral countries suffered serious recessions and massive increases in unemployment, especially for younger workers. The resulting fall in domestic absorption, and increased competitiveness in some cases, did have the beneficial effect of reducing the current account deficits of the peripheral countries. However, many commentators suspect this improvement will not be sustained once an economic recovery is under way.[42]

The private sector capital exodus which triggered the crisis was made worse by four other considerations. None of the four have subsequently been addressed in any significant way. Indeed, in many respects these constraints on cross border investments in the Eurozone have grown worse due to policies introduced to manage the crisis.

---

[39] On this issue see James (2012).

[40] For example, the zero risk weighting of sovereign debt under the Basel capital standards, and the equal treatment of sovereign debt used as collateral at the ECB.

[41] The Troika is made up of the European Commission, the ECB and the IMF.

[42] See Sinn (2014) who refers to studies by Goldman Sachs and others.

First, there is the issue of the so called "bank- sovereign nexus". Troubled banks can traditionally turn to their sovereigns for support. Similarly, troubled sovereigns could borrow from their domestic banks. However, the rapidly increasing debts of the peripheral sovereigns eventually began to raise doubts about their capacity to support their banks. At the same time, the purchases of doubtful sovereign debt by domestic banks were increasingly seen as a threat to the bank's own solvency. In effect, what had been the hope of mutual support turned into fears of mutual insolvency. Since the crisis, the holdings by peripheral banks of their own sovereign's debt (as a proportion of total assets) have in fact risen sharply.

Second, creditors who had previously entertained few doubts about their own solvency increasingly began to have such worries. This implied a general tightening of credit conditions, even in creditor countries, but eventually an effective collapse of cross border lending. As is also typical, lenders overreact in both the boom and bust phases of a financial cycle. As will be discussed below, this issue of the adequacy of capital levels for core banks has never been totally resolved. Indeed, successive and successful "stress tests", subsequently followed by disastrous bank failures, have further undermined credibility.

Third, capital repatriation seems to have been actively encouraged by domestic regulators in creditor countries[43]. While this might have seemed prudent and sensible from a purely domestic viewpoint, from the systemic perspective of the Euro area as a whole, it made little sense. Of course, regulators and central banks working at cross purposes is hardly a new phenomenon.

Finally, domestic depositors in peripheral countries began to withdraw deposits from domestic banks, given the absence of euro denominated deposit insurance. This phenomenon was clearly seen in Ireland, Greece and, for a time, in Spain just after the crisis began. Fortunately, these withdrawals never reached significant proportions, not even in the immediate wake of the imposition of losses on depositors[44]in Cyprus and the introduction of capital controls. Nevertheless, concerns about prospective deposit flight remained "the elephant in the room", given the continued unwillingness of core countries to countenance cross border guarantees in the context of Banking Union[45]. By the summer of 2015, deposit withdrawals from Greek banks had risen to the point that a bank holiday had to be declared and capital controls were also imposed in Greece.

<u>Belief 2: In avoiding and managing problems in a currency union, only borrowers need to modify their behaviour</u>

This too is false. Whenever a loan is made there is a lender and a borrower, both of whom might well be acting imprudently. Both the banks themselves and the Eurozone authorities should have been monitoring from the start, not only current account

[43] See Monet et al (2014), in particular Section 4 on "The euro crisis and the recomposition of national ecosystems"

[44] The original Troika proposal to deal with the crisis in the banking system of Cyprus was to force losses on all deposit holders, even small ones. While this proposal was quickly withdrawn, deposit holders in other peripheral countries must at least have become sensitized to their possible future exposure.

[45] Deposit insurance is guaranteed by each national sovereign. The depth of suspicion as to whether these guarantees will be honoured is indicated by a remarkable phenomenon. German depositors can receive significantly higher interest rates by booking deposits at foreign branches of German banks (say in Spain or Italy). There has been no transfer of deposits sufficient to remove these interest rate differentials.

imbalances, but also the character of the real and financial flows associated with those imbalances.

The original expectation was that loans from savings in core countries would finance sustainable and profitable capital deepening in the south. However, far from that, loans were actually being made imprudently for purposes that were simply not sustainable. In Ireland and Spain, foreign money helped finance a housing boom. In Italy and Portugal, the finance allowed the governments to avoid needed structural reforms[46]. In Greece, capital inflows both helped impede structural reforms and contributed to a massive increase in government deficits and debt. Whereas policymakers should have been reacting negatively to these developments, they rather focussed on the associated narrowing of sovereign spreads within the euro area which they interpreted as a sign of the euro's success.

Nor was running a large current account surplus to generate these capital outflows in the best interests of Germany and other surplus countries. First, it implied that living standards in lending countries were lower than they might otherwise have been. Second, because savings could be invested abroad, it implied a lower rate of domestic investment than otherwise. Third, as foreign investments turned sour and the euro rose in value against other currencies, losses in euros had to be accepted by the lenders. Ma and McCauley (2014) suggest that Germany has lost almost one third of the assets accumulated through current account surpluses over the last fifteen years.

Had slower growth in peripheral countries been accompanied by faster growth in the core, this too might have helped avoid the crisis. As Keynes argued at Bretton Woods[47], more symmetry in demand management across countries can play a very useful role in many circumstances. Further, there might have been more symmetry in structural reforms as well[48]. In the process of conducting a single European market, and an "optimal currency area", wages in the core countries should have been encouraged to rise more than they did. As well, deregulating the services sectors in those countries[49] would have increased profit opportunities and reduced the reliance on exports to maintain full employment.

All of these arguments for more policy symmetry across Eurozone countries, to help prevent a balance of payments crisis, should have applied even more strongly in helping to manage the crisis. In fact, new measures were introduced by the European Commission to ensure that all member of the Eurozone were monitoring their current account position. However, the standards applied continued to be asymmetric with deficits constrained at four percent while surpluses could rise to six per cent. Moreover, as the German current account surplus hit seven and a half per cent of GDP in 2014, without strictures from Brussels, a sense emerged that the Commission was becoming more lenient in enforcing the

[46] In Italy, the current account deficit never rose sharply. For many years, the government debt to GDP ratio was also declining steadily.
[47] Steil (2013). In the negotiations leading up to the agreements at Bretton Woods, the US (then the surplus country) advocated a fixed exchange rate system that would help them preserve that surplus.
[48] See Legrain (2014), especially Chapter 8, on why Germany is not a role model for the rest of Europe. He notes that German growth since 2000 has been about the same as France, that both public and private investment have been particularly weak, and that (p265) "Germany's cosy corporatism also privileges insiders, restricts competition and impedes change".
[49] For example, according to the OECD, the regulation of professional services In Germany is stricter than in 22 of the 27 countries covered by their survey.

rules on some countries than others. This was unfortunate since such perceptions help destroy the cross border trust on which the whole euro construction is based.

Looking back, however, it is crucially important to recognize that the absence of symmetry reflected a kind of political game as well. Core countries were not prepared to move until they saw clear evidence that peripheral countries were doing "the right thing". Patently, in the lead up to the crisis, they were not. However, the failure of both Germany and France in the early years of this century to respect the Maastricht criteria for fiscal deficits actively encouraged bad behaviour on the part of others. Since the crisis, most of the peripheral countries have taken painful steps, both fiscal and structural, to improve the functioning of their economies and reduce current account deficits[50]. The stronger these measures become, the greater the argument for a more symmetric response. As well, the greater is the argument for explicit debt reduction as discussed below. Conversely, as shown in 2015 in the case of Greece, the failure of countries to introduce required structural reforms could strengthen the case for intransigence at the core as a bargaining ploy.

<u>Belief 3: Fiscal excess caused the crisis and fiscal austerity is the solution</u>

As emphasized above, the euro zone crisis is was a balance of payments crisis rather than a fiscal crisis. Initially, the fiscal position of countries like Spain and Ireland were significantly better than Germany. It was therefore problematic to demand deep fiscal cuts in peripheral countries in the first place. De Grauwe and Ji (2013) go further in suggesting that the interest rate backup in the peripheral countries was actually induced by the relentless focus in core countries on the need for fiscal restraint everywhere. In effect, everyone was tarred with the Greek brush, when Greece's overall economic performance was actually uniquely bad. Whatever the cause, when the financial markets did finally lose confidence in the debt servicing capacities of peripheral countries, a degree of fiscal austerity became necessary to help restore that confidence.

What is less arguable is that the Troika seriously underestimated the size of the fiscal multipliers associated with restraint[51]. In spite of significant efforts to reduce deficits, economic activity fell away so sharply that debt to GDP levels generally rose rather than fell. Indeed, a recent study by the McKinsey Global Institute (2015) shows (Executive Summary, p2) that of the forty seven countries considered, Greece, Ireland, Portugal and Spain were among the six countries that recorded the largest increases in their debt to GDP ratio between 2007 and 2014Q2. As for suggestions that austerity would quickly restore confidence, investment and growth in the peripheral countries, this has proved to be equally illusory.

Moreover, if the Eurozone crisis was at heart a balance of payments crisis, then reducing the deficits of some countries implies reducing the surpluses of others. From this perspective, it was not appropriate for countries with large trade surpluses, above all Germany, to impose significant fiscal restraint on themselves. Indeed a number of countries

---

[50] Greece continues to be a worrisome exception. While many structural reforms were supported by legislation in the post crisis period, implementation was generally inadequate.

[51] The fiscal multipliers were vastly underestimated, as the IMF itself eventually agreed. The chief economist of the IMF has suggested that this error was due to underestimating the impact of the zero lower bound on interest rates and the fact that many countries were tightening simultaneously. This is likely the case. However, there were also fundamental shortcomings in the forecasting models themselves (no banks, no debt, no confidence factors etc.). Arguably, these played a much bigger role in explaining forecast errors.

took pride in hitting fiscal targets even earlier than domestic legislation demanded. This could not have been helpful to the peripheral countries trying to increase their exports.

Belief 4: Further debt restructuring is not an option

The arguments for explicit, albeit conditional, debt reduction in Greece and potentially other small peripheral sovereigns are quite compelling. First, as noted above, debt levels are very high. In Greece, in spite of write offs in 2012 amounting to almost three quarters of the outstanding debt in private hands, the IMF has recently stated that the "debt sustainability" is not possible without explicit debt relief[52]. Elsewhere, "debt sustainability" conditions demand running very high primary surpluses for many years,[53]even under very optimistic assumptions about economic outcomes. Second, as just noted, fiscal austerity actually seems to have worsened the problem of debt sustainability, and the prospect of outright deflation would make it worse still[54]. Third, structural reforms are also threatened by very high debt levels. Why undertake painful structural reforms if only the creditors benefit through enhanced debt service payments? Finally, the political dimension must be explicitly recognized. If all a country can look forward to is decades of penury, directed by foreigners, it is inevitable that radical parties with better promises will arise and flourish[55]. This would constitute an existential threat to the euro zone itself.

Unfortunately, the arguments against writing down the face value of sovereign debts cannot be easily ignored. First, there is the legitimate concern that debt relief will weaken rather than strengthen the resolve to carry out needed structural reforms. Second, there is the concern that relief granted to one small country might spread to demands for similar treatment for other larger countries. Moreover, in the case of peripheral countries whose sovereign debt remains largely in private hands, fears about prospective debt relief could result in a destructive rise in interest rate spreads. Third, it is argued that debt relief can be provided in a variety of more subtle ways, and indeed already has been[56]. Finally, there is an important political dimension. Ordinary citizens in the core countries seem unalterably imposed to using "yet more" taxpayer money to support peripheral countries[57]. While political leaders could admit that, in fact, public sector funds were largely used to benefit core banks who wished to repatriate funds lent to peripheral countries, this admission would not be likely to contribute to their re-election.

---

[52] With most of Greek sovereign debt now in the hands of the public sector, any future restructuring would be at the explicit cost to taxpayers, largely in core countries.
[53] See OECD (2015)
[54] In the global system, nominal exchange rates can move to facilitate adjustment. While the exchange rate can for a time move in the wrong direction, in the end (likely in the context of a crisis) it will move in the right direction. Within the euro zone, this is not possible. Domestic deflation must then substitute for nominal depreciation.
[55] Friedman (2014) refers to this process as "A Predictable Pathology"
[56] Hidden debt relief can be provided by extending maturities, by charging minimally low interest rates and by deferring interest rate charges. In the case of Greece, for example, debt was 109 percent of GDP in 2008 versus around 175 percent in 2014. Nevertheless, debt service as a percentage of GDP was actually lower in 2014.
[57] In fact, however, much of the public sector funds were actually used to finance outflows of funds by core banks from peripheral countries.

Perhaps conditionality would be the best way to square the circle. Debt forgiveness could follow agreed and implemented policy measures, primarily structural ones. However, this brings us back to the "political game" referred to above. Ordinary citizens in creditor countries clearly have their minds set firmly against such possibilities. It will take significant political courage to suggest such an option. Should politicians nevertheless decide to strike such a bargain, this will only deepen the "democratic deficit" from which the Eurozone already suffers.

Belief 5: The banking system in core countries is healthy and there is no need for explicit bank resolution.

Insistence on this point serves to obscure a fundamental choice made by governments themselves early in the crisis. It was decided not to resolve the crisis by forcing lenders in the core to recognize losses (both sovereign and private), to write them off and then to face the need for recapitalisation or closure. In effect, "bail out" replaced "bail in". Presumably this was due primarily to fears of contagion, and of inadequate fiscal room to support recapitalisation. However, a further consideration is that many of the banks that would have been affected were variously either "national champions", actually owned by the state, or positioned politically to have significant influence over government decisions[58]. Whatever the reasons, it is remarkable how few of the costs of imprudent lending have been borne by the lenders themselves. However compelling at the time, the downsides of this choice are now becoming increasingly evident.

First, by absolving the lenders, this has meant potential losses can only be avoided through debtor adjustment or through taxpayers in creditor countries accepting losses. If the latter is ruled out politically, then austerity in peripheral countries has had to be much more stringent than would otherwise have been the case. Worse, by absolving the lenders, a sharply adversarial approach has been fostered between the citizens of debtor and creditor countries. This is the very opposite of the cross border trust that will be needed to make the difficult, longer run reforms required to ensure the viability of the euro zone over time.

Second, by leaving banks fearful about their own survival, lending in the euro zone has been held back as described above. Moreover, SMEs in peripheral countries have been particularly affected. This is very unfortunate since the economies of virtually all European economies are much more reliant on SMEs than are, say, the economies of the US or the UK. Moreover, given relatively underdeveloped financial markets, again relative to the US and the UK, SMEs reliance on bank financing is also much greater.

Belief 6: Cross border burden sharing must be avoided.

The belief that all debts must be serviced, so that taxpayers in core creditor countries can be sheltered, points to a much more broadly held false belief. The popular perception in core countries is that burden sharing (cross border fiscal transfers) in the Eurozone can

[58] For a fuller examination of these kinds of linkages, see Monet et al (2014). They note that, unlike the US, European banks do not exert their influence through lobbying and the regular transfer (the "revolving door") of senior individuals between the financial industry and the government. In Europe, there are a variety of "formal and informal ties between the political system and the banking system". See also Haring and Douglas (2012), especially Chapter 2 "Money is Power".

and should be avoided. Indeed, this arises directly from Article 125 of the "European Treaty on the Functioning of the European Union" which states that countries should not take on the debts of other countries. The principal motivation appears to have been fear in core Europe of moral hazard. It is alleged that even temporary cross border transfers would induce backsliding on fiscal and structural reforms and transform the Eurozone into a permanent "transfer union". For better or worse, there continues to be considerable debate about how Article 125 should be interpreted. Recent decisions by the European Court of Justice (including on Outright Monetary Transactions by the ECB) imply a greater tolerance for cross border burden sharing than might previously have been supposed. Clarity on this issue is crucial if respect for the "rule of law" is to be maintained.

Yet, burden sharing, in the interests of the system as a whole, would seem to be inherent in the very concept of a currency union[59]. Indeed one important criterion for an optimal currency area is the ability of fiscal transfers to respond to asymmetrical shocks. In the United States, automatic stabilizers linked to a large Federal government budget (in particular unemployment insurance) ensure that this happens automatically. Indeed, this feature is generally considered to be a highly desirable aspect of US fiscal arrangements. Further, the explicit recognition of possible fiscal risks (say the resolution of cross border European banks) and the need for ex ante arrangements for sharing those risks would also seem to have a lot to recommend it[60]. Absent such arrangements, sub optimal arrangements will be negotiated as national officials serve their own national interests. The risks of systemic financial problems might then be increased at great cost to everyone.

This aversion to burden sharing, which runs very deep in core countries, has already had important implications. First, it has led to resistance to the idea of jointly issued or guaranteed sovereign bond issues. Second, banking union began with supervisory reform since it had fewer cost implications than bank resolution[61] and the introduction of deposit insurance. Third, deposit holders in Cyprus, including businesses and their working capital, were forced to take large domestic losses which will inhibit growth going forward. Fourth, the recently announced program of Quantitative Easing (bond buying) by the ECB has been structured so that sovereign risk remains with the national central banks. This will encourage rather than discourage the sovereign-bank nexus referred to earlier.

In spite of this inherent aversion to burden sharing, the crisis has in fact already led to substantial cross border transfers. Many countries have received support packages (not least effective debt relief) in the context of Troika programs. Moreover, a number of facilities have been set up to ensure cross border support for both banks and sovereigns in the future. Finally, when private sector capital flows out of peripheral countries, the TARGET system automatically records an increase in the liability (to the ECB) of the peripheral country and an equal increase in the assets of the country receiving the fund. Broadly put,

---

[59] In an early statement on monetary union, in September 1990, the Bundesbank spoke of the need for full burden sharing under a "solidarity committee". According to David Marsh, the absence of political union implied to the Bundesbank that other means would have to be found to bind the members together.

[60] See Goodhart and Schoenmaker (2009)

[61] Recently agreed bank resolution measures, with "bail in" provisions for losses, apply only to loans made after the bank comes under the supervision of the ECB. Heritage loan losses continue to be the responsibility of the national authorities.

core shareholders at the ECB are already significantly exposed, even if the exact exposure is subject to much debate[62].

Perhaps the fundamental problem is that what has been done to date, constrained by the no burden sharing principle, has simply not been enough. It might be contended that, in addition to resolving Eurozone banking problems, it would have been better to take stronger measures, including more policy symmetry and cross border debt reduction to help the euro zone emerge more quickly from the crisis. The legality of such actions, under Article 25 of the Maastricht Treaty would, of course, have had to be determined ex ante. Whatever the cause, the upshot has been that there has been no effective crisis resolution in the Eurozone and the crisis therefore continues.

Finally, it must be emphasized that increased cross border burden sharing to help resolve this current crisis need not lead to moral hazard and a permanent transfer union. Recall that the crisis had its roots in excessive private sector borrowing rather than fiscal profligacy. Moreover, these flows were a by-product of errors associated with the introduction of the euro, in particular the initial compression of spreads between the core and peripheral countries. By definition the introduction of the euro was a one off event. It will not happen again.

Of course, once the crisis has been resolved, it will be essential to have much more rigorous enforcement of the "rules" than has been the case to date[63]. Moreover, this enforcement should apply equally, and be seen to apply equally, to all members of the euro zone. What will be required is more fiscal disciple, more attention to current account and other imbalances, sounder bank supervision and sound structural reforms[64]. This will help ensure that temporary cross border supports do not turn into permanent transfers. Indeed, albeit belatedly, many such measures are now being introduced into the Eurozone. They constitute part of the broader journey towards fiscal, economic, banking and political union in the Eurozone discussed further below. One important side effect of these institutional developments is that they might in the end lead to a form of burden sharing acceptable to all[65].

<u>Belief 7: Actions taken by the European Central Bank will suffice to maintain confidence in the integrity of the Eurozone</u>

As in many other parts of the world, the European Central Bank responded to the onset of the global crisis with unprecedented measures of monetary expansion. As described in

---

[62] German commentators often leave the impression that the exposure amounts to the full amount of Germany's TARGET surplus. Whelan (2013) suggests (p.2), "the underlying costs to German taxpayers will be far lower".

[63] Even the new Fiscal Compact of 2012 has not been respected. The Compact required that all countries would reduce their debt ratios to 60 percent of GDP, with the speed of convergence each year being 1/20th of the distance to be covered. In fact, the government debt ratios in the crisis countries have all subsequently increased. However, this may have had more to do with negative fiscal multipliers than the absence of fiscal restraint.

[64] Sapir and Wolff (2015) suggest that Europe's institutional apparatus for governance would benefit from the introduction of a Competitiveness Council and a Fiscal Council. Similar suggestions have been made for a variety of countries by the OECD.

[65] On this, see the last Chapter of Sinn (2014) who recommends a US or Swiss type federation for the Eurozone. Note that this combines automatic burden sharing with a "no bailout" policy for sub Federal levels of government.

Section B above, the ECB has become part (albeit reluctantly) of the global effort to maintain price stability and avoid deflation. More specifically, the ECB responded vigorously to the malfunctioning of global financial markets after the bankruptcy of Lehman Brothers. Subsequently, they took many steps to ease monetary conditions, not least a series of LTRO operations, culminating with the announcement of Quantitative Easing early in 2015. Even before its introduction, the euro and longer term interest rates everywhere (except Greece) fell sharply and stock prices soared.

However, in the Eurozone as elsewhere, central bank policies can only "buy time" for governments to do what is required to finally resolve the crisis[66]. At its heart, the crisis has to do with debt and insolvency issues. These problems cannot be resolved by the provision of liquidity by central banks. This simply encourages more debt accumulation of the sort that caused the problems in the first place. Unfortunately, governments everywhere have proved extremely reluctant to do what only they can do. In large part this reflects concerns (the "would" problem) about the political costs of such government actions. A further problem in the Eurozone (the "could" problem) is getting the agreement of the governments in all the member countries to act in appropriate ways and to avoid the temptation of free riding.

If the ECB shares some problems with other central banks, how to avoid deflation, it also faces a problem which is unique. How to maintain investor confidence in the integrity of the euro zone? This confidence was shaken in 2010 by the crisis in Greece and then aggravated by a number of policy missteps, largely based on the false beliefs described above. A crucial and added mistake was the suggestion made publically by Chancellor Merkel and President Sarkozy that it might be no bad thing were Greece to leave the Eurozone[67.] This encouraged speculation that others might leave and even raised questions about the integrity of the European structure as a whole. Discussions in 2015 about a possible "Grexit" have worked in the same direction though, thus far, to a markedly lesser degree than seen earlier.

In the interval, the ECB has paid a crucial role (again "buying time") in maintaining confidence in peripheral countries. The ECB has done this in a variety of ways. First, individual banks from peripheral banks have had direct access to Lender of Last Resort financing, subject to the provision of appropriate collateral. The standards defined for that collateral have, moreover, been declining steadily throughout the crisis period[68]. In addition, banks without adequate collateral can still borrow from their national central banks. Given a guarantee of repayment by the national sovereign, the central bank can then borrow in turn from the ECB. Third, the ECB for a time bought the bonds of peripheral sovereigns in the secondary market, under the Securities Market Program. However, it then chose to curtail these purchases, since they were viewed by some as financing fiscal deficits, a procedure explicitly ruled out by the Maastricht Treaty.

---

[66] Countries with room for fiscal expansion, especially those with large current account surpluses, should use it. Public sector investment, especially in infrastructure, should be encouraged. Systematic debt write-offs, accompanied by measures to recapitalize financial institutions, should be pursued more vigorously. Structural reforms to raise potential growth rates should be carried out.

[67] This was after the infamous "Walk at Deauville".

[68] See Sinn (2014) who notes that the "one state, one vote" principal gives Germany the same weight in decision making at the ECB as Malta. Evidently, a large number of smaller countries have habitually voted for easier lending standards.

Finally, in the summer of 2012, President Draghi of the ECB made a promise “to do whatever it takes”, within the legal mandate, and then added “And trust me, it will be enough”. He then outlined the conditions under which support would be provided by the ECB to peripheral sovereigns. This supposed open ended commitment led to a rapid stabilization of market sentiment with yield spreads falling rapidly. As with the QE program more recently, the benefits were received well before any specific action was taken. Indeed, no action has in fact ever been taken. This is fortunate in that a request for ECB support had to be made by a sovereign that was already receiving support from the EMS. This left open the danger, still extant, that a country under market attack would fail to meet the preconditions for ECB support. If the ECB therefore felt it could not intervene, the whole exercise might be revealed as a sham inviting still more dangerous market speculation.

As time goes on, market attention is likely to shift to the more fundamental reforms required to ensure the integrity of the Eurozone over time. The belief that the ECB can maintain confidence on its own is very likely to fade, particularly if CPI inflation begins to deviate from the ECBs own target[69.] Legal uncertainties as to what the ECB can and cannot legally do will further limit confidence, though recent decisions by the European Court of Justice have not supported the predominant German position opposing recent ECB actions.[70] As well, it must be noted that the market’s renewed willingness to finance peripheral sovereigns at very low rates, after the introduction of OMT, might also have reflected the extraordinarily easy monetary policies being followed at the global level in response to the global crisis. Were rates to back up at the global level, the ECB’s promise “to do whatever it takes” could well be tested. In sum, it is a false belief to assume that ECBs actions alone will suffice to maintain confidence in the integrity of the Eurozone. Much else needs to be done and many risks remain.

Belief 8: Ample time is available for institutional and structural reforms

In June of 2012, a document was circulated by Herman Van Rompuy that finally articulated clearly the need for institutional reforms to improve the governance of the Eurozone. The crisis had shown that the original framework was fundamentally flawed, and would lead to a permanent “transfer union” that no one wanted. Fiscal and financial oversight had to move to the centre, if the Eurozone was to be properly governed.

Van Rompey’s vision implied the need for three sets of institutional reforms to support longer term confidence in the integrity of the Eurozone. First, efforts had to be made to establish a fiscal union, with much stronger rules for domestic fiscal positions and potentially even a much larger centralized budget. Left unstated were prospects for jointly guaranteed euro bond issues. Second, efforts had to be made to establish a banking union, comprising centralized supervision and joint resolution procedures along the lines described above. Third, there would have to be significant steps towards political union, with more sovereignty ceded to central institutions like the European Commission or the European Parliament. If one can trust the argument that a problem recognized is a problem half solved, then acceptance of Von Rompey’s vision constituted a major step forward.

[69] Critics of the ECB contend that its sole concern should be maintaining CPI inflation in the euro zone at under, but close to, 2 percent. This focus on near term price stability seems to ignore the fact that a breakup of the euro zone would likely lead to very unstable prices in many countries. This is discussed further below.
[70] Sinn (2014) especially Chapter 8. For a contrasting view see Munchau (2015).

Yet, implementation of each individual form of union will be very tough in the face of the "should, could, and would" arguments referred to above. The chosen approach to banking union (joint supervision first) could be just a sign of the difficulties to come. Moreover, there are interlinkages between these reforms that will make their implementation even harder. As noted above, how can there be banking union without some form of fiscal union that involves cross border burden sharing? In turn, how can there be fiscal union without a commensurate transfer of political power to ensure the appropriate degree of governance[71]? Distributional issues are, after all, quintessentially political. Harold James[72] has noted that the need for these different forms of "union" was recognized by some as far back as the 1980's. Unable to bring others along with them at the time, those wanting stronger governance processes took comfort in the thought that future difficulties would make further reforms more likely. It still remains a hope and not yet a certainty, a quarter of a century later, that the current crisis will provide sufficient political motivation to complete the process of institutional reform.

A further and equally difficult requirement to support longer term confidence is that the individual members of the Eurozone carry out significant structural reforms. Taken all together, these reforms constitute the pursuit of an "economic union" to go along with the three other "unions" just noted. One reason for wanting this economic union is that national rules and practices in the economic (and financial) spheres still differ widely. After all the decades that have passed since its foundation, the European Union is in fact very far from being a single market with all the benefits it might provide.

Yet, as with the longer run institutional challenges, structural reforms also face challenges from the "should, could and would" problems. Effective structural reforms demand a planning process that sets out economic priorities and an implementation strategy that considers issues of sequencing and timing, especially with respect to legislation. It is also important that reforms are consistent with any need for future fiscal consolidation. Perhaps even more important, successful structural reforms demand broad political support. In gaining such support, national governments must convince the population of the need for change. As well, they must use available carrots (an enhanced status within Europe?) and sticks (failure could lead to chaotic outcomes?) to get the public on their side.

Finally, it is also crucially important that suggested structural reforms are seen as fair, and that vested interests are confronted in the best interests of the country as a whole. Trust in the integrity of national governments is essential in such circumstances to avoid fears of one set of vested interests simply being replaced by another. Unfortunately, in many Euro area countries today, survey evidence indicates that such trust is conspicuous by its absence. The imposition by core countries of "technocratic" governments in a number of the peripheral countries of the Euro area may have had many benefits, but national trust building was likely not one of them.

Cross border trust is also important in pursuing institutional and structural reforms. As noted above, the decision to bail out core banks and allow bigger countries easier terms of surveillance than smaller ones has already eroded that trust to some degree. Developments

[71] Baer (2014) puts it nicely "No taxation without representation"
[72] Harold James (2012)

surrounding the prospective Grexit problem in 2015 also seem to have worsened the cross border trust problem by fostering the view that reforms were being imposed by foreign (essentially German) overlords. In contrast, it is significant that the governments of all the other peripheral countries, who had themselves made difficult internal adjustments, also supported the German bargaining position. This could imply that popular mistrust, rooted in fears of German dominance, are less widespread than some suggest. Alternatively, it could be that the governments of the peripheral countries are simply out of touch with the popular mood of their own people.

Subject to all these constraints, the process of institutional and structural reform has since 2010 proceeded very rapidly by the standards of previous history. Nevertheless, it is still proceeding absolutely slowly. Moreover, progress seems to be moving in fits and starts. Whenever market pressures recede, and yield differentials between core and peripheral countries narrow, both institutional reforms (at the level of the Union as a whole) and structural reforms (in national capitals) slow down. This must throw doubts on the commitment to the final destination, thus inviting further market speculation. As well, the overall timidity of the governments' policy response, likely constrained by fears of burden sharing, has also raised fundamental questions about the political capacity of European policymakers to keep the Eurozone intact[73]. A perception of "timidity" is a further invitation to a loss of confidence and speculative attacks.

Such hesitation and timidity resonates, not only in markets, but also at the level of ordinary citizens. Absent a clear vision of what the Eurozone and the European Union are to become, debate intensifies on the advantages provided by both projects. Radical parties wishing to strengthen national sovereignty, rather than subsume it in a European construct, have in recent years gained ground in most European countries. Whereas radical parties in the peripheral countries feel the core has done too little to support them, radical parties in the core feel the core has already done far too much. In short, it is a false belief to suppose that both financial markets and ordinary citizens will provide ample time for the institutional and structural reforms required to support the Eurozone project.

Given the complexity of the situation, both economic and political, a wide variety of outcomes for the Eurozone are conceivable. They are described below as orderly, disorderly and very disorderly.

The most optimistic possibility, an "orderly outcome", is that the state of market confidence prevailing in 2015 (with the important exception of Greece), continues and strengthens. The European authorities have made a lot of policy changes, indeed many great sacrifices have been made in a number of peripheral countries. This might suffice to attract increasing levels of private sector capital back into peripheral countries as well as to restart bank lending more generally. Ongoing discussions about various longer term reforms might be judged promising in themselves, and indicative of a capacity to produce still more reforms going forward. This orderly outcome might even survive a Greek exit, presuming

[73] Marsh (2013) alludes to the same policy problem when he says (p2) "There is a hole in the heart of the currency. No one is in charge".

that Greece was thought to have "uniquely severe problems" compared to other peripheral countries. Indeed, there are reasonable grounds for believing this to be the case[74].

Unfortunately, a second scenario, a "disorderly outcome" is also possible. The Eurozone area could prove vulnerable to a further lack of confidence that could be triggered by a wide variety of economic or political events. Credit spreads would widen and bank funding become more difficult. This would demand and, by assumption for this scenario, would get a policy response. Should more effective policies then be implemented forcefully, confidence would be more likely to return and the euro area would also be much better placed to sustain confidence going forward. It is of particular importance that the new policies put in place would give hope to peripheral countries for an eventual resolution of their difficulties. Austerity policies that are "more of the same" could temporarily reassure financial markets, but only at the price of growing social and political unrest. This would be a recipe for the "permanent transfer union" that no one wants and that would inevitably explode.

The third possibility is for a "very disorderly outcome" in which countries decide to leave the Euro area. This could be due to a sudden loss of market confidence and the drying up of euro funding needed to pay salaries, pensions and the normal business of government. This would demand an early introduction of an alternative currency which would be fraught with risks[75]. Alternatively, the decision could be the result of a rational evaluation of the costs and the benefits of leaving. Whatever the trigger, there would be a tendency for currency appreciation and deflation in creditor countries and depreciation and potentially high (or even very high) inflation in debtor countries. Some banks would likely fail everywhere, perhaps even in the creditor countries, as debtors failed to meet their debt service obligations. Two versions of this very disorderly outcome can be suggested.

On the one hand, debtor countries could choose to leave. This could well spark contagion, would likely incite hard feelings with creditors, and would also lead to enormous legal uncertainties about the status of debts denominated in euros that countries with new (and depreciating) currencies could no longer service. On the other hand, creditor countries could choose to leave. Historically, when currency unions have broken up, this has often been the route chosen[76]. In a recent article, George Soros has actually called on Germany to "Lead or Leave"[77]. Were creditors to leave, and establish a new currency, this would obviate the legal uncertainties since the debtors would continue to have service obligations in their own currency, the euro. Further, creditor countries would have an incentive to cooperate with the debtors to avoid large exchange rate changes that would increase the creditor's losses. As the English might put it, "It's the best of a bad job". But of course it would be a terribly "bad job" nonetheless.

E. Conclusions

[74] See Acemoglu and Robinson (2012) who emphasize how "extractive" economic and political institutions prevent countries from achieving sustainable growth. Moreover, the introduction of so called democratic processes commonly only transfers the extractive powers from one elite to another. Greece, having been part of the Ottoman Empire for four hundred years, is uniquely badly placed in this regard.

[75] A problem, which has received little attention, is how the payments and settlement systems would work in a country leaving the euro zone. National systems have now been replaced by the fully centralized Target system, which has facilities at the Bundesbank, the Bank of France and the Bank of Italy. An economy simply cannot function without both a medium of exchange and a system for making payments.

[76] See Aslund (2012)

[77] George Soros (2013)

The belief system that says “all is well” because price stability has been maintained is seriously flawed. Preventing excessive disinflation through the expansion of money, credit and debt can lead to a wide range of other problems, whether at the level of the whole global economy or within the Eurozone.

In addition, the International Monetary System has many fundamental shortcomings that threaten global growth prospects. Unfortunately, because of widely held false beliefs about the functioning of the system, these shortcomings are unlikely to be addressed. Had there been an alternative International Monetary System in place that imposed some international discipline on the behaviour of countries (particularly the US but also China, Germany and Japan) the global economy would not have become so seriously unbalanced and exposed to future shocks. Had the “spillover” effects of domestic monetary policies been given greater attention, the same conclusion might be suggested. Reforming the International Monetary System should then be given a much higher priority than it has been.

In this context, an important procedural initiative would be for individual European countries to give up their current status at the IMF (“chairs and shares”) and agree to a reassignment to countries whose influence at the IMF is not commensurate with their economic importance. This would curry a great deal of favour with such countries. Moreover, If European countries were then to merge their “chairs and shares” and speak with a single voice, the influence of Europe within the Fund would be appreciably greater than at the present time.

Similarly, some of the false beliefs held by many policymakers within the Eurozone also need to be reassessed. The onset of the crisis has put paid to the belief that said such a crisis could not happen in a currency union. Yet, other false beliefs have led to the Eurozone crisis being both badly managed and, in the end, left unresolved. There needs to be more symmetry between debtors and creditors in the adjustment process, and less reliance on fiscal austerity. There should be a greater willingness to recognize that some debts, both sovereign and private, have become unserviceable and should be written off. Lenders should be held more accountable for the bad loans they have made in the past, not just those they might make in the future. Burden sharing should be embraced within the Eurozone, subject to legal authority, as well as much more strongly enforced rules about national behaviour likely to contribute to future crises. Finally, it should be recognized that the current calm in financial markets is likely to be temporary. Indeed, actions taken by the ECB that have so far contributed to that calm might also lead to still more disorder over time. Therefore, the longer term structural and institutional reforms required to stabilize the Eurozone should be vigorously pursued.

These prescriptions “should” and “could” be acted upon. Perhaps the greatest danger is that the “would” problem remains insurmountable. Sir Arthur Salter (1933), the UK finance sherpa, addressed a recommendation to Germany’s creditors after World War I (especially the US) when he said “What this apprehensive and defensive world needs now, above all, are the qualities it seems for the moment to have abandoned; courage and magnanimity”. It is ironic that the same words might be addressed to the creditor countries of the Eurozone today. As proved to be the case in Sir Arthur’s time, the costs of failure could be high with implications extending well beyond the realm of economics.

Bibliography

1. Acemoglu D and J A Robinson (2012) “Why Nations Fail” Crown Publishers, New York
2. Aslund A (2012) “Why a Collapse of the Eurozone must be Avoided” Vox, 28 August
3. Atkinson T, D Luttrell and H Rosenblum (2013) “How Bad Was It? The Costs and Consequences of the 2007-2009 Crisis” Staff Paper No 20, Federal Reserve Bank of Dallas, July
4. Atkenson A and P J Kehoe (2004) “Deflation and Depression: Is There an Empirical Link?” American Economic Review, Papers and Proceedings, Vol 94, No 2, May
5. Baer G D (2014) “More Effective Management of the Euro Area” in The Limits of Surveillance and Financial Market Failure” Edited by K Shigahara, Palgrave Macmillan
6. Ball P (2012) “Why Society is a Complex Matter” Springer- Verlag Berlin
7. Bank for International Settlements (2015) “Annual Report” June, Basel
8. Beinhocker E (2006) “The Origins of Wealth” Harvard Business School Press
9. Bernholz P (2006) “Monetary Regimes and Inflation: History, Economic and Political Relationships” Edward Elgar Publishing
10. Borio C (2014) “The International Monetary and Financial System: Its Achilles Heel and What to do About It” BIS Working Paper 456, August, Basel
11. Borio C and Lowe P (2002) “Asset Prices, Financial and Monetary Stability: Exploring the Nexus” BIS Working Paper 114, Basel, July
12. Borio C, M Erdem, A Filardo and B Hofman (2015) “The Costs of Deflation: A Historical Perspective” BIS Quarterly Review, March, Basel
13. Buchanan M (2000) “Ubiquity” Random House, New York
14. Buttiglione L, P R Lane, L Reichlin and V Reinhardt (2014) “Deleveraging? What Deleveraging?” ICMB, Geneva Reports on the World Economy 16, Geneva
15. David P A (2000) “Path Dependence, its Critics and the Quest for Historical Economics “in Evolution and Path Dependence in Economies’: Past and Present Edited by P Garrouste and S Ionnides, Edward Elgar Publishing, Cheltenham, England
16. De Grauwe P and Y Ji (2013) “Panic Driven Austerity in the euro zone and Its Implications” Vox 21 February
17. Dornbusch R (1976) “Expectations and Exchange Rate Dynamics” Journal of Political Economy, Vol 84, Issue 6, December
18. Fisher I (1933) “The Debt Deflation Theory of Great Depressions” Econometrica 1 (4) 1933 pp 337- 357

19. Friedman B M (2014) “A Predictable Pathology” Keynote Address prepared for the BIS Conference on “Debt”, Lucerne, June 26

20. Galati G and Mellick W (2006) “The Evolving Inflation Process” BIS Working Paper 196, Basel, February

21. Goodhart C A E and Schoenmaker D (2010) “Fiscal Burden Sharing in Cross Border Banking Crises” International Journal of Central Banking, 5: 14-165

22. Guigliano F (2015) “Dispiriting Narrative that Shows Devaluation Does not Always Work” Financial Times, 10 March

23. Haldane A (2015) “On Microscopes and Telescopes” Speech given at the Lorentz Centre Workshop on Socio-Economic Complexity”, Leiden, 27 March

24. Haring N and N Douglas (2012) “Economists and the Powerful” Anthem Press, London

25. Hayek F A (1937) “Monetary Nationalism and International Stability” The Graduate Institute of International Studies, Publication No. 18, Geneva

26. Hayek F A (1967) “The Theory of Complex Phenomena” in Studies in Philosophy, Politics and Economics Routledge and Kegan Paul, London

27. Hayek F A (1975) “Full Employment at any Price?” The Institute for Economic Affairs, Occasional Paper 45, London

28. Hoffmann D (2013) “The Poisonous Prescription of Low Interest Rates- Were Banks Rescued at the Expense of the Insurance Industry?” Insurance Economics News Letter, Insurance Economics No 68, The Geneva Association, July

29. James H (2012) “Making the European Monetary Union” Belknap Press, London, England

30. Jorda O, Schularick M and Taylor A M (2014) “Betting the House” Hong Kong Institute for Monetary Research Working paper No 31/2014, Hong Kong

31. Keynes J M (1925) “The Economic Consequences of Mr Churchill”

32. Kindelberger C P and Aliber R Z (2005) “Manias, Panics and Crashes” Palgrave Macmillan, Fifth Edition.

33. Kotlikoff L (2010) “The US is Bankrupt and Doesn’t Even Know It” Bloomberg Business, 10 August

34. Kuhn T (1962) “The Structure of Scientific Revolutions” University of Chicago Press.

35. Legrain P (2014) “European Spring”

36. Ma G and R N McCauley (2013) “Global and Euro Imbalances” In 50 Years of Money and Finance: Lessons and Challenges” Edited by M Balling and E Gnan SUERF, Larcier, Vienna

37. Marsh D (2013) “Europe’s Deadlock” Yale University Press, London

38. McCauley R N and White W R (1997) “The Euro and European Financial Markets” in EMU and the International Monetary System Edited by P R Masson, T H Kreuger and B G Turtelboom, International Monetary Fund, Washington.
39. Mc Kinsey Global Institute (2015) “Debt and (Not Much) Deleveraging” McKinsey and Company, Washington DC
40. Minsky H (2008) “Stabilizing an Unstable Economy” McGraw Hill, New York
41. Monet E, S Pagliari and S Vallée (2014) “Europe between Financial Repression and Regulatory Capture” Bruegel Working Paper 2014/08
42. Munchau W (2015) “The Make Believe World of Eurozone Rules” Financial Times, 27 July
43. Mundell R A (1963) “Capital Mobility and Stabilisation Policy Under Fixed and Flexible Exchange Rates” Canadian Journal of Economics and Political Science 29 (4)
44. OECD (2012) “Economic Outlook” December
45. OECD (2015) “Government Debt and Fiscal Frameworks” Paper prepared for WP1, March, Paris.
46. Padoa-Schioppa T (2010) “The Ghost of Bancor: The Economic Crisis and Global Monetary Disorder” Louvain-la-Neuve 25 February
47. Prasad A S (2014) The Dollar Trap” Princeton University Press
48. Pringle R (2012) “The Money Trap: Escaping the Grip of Global Finance” Palgrave Macmillan, London
49. Reinhart C and Rogoff K S (2009) “This Time is Different: Eight centuries of Financial Folly” Princeton University Press, Princeton NJ
50. Rey H (2013) “Dilemma not Trilemma: The Global Financial Cycle and Monetary Policy Independence” Paper prepared for a Symposium Organized by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August
51. Salter A (1933) “Recovery: the Second Effort” G Bell and Sons, London
52. Sapir A and G Wolff (2015) “Euro Area Governance: What to Reform and How to do it” Breugel Policy Brief 2015/01, February
53. Sargent T J and N Wallace (1981) “Some Unpleasant Monetarist Arithmetic” Reserve Bank of Minneapolis Quarterly Review, Fall, pp 1-17
54. Schularick M and Taylor A M (2009) “Credit Booms Gone Bust: Monetary Policy, Leverage Cycles and Financial Crisis 1870 2008” NBER Working paper Series No 15512, Cambridge Mass.
55. Simpson D (2013) “The Rediscovery of Classical Economics” Edward Elgar, Cheltenham, UK
56. Sinn H-W (2014) “The Euro Trap” Oxford University Press Oxford, UK
57. Soros G (2013) “Why Germany Should Lead or Leave” Project syndicate 8 September

58. Steil B (2013) “The Battle of Bretton Woods” Princeton University Press.

59. Swiss Re (2014) “Financial Repression: Quantifying the Costs” Asset Management Group, Zurich.

60. Taleb N (2008) “The Black Swan” Penguin Books

61. Véron N (2012) “The Challenges of Europe’s Fourfold Union” Bruegel Policy Contribution, Issue 2012/13, August

62. Whelan K (2013) “TARGET2 and Central Bank Balance Sheets” New Draft, University College, Dublin, 17 March

63. White W R (2008) “Globalisation and the Determinants of Domestic Inflation” BIS Working Papers 250, Basel, March

64. White W R (2012) “Ultra Easy Monetary Policy and the Law of Unintended Consequences” Globalisation and Monetary Policy Institute, Federal Reserve Bank of Dallas, Working Paper 126

65. White W R (2013) “What Has Gone Wrong with the Global Economy? Why Were the Warnings Ignored? What Have We learned From the Experience?” OMFIF, Golden lecture Series, London 24 October