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THE FINANCIAL CRISIS: LESSONS AND OUTLOOK

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The recent financial crisis, the consequences of which are still being felt today in the form of little or no growth in various regions around the world, was of a severity unseen since the Second World War. The lessons we can learn from it and the uncertain outlook force us to look back at the causes of the global financial and economic crisis of 2007-2009, and to the idiosyncratic causes of the eurozone crisis. We may then attempt to establish some lessons for the future and consider whether the crisis has actually been resolved or whether it is likely to rear its head once again.

CAUSES OF THE 2007-2009 FINANCIAL CRISIS

First contextual factor: the vital intervention of the Federal Reserve System (the "Fed") of the United States and of other central banks following the major stock market crash of 2000-2003 led to an environment of low rates until 2004. A severe global recession was thus avoided. However, this focus on interest rates did not in fact support the stock market but rather the property market. Via a wealth-creation effect this support enabled the U.S. consumer to become the "consumer of last resort". And so, between late 2003 and early 2004, growth resumed.

Second contextual factor: globalisation can also help to explain the 2007-2009 crisis. This is clearly the result of emerging economies who from the early 2000s were opting for a very different development strategy to that followed previously by the Asian countries, a strategy which had failed with the crisis of 1997-1998. This strategy, based on domestic consumption, had struggled with current account constraints in the face of a very sharp turnaround in the capital markets which had previously been flying a little too high. In 1997 we suddenly found ourselves in the midst of widespread panic, with capital that had been invested short-term in emerging economies in search of higher returns being withdrawn. The emerging economies, those in Asia in particular, learned their lesson and sought an alternative, more favourable, path to development. And so they adopted an export-based model, seeking out demand in developed countries. This choice was entirely legitimate and rationally based on their comparative advantages owing to low labour costs, meaning that they could offer very competitive prices on certain product ranges. This new model was also developed by many and by China in particular on the basis of an undervalued currency, facilitating their exports and thus supporting their growth dynamic. During the 2000s, the production capacity of emerging economies increased sharply, but demand did not keep up. Subsequently, global supply found itself in a position of significant production overcapacity because, while developed countries were seeing their own production in certain product ranges being challenged, they clearly did not reduce their own production levels accordingly.

Global supply of goods and services again found itself superior to demand, a by-product of which was very high levels of global savings, far exceeding investment. This concept was assigned the term *savings glut* by Ben Bernanke, former chairman of the Fed, while he was still a professor.

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Effectively, the emerging economies were piling up savings because they had low consumption levels and increasing revenue. This enabled them to generate substantial savings surpluses that were not sufficiently absorbed by an increase in domestic investment. Interest rates were therefore structurally low because global financing capacity was superior to financing requirements.

At the same time, real wages in developed countries were seeing little or no increase, because the global wage competition in certain sectors of activity and the associated product ranges prevented regular increases in purchasing power. This stagnation once again led to low inflation and very low interest rates.

Third contextual factor: the automatic refinancing of the American current account deficit, as the counterpart of the aforementioned factors. While China, the oil-producing countries and other emerging economies were, as we have seen, expanding their growth through higher exports, with domestic consumption still weak, they were also seeing growing current account balance of payments surpluses. Meanwhile the United States was experiencing increasing deficits in its current account balances. With the exchange rates of emerging economies deliberately kept low, the deficits of the United States were accentuated further. But these were no obstacle for one very simple reason: while the Chinese were accumulating foreign exchange reserves through current account surpluses, they were investing them in the United States. This capital was therefore spontaneously going back to the U.S. and being used to finance the increase in American debt (private, company and public debt). There was a kind of automatic recycling of the surpluses from the emerging economies towards the deficit countries and, primarily, towards the United States. Here again, long-term rates therefore remained very low because the additional American debt was refinanced without difficulty or pressure. And, since early 2004, as growth returned, while the Fed increased its short-term rates quite significantly, up to 5%, long-term rates saw little or no increase. This historic decorrelation between long-term rates and short-term rates was referred to as a conundrum, or enigma, by Greenspan, the then chairman of the Fed: how is it that, while the Fed is significantly increasing its short-term rates, the long-term rates do not rise automatically? The answer was probably not so enigmatic, as we have seen.

The consequence for private borrowers was a situation of debt facilitated by the fact that rates were lower than the nominal growth rate from 2003 to 2007. In a way, it all played out as though the global overproduction borne from unregulated globalisation had been masked by the growth of consumption in developed countries, except that it was based on a progressively unsustainable debt situation, resulting in a genuine situation of over-indebtedness. The overall increase of debt against a backdrop of stagnant purchasing power in the developed countries thus supported, albeit artificially, the levels of growth which otherwise could never have been achieved.

Household debt in the United States in 2000 was equal to 100% of disposal income; by 2007, it had reached 140%. Over the same period, it went from 100% to 170% in Spain and Great Britain, from 55% to 70% in France and from 65% to 85% in the eurozone. The only country where this increase did not occur was Germany: 70% in 2000, and the same in 2007. Corporate debt also increased significantly between 2000 and 2007 in the same countries.

With the return to growth from 2004, borrowers and lenders alike entered a euphoric phase, leaving traditional prudential regulation behind them. Debt levels far surpassed historical averages, and risk premiums were dangerously low, as in any credit bubble. This was the effect of a well-known cognitive bias known as "disaster myopia". What happens is the more we move on from the last big crisis, the more we forget that a new, large-scale crisis could occur, just as we forget the potentially disastrous consequences. The more time passes, the higher the likelihood of the return of a catastrophic crisis. As a result, we gradually accumulate more financial debt, and enter into fragile situations that later will reveal themselves as dangerous when the bubble bursts at the end of the euphoric phase. The banks, but also other lenders, relax their criteria for granting credit, request fewer guarantees and accept lower margins. Selection becomes less rigorous and leverage increases.

Add to that the fact that since the mid-1990s, and even more so in the 2000s, one phenomenon facilitated this debt situation: securitisation. This consists of taking loans from the balance sheets of banks and selling them to investors, who then sold them indirectly to individuals and companies. From 2005, securitisation experienced exponential growth, particularly at American banks. Unregulated securitisation was rife. There was increased securitisation of various kinds of assets, securitisation of already securitised debt, etc. The complexity added to a lack of transparency made it very difficult to assess the true value of these investments. In addition, securitisation allowed certain banks to feel that they held no responsibility for the credit they were approving. In fact, if a bank granted a loan that it then securitised and sold soon after, it could excuse itself from any serious risk analysis of the borrower and any monitoring of the customer account. It is part of the economic role of banks to monitor and advise customers, ensuring that they do not overcommit themselves, whether the customer is a business or an individual. In certain types of bank, what is known as "moral hazard" conduct became common practice, where the banks' own actions produce additional risk for the overall economic system. Lastly, the spreading of securitised packages among investors who were not so well-informed, as well as those who were supposedly informed, led to a general uncertainty over who bore the risk and what where the systemic and other effects of the situation. In the end, the effect of spreading meant that there was no longer any prudential supervision. Traditional economic and financial theory, which assumes that a wide distribution of risk is better and more easily managed than risk concentrated within supervised and licensed banks, has turned out to be completely false. Evermore sophisticated arrangements (CDOs[1], CDOs of CDOs, etc.) have enabled numerous investment banks to rake in increasing income, since they were the ones who performed the financial engineering that made these arrangements possible. In the U.S., securitisation culminated in the development of subprime lending. In many cases, mortgages were offered to people who did not have the income to repay them. These were known as NINJA loans; *no income, no job, no asset.* It all rested on the idea that the property would see a permanent increase in value, and to repay the loan it would suffice to sell the property. Regular household income did not need to be considered. When these securitisations were revealed as problematic, the holders of these securitisation vehicles who were seeking repayment from the debtor found that in some cases the relevant contractual documentation did not even exist. So it wasn't just a case of no income, no job, no asset, but sometimes no document either.

The investors, whether individuals or specialists, had been caught out by a classic cognitive bias: the anchoring effect. Up until the end of the 1980s, long-term interest rates were at very high levels. The 1990s and 2000s saw rates falling, regularly and steeply. Investors believed (this is the anchoring effect) they could achieve rates of return far higher than those being offered to them and which were compatible with the economic growth rate and the rate of inflation. When they were not offered what they considered sufficient rates of return, they did not try to understand how these "abnormal" rates of return had been possible, and hence blindly ignored the level of risk involved in any given investment, such as high debt levels or cascading debt, for example. Some companies agreed to increase their debt level in order to show a rate of return on their shares (ROE - return on equities) that would meet investor expectations, sometimes even resorting to accounting or financial acrobatics.

The period between 2003-2004 and 2007 was therefore a euphoric phase, similar in reality to the euphoric phases of the 19th century or the first half of the 20th century. They consisted of credit bubbles, property bubbles and/or stock market bubbles. In the recent crisis, there was both a property bubble and a credit bubble that were self-sustaining. During all euphoric phases, we grow increasingly blind to disaster and preventative behaviour diminishes over time, thus accelerating the very possibility of a return of the crisis.

To conclude this first section, we have seen that the 2007-2009 crisis is very much a case of history repeating itself, exacerbated by a new factor, in this case, securitisation. The property crisis was like no other, particularly in the United States, the UK and Spain. Simultaneously, we had a debt and leverage crisis, followed naturally by a general phase of debt reduction and deleveraging, which still continues today. If this is anything like similar situations in the past, growth should remain low for some time to come.

Added to which, a major liquidity crisis erupted, intertwined with the property crisis, credit crisis and the debt crisis. In fact, 2008 saw a liquidity crisis of unprecedented force. Faced with the basic uncertainty of who held what and the very content of the securitisation instruments, the interbank market, in particular, completely froze. Had the central banks not intervened so heavily, there would have been no more banks. A very serious liquidity crisis also occurred in 2010-2011 affecting the eurozone banks, but for other reasons (see below).

Poorly regulated financial globalisation, which began in the early 1980s, led to the reappearance and repetition from 1987 of systemic crises all intermingled with the three types of financial crisis mentioned above (speculative market crisis, credit or debt crisis and liquidity crisis).

ANALYSIS OF THE EUROZONE CRISIS

You could be forgiven for thinking that the eurozone crisis was the consequence of the preceding global financial crisis. However we do not believe this to be entirely true. That said, some of the arguments are true: public debt increased after the 2008-2009 crisis because, on the one hand, certain governments contributed money to their banks in order to save them and, on the other hand, some governments, legitimately enough, attempted to combat the collapse of growth through countercyclical fiscal policy.

However, in some European countries, this increased spending only added to a pre-existing downward spiral of public finance deficits. France, for example, has not had a balanced budget since 1974. The effectiveness of fiscal policy and the value of public deficits are well proven, but on one condition: that these deficits are temporary. In other words, when the economic situation improves, the deficits become surpluses. This policy allows for debt when needed, but requires that the debt is repaid when times are better. In reality, permanent deficits undermine fiscal policy because, when public debt levels are too high, fiscal power can no longer be used.

But if the public debt crisis in the eurozone was not simply the consequence of the preceding financial crisis, it is because the same increase in public debt rates, following that of private debt rates, did not pose the same fundamental problems in the United States, Japan, or elsewhere. This was a problem unique to the eurozone. In fact, as a consolidated entity, the eurozone did not have a problem. Its position would even have been slightly better than that of the United States and significantly better than that of Japan. So why did it experience this specific crisis from 2010?

The creation of the eurozone was a very interesting and promising gamble, provided that either it pursued the vital ingredients that were missing, or that it granted entry only to countries experiencing sustainable, strong, economic convergence. There were therefore two schools of thought around the creation of the euro. The first imagined, in line with the creation of Europe from the outset, that economic advances would generate essential political advances. In fact, if a monetary zone incorporates countries that are not all similar in terms of their economic level and development, in order for such a monetary zone to function efficiently in the long-term, it is essential that it maintains the following three attributes:

- coordination of the economic policies of the member countries of the monetary zone;
- a system of fiscal transfers, as in the United States for example, that allows assistance to be given to a state in temporary difficulty, thanks to the existence of a federal budget;
- workforce mobility between different countries in accordance with changes in their economic circumstances, so as not to have a situation of high and long-standing unemployment in those countries experiencing a difficult economic environment.

Under these conditions, the creation of a single currency facilitates both trade within the zone and the stability of expectations of economic players. But above all, the key point is to analyse the current account balance at the borders of the monetary zone and not of each of the member states. This would mean that the growth of a particular state would not be automatically restricted if it is in a more favourable economic position than the others, due to its demography for instance. Whereas if the external constraint applies to the borders of this state, a growth differential would immediately result in a deficit in the current account balance that would sooner or later, in the absence of a devaluation, require a restrictive policy to restore the balance between its imports and exports. This is a good example of what happens between the various states of the United States of America.

The eurozone, unfortunately, does not have any of these attributes:

– with regard to the coordination of economic policies, in Europe, there is no economic government. France is virtually the only country that seems in favour of a European economic government, regardless of which government is in power in France. There is therefore strictly speaking, no established coordination of economic policies that would allow for, as the case may be, recovery in Germany, while the countries of the south were forced to slow down so as to restore their budget and current account balances, thereby reducing the economic and social effects of this slow-down;

– with regard to budgetary transfers, the European budget represents approximately 1% of the GDP of the European Union. The countries and their populations do not feel united and are not accepting of the idea of a transfer necessary for the smooth running of the monetary zone. Obviously, for such transfers to occur, one essential yet insufficient condition is to implement federal supervision of national budgets. In fact, no population can be united if it thinks that this union is without foundation, or even that it may encourage other populations to act without self-discipline, or favour morally hazardous behaviour. But in Europe it is clear, both due to historic reasons and certainly political will, that there is a shortage of any desire to share or the desire for solidarity between nations, facilitated by a feeling of belonging to the same community of interest;

– with regard to workforce mobility in Europe, this is restricted by varying tax and social legislation (including unemployment benefit rules), but also because of language barriers; in the United States, the fact that everyone speaks English facilitates mobility.

Without workforce mobility, without coordination of economic policies, without budgetary transfers and without the possibility of currency devaluation, the sole method of adjustment, in the event of an asymmetric shock between countries of the zone, is for a country in difficulty to find the lowest costing social, economic and regulatory solutions. This policy amounts to internal devaluation, since adjustment through exchange rate movement is no longer possible. If several countries are in the same situation at the same time, this method of regulation and adjustment then leads to a lack of sustainable growth in the zone as well as to medium or long-term social and political difficulties given the continuous obligation to adjust from the bottom up. Internal devaluation can also have a depressive effect since it reduces revenue without reducing debt, in the same way a devaluation would with a foreign currency debt.

This does not mean that in a full monetary union, countries could afford to become lax, or that they may be exempt from structural reforms essential to the pursuit of competitiveness and to the boosting of their growth potential. Full monetary union would not exonerate them from taking steps to address the unsustainable nature of their deficits and public debts. But if we assume that all countries had completed their structural reforms, it would still remain true that a partial monetary union, i.e. one without the attributes listed above, would inevitably lead to deflationary pressures within the union. The eurozone is incomplete and upholds this dangerous bias.

The second school of thought on the creation of the eurozone was based on the assumption that any form of federalism was either undesirable, or unrealistic. The attributes of a complete eurozone were therefore, according to this idea, not possible. The solution thus consisted of ensuring that all participating countries were similar and were in the same economic position. It was necessary also that they respect the convergence criteria (relating to rates of inflation, public deficits and public debt), both at the time of entry into the union and subsequently. By doing so, this school of thought itself made several errors, which have been borne out over time.

The first error was to allow entry into the zone of countries that were neither economically nor structurally convergent, either because they had "organised" their statistics without anyone knowing, or because they did so and people were indeed aware.

The second error was the failure to understand that a monetary union would likely lead to industrial polarisation. By the very definition of a single currency, there is no longer any exchange rate variation between the participating countries. Consequently, companies can opt to produce in only one country of the zone, and profit from the best conditions. These companies no longer need to directly establish themselves in the major countries to avoid suffering from exchange rate fluctuations that could be detrimental to the competitiveness of their factories or production sites. It should also be added that a single monetary policy for countries who are experiencing divergent situations could aggravate this divergence. In Spain for instance, where rates of growth and inflation were higher than in Germany, the interest rate set by the European Central Bank (ECB) for the entire zone was at a lower level than was ideal for Spain, which allowed for pain-free debt and notably stimulated the property bubble. Over a long period of time, the growth rate there was driven ever higher by the increase in both household and corporate debt.

The third error consisted of believing that the markets could be the guardians of orthodoxy of the public finances and of states' current accounts. Instead we have experienced failure of the markets. The financial markets, contrary to traditional theory, are not omniscient. They are not wrong all the time, but they are repeatedly wrong. In this case, with the creation of the eurozone, they believed that the Greek or Spanish current account balances did not need to be supervised as such. So they converged the long-term rates of all the countries of the zone towards the German rate. As a result, there was no warning shot from the markets, no caution about the unsustainable trajectories of certain countries of the zone. The markets did not play their part. If, prior to the onset of the crisis, they had raised alarm bells by increasing long-term interest rates to warn that the risk was increasing due to domestic debt and a current account deficit that was hard to sustain, macrofinancial constraint could have been exercised in advance and avoided the crisis, either in part or in whole. It was only in 2010 that the markets eventually took notice of the growing divergence in the eurozone and its inability to self-regulate.

Both schools of thought had therefore failed. And none of the public authorities within the eurozone had anticipated such a situation, and therefore had no plans for how to handle it. As a result, the Greek crisis was ignored for far too long. Subsequently, once it was recognised as a serious problem, too much time had elapsed, and it was too late.

But above all, due to the absence of the aforementioned attributes that contribute to a full monetary union, we have not seen any viable economic coordination, nor any transfers of public subsidies from better off countries to less well-off countries. Beyond the specific matter of Greece, which had shown little respect for basic rules or good economic sense, the only method of adjustment within the eurozone was therefore revealed to be considerable efforts from each country in difficulty to reduce public spending, increase the tax burden and re-establish competitiveness through devaluation within the zone. In other words, through an overall reduction in costs. These efforts certainly led to a decrease in demand, which in turn rapidly led to a reduction in imports and, as a result, a drastic reduction in the current deficit. But this type of policy, if employed in several countries at the same time, as we have seen, inevitably results in an overall slow-down of growth. And yet tax revenue is a function of growth. We have therefore seen a frenzied dash to reduce public spending combined with a compression of costs and an increase in taxes, alongside reduced tax revenues caused by the slowdown in growth. This observation does not mean that structural reforms were not strictly vital for the countries concerned, since only these reforms were likely to boost growth potential and fundamentally sanitise the situation, shifting from growth driven by debt to growth based on productivity gains, innovation and the mobilisation of the working population. Nevertheless, these structural reforms, in order to be accepted and successful, must be accompanied by a short-term economic policy which is not in itself depressive.

The eurozone, in the face of a lack of institutions enabling regulation, saw the introduction of two vicious circles.

The first vicious circle was that of public debt and interest rates. The domestic competitive devaluation policies and the fall in public spending, as described above, resulted in reduced demand and slower growth, meaning that taxes could not be collected at expected levels and budgetary deficits were therefore not reduced as hoped. As public debt continued to increase, the financial markets increased their distrust in the sustainability of the trajectory of public finances of the countries in question. The long-term interest rates of these countries therefore had to be drastically increased, encouraging a spiralling increase of their public deficits, with the governments having to borrow at increasingly higher cost. The first vicious circle thus came to its inevitable conclusion.

The second vicious circle linked the governments to the banks. European banks in general hold the debts of their own state, but also those of other states within the zone due to the financial integration produced by the creation of the eurozone. When certain states are considered to have a heavy debt burden, the corresponding assets of the banks are considered potentially toxic. And so the vicious circle keeps spinning: the financial markets do not trust the banks in question and lend to them either at higher rates or reduced amounts, thereby making them weaker. The states thus appear further weakened since they are eventually obliged to save their own banks. This weakening leads to further mistrust of these same banks.

We have escaped the clutches of these two vicious circles thanks to two measures. The first measure was taken by Mario Draghi who committed to a huge liquidity distribution programme to the European banks (VLTRO – *very long-term refinancing operations*) and then, in summer 2012 announced that the ECB would buy the public debt of eurozone states if their interest rates were too high and speculatively moving away from their equilibrium ratio (Mario Draghi added: "Whatever it takes.")." By making this announcement, the President of the ECB successfully kept the markets under control, thus allowing the long-term interest rates of the countries in difficulty to return to a more sustainable trajectory, and a level closer to that of nominal economic growth. We must highlight however, that the ECB holds significantly less member state public debt than the Bank of England or the Fed.

The second measure was the introduction of European banking union. This consists of three elements. Firstly, for solidarity to function properly, it must accept supervision at federal level. This is why the supervision of the major European banks has moved from national level to federal level, at the headquarters of the ECB in Frankfurt. Solidarity itself operates on two levels. Once the bail-in rules have been applied, i.e. the bail-out of banks in difficulty by their own shareholders and creditors, a mutual fund may be established between European banks to save a bank that is still suffering from serious difficulties. The second pillar of solidarity: an interbank guarantee fund for customer deposits.

LESSONS AND OUTLOOK

Do we believe that all the fundamental problems of the eurozone have been resolved? Short-term confidence is not inappropriate, largely because the ECB is convincing in its intention to intervene should the situation worsen. Furthermore, in January 2015 it launched a programme of quantitative easing that will mean public debt rates are sustainably maintained at very low levels, with the aim of supporting a return to growth and trying to ensure that the eurozone does not fall into deflation. That said, could all the countries of the eurozone, with some help, manage to recover their position thanks to the time bought for them by Mario Draghi? Many so-called "peripheral" countries of the eurozone have significantly repaired their current account balances. Time seems to be acting in their favour. But if we take a closer look, as we have seen before it is actually the drop in demand that is the key factor. The restructuring of production resources and re-industrialisation, if it happens, will be slow going. The debt reduction of economic players, both private and public, also takes time. The consequences are a very low level of growth for a significant amount of time, with correlated unemployment rates. The questions therefore relate to citizens' patience with regard to these long-term phenomena. The observed rise of populism and an anti-European sentiment is no surprise. Once again, it is not a case of underestimating the strictly essential structural reforms that have been postponed for too long, but of underlining the difficulty of simultaneously and quickly reducing spending and debt in a number of countries.

The eurozone, still incomplete, has not yet found a satisfactory method of regulation. All the factors described above that lead to structurally sluggish growth remain present. But what would happen if growth began to increase in a country that practised austerity without having rebuilt its production resources? Its current account balance would rapidly destabilise once again, with imports growing more rapidly than exports. This imbalance would very soon force it to re-establish slow-down policies so as to avoid being faced once again with the difficult, if not impossible, financing of its current account deficit by the rest of the world.

It therefore seems that, for the eurozone, the solution lies in its completion. Implementation first and foremost of genuine coordination of economic policies would allow for recovery in some areas and slow-down in others, as appropriate, thereby facilitating the fine-tuning of the entire zone. The signing of the European monetary union treaty (TSCG – treaty on stability, coordination and governance) does not address this possibility, despite its title. It is therefore necessary to extend the treaty and to give it its intended force.

An organised and conditional transfer of public revenue between eurozone countries, i.e. an agreed partial sharing of public levies, as in the United States – from those states that are doing well to those experiencing temporary difficulty – would also be an essential element of the system. A community loan to, for example, fund investments in the eurozone as a whole and for which the member states would be jointly liable would serve this purpose. But it is very unlikely that this will occur at the current stage of European integration, since it would mean a genuine degree of federalism.

And this is where we encounter the root causes of why the single currency is not complete: the absence of a true federal level, with a federal government and federal-level debt. This absence is clearly due to the existence of national sovereignty and the non-existence of European sovereignty, in conjunction with European citizens' lack of sense of belonging to the same community. The historic construction of the continent did not create the United States of Europe. It is also essential to believe that palliative arrangements are feasible, without expecting an unlikely federalism to emerge in the short or medium-term.

A funding mechanism for the current account deficits of some by the current account surpluses of others should thus be established, with an *a priori* commitment by deficit countries to repay their debts. Without risk of a market crisis this mechanism would allow the financing of one state's current account deficits by the surpluses of others; as such it would mean that external constraints were felt only at the borders of the eurozone. This would be a powerful driver of growth in the zone, because any one country requiring more growth than another, for adjustment or demographic reasons for example, would not be forced into adjusting its activity in line with those countries who do not have this necessity[2].

But even mechanisms such as these, in the absence of the sense of shared community interest, require strict conditions for application. As with intrazone funding mechanisms, transfers require fiscal policies to be supervised by a democratically elected body that acts as a representative for the countries that make up the said economic and monetary area. It is not possible to have solidarity without both *a priori* and *a posteriori* supervision. Mutual confidence is required in order for a policy and practice such as this to be established. To establish integration, reassurance is required that unacceptable behaviour and moral hazards cannot occur. This is much the case today, provided that certain, and in some cases substantial, improvements are made. The TSCG, which entered into force in 2013, requires the budget of each country to be in balance or in surplus, with a structural deficit no more than 0.5% or 1% depending on its debt-to-GDP ratio, and specifies an adjustment path should these be exceeded. Non-compliance will be fined.

But this is not sufficient. It is equally vital that these transfer or funding mechanisms organised *ex ante*, and not just during the crisis, are themselves conditionally activated. In the spirit of the above, it is not feasible to imagine that countries are going to finance, subsidise even, other nations that may experience a sustainable increase in spending compared to their revenue, i.e. a permanent current account deficit, and are not able to meet the structural deficit rules outlined above. Furthermore, within countries of non-homogenous national communities, such tension may exist between different regions officially belonging to the same national framework (Italy, Belgium, etc.). It is therefore essential that the said transfers or funding mechanisms are conditional, for some countries, on policies or structural reforms allowing for an increase of their potential growth level. These policies are listed in detail elsewhere and are not austerity policies: labour market reform, pension system reform, reform of public systems to ensure efficiency of costs in relation to quality attained...

Lastly, a monetary zone naturally leads to industrial polarisation, as mentioned above. If we do not ultimately want to see entire regions of the eurozone be permanently dependent upon the transfers of others, it is likely that, aside from the structural policies to be implemented nationally, a truly modern and motivating industrial policy will be essential at supranational level, such that clusters of competitiveness may form and be maintained in all the major regions of the zone. These clusters would allow all countries to benefit from competitive and exportable industries and services, and would ensure a minimum level of attractiveness for the various regions.

Because the European countries do not constitute a nation, some believe that the necessary sense of belonging to the same community will always be lacking in order to forge the acceptance of solidarity, even if the strict conditions above are met. If this is true, there would be no option but to turn back on European integration and wipe from history the mistake in such a scenario of the birth of the eurozone and, at best and where possible, to imagine a different, more realistic, configuration. This argument, albeit unappetising, must not be dismissed, for we have seen for some years now certain populations being forced into austerity and emerging politically as potentially dangerous and radical, Greece being a paroxysmal example. Similarly, we are also seeing so-called "Northern" populations dismissing any idea of having to fund *ad vitam aeternam* the so-called "Southern" countries, purported to be not quite as industrious as themselves.

Which is why the modest suggestions made here should be considered without delay and in depth, in order to avoid both the unrealism of the construction of the United States of Europe and the self-dissipation of what has been created thus far. As we have already seen, the temptation of mandatory intrazone homogeneity, through uniform technical rules, has already demonstrated the extreme difficulties it would cause.

Various recently introduced factors (actions of the ECB, European banking union, ESM – European Stability Mechanism – TSCG, etc.) already mentioned constitute steps in the right direction, but for the most part have not been seen through to completion. Even in combination, they do not form a satisfactory structure. It therefore remains, where applicable, to identify those countries likely to participate in an updated eurozone, based on the acceptance of a method of regulation such as the one presented here, and to clarify the mechanisms and institutions specific to such a monetary zone as opposed to those that apply to the European Union as a whole.

In conclusion, will we see more financial crises? Our opinion is that they are inevitable in the world as it stands today. On one hand, because finance is intrinsically unstable. For the last thirty years we have experienced financial cycles in which euphoric phases are followed by credit bubbles, affecting the price of capital assets – shares and property in particular – followed by depressive phases and the bursting of the very same bubbles. Leading to serious liquidity crises, these depressive phases can result in major financial crises. Financial and banking regulation is therefore absolutely essential. But assuming that this is fully effective, it would probably just bridge the gap between the highs and the lows, but not eliminate the sequence of phases.

On the other hand, prudential regulations themselves are not free from error. They often try to put right the causes of the previous crisis but underestimate the potential causes of future crises. Lastly, certain excessive or poorly judged regulations could themselves even increase the cyclical nature of finance, or even contribute to the next crises.

In our opinion it is both possible and necessary to alleviate financial instability with the right measures and good regulation, especially macroprudential regulation, but it is misleading to pretend that we can eliminate it. Similarly, banking regulation is absolutely essential, but it would be dangerous to try to reduce the level of risk that they take, since their economic and social usefulness resides in the fact that they do take risks – with credit, with interest rates, liquidity, etc. – and that they manage these risks professionally and under supervision. It would no doubt cause greater instability should these risks be pushed outside the realm of banks, into shadow banking or hedge funds over which there is little or no control or, by means of securitisation, onto the companies and households that are not equipped to manage them.

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[1] A CDO (collateralized debt obligation) is a securitisation vehicle.

[2] The recent option for the ECB to buy government securities, as with the European Stability Mechanism (ESM), an international financial institution which became operational in 2013 for the granting of loans to countries in difficulty, are both pointing in the right direction, however their ability to be of manifest use in good time remains unclear.