SUMMARY

The magnitude of the crisis caught Western economies off guard, where, despite the large global imbalances that were accruing, a buoyant macroeconomic context prevailed. In the United States, the boom was sustained by an asset bubble and a very low savings rate, which led to the accumulation of trade deficits financed by China and raw materials suppliers. Europe was experiencing a moderate recovery from a period of low growth and was in the middle of painful attempts to reform its welfare state and its rigid labour markets, to address its endangered public finances and its disappointing long-term growth performance. The crisis has put these adjustments on hold as all governments have implemented massive fiscal and monetary stimulus packages. As a result the world economy may emerge from the crisis with the same unresolved imbalances and structural problems that prevailed before the crisis, aggravated by the massive accumulation of government debt in response to the crisis.

This year's EEAG Report addresses the challenges for the developed world to exit the crisis without compromising its long-term prospects.

In addition to the traditional chapter discussing the immediate macroeconomic outlook, we document the adverse effects the crisis had on trust in financial markets. This factor will help determine whether the world economy can be rebuilt on a more stable foundation; indeed we document that the crisis has had substantial adverse consequences on the level of trust, which leaves us in doubt as to whether the financial sector will be able to resume its activity at the pre-crisis level. Chapter 3 discusses the consequences of the large deficits of major developed countries for the sustainability of public finances in the long run. Chapter 4 discusses the impact of the crisis on the long-term sustainability of the US economy in terms of government accounts and the external balance. The crisis has worsened the problems already existing in both areas. Chapter 5 discusses the impact of the crisis on the euro area. We argue that the euro has shielded member countries from severe balance of payment crises. On the other hand, the euro area faces tough challenges at its periphery as candidate countries face looming balance of payment crises, while developments in Greece suggest that the credibility premium of membership is conditional on sound economic policies.

Chapter 1: Macroeconomic outlook

After the deep economic recession during the winter of 2008/2009 triggered by a US-led financial crisis, many countries went through a stabilisation period and now seem to have entered a recovery phase. Global monetary and fiscal policies have prevented an even worse outcome and have helped bring about the current recovery. This has been reinforced by a positive inventory cycle.

However, we expect a number of factors to dampen the recovery in the developed world. First, the restructuring process within the banking sector is far from complete. Credit constraints may grow tighter during the recovery as an increased demand for funds may come up against banks' reluctance to extend loans. Second, capacity utilisation is low, and investment will not pick up until this margin of slack has been reduced. Third, the labour market situation will not only remain tense, but will slightly deteriorate further – dampening private consumption. Finally, fiscal policy stimulus cannot be prolonged in face of a quickly deteriorating fiscal balance.

Economic conditions will be more favourable in emerging economies, which we expect to become the growth engines for the world economy.

After having experienced a decline unprecedented since World War II — by minus 2.3 percent last year – we expect world GDP to increase by 2.3 in 2010. Hence, world economic growth will stay below potential. Inflation will accelerate somewhat but also stay well below its long-term average.

In the *United States* the deepest recession since World War II has come to an end. GDP in 2009 ended up

2.6 percent lower than in 2008. Private consumption overall fell by 0.6 percent in 2009, whereas the private saving rate has been steadily increasing. The strongest negative growth contribution last year came from investment. The domestic problems led to a sharp fall in the demand for foreign goods and services over the year. The decline in exports, on the other hand, was clearly less pronounced. Consequently, the US trade balance was able to improve substantially, thus contributing to a reduction in global imbalances. After approximately three years, real-estate prices stopped falling in mid-2009. To a large extent, this development can be traced back to the massive subsidies and tax reliefs granted by the US government. Only when state support runs out, however, will it be possible to judge whether the real-estate market recovery is sustainable.

Although the recession has ended, the US economy still has to remedy its structural problems. US consumers have been living beyond their means for too long. To allow for a way back to sustainable growth, US consumers are in a process of curtailing their consumption. This process has already set in but needs to continue during our forecasting horizon. Furthermore, although the worse seems to be over for the banking industry, a continuation of write-offs is highly likely and government intervention in the banking and real estate sectors will consequently remain high. On top of that, fiscal sustainability is an issue that will stay on the agenda for years to come.

After having been hit the hardest amongst the large economies in the world during winter 2008/2009, the economic recovery in *Japan* set in already in the second quarter of last year. The most important drivers for the mild recovery were foreign trade and private consumption. However, this will not prevent the annual growth rate for 2009 from falling to – 5.3 percent. Japan will continue its recovery in the short run, but its medium term prospects are rather bleak. Exports will remain the main driver of growth this and next year. The Japanese export economy benefits from its geographical proximity to Asian emerging markets, which are experiencing a surge in domestic demand.

Over the summer *China* was able to recover to nearly pre-crisis growth levels. To a large extent this was caused by a strong increase in investment activity initiated by huge fiscal and monetary stimulus programmes of the government. The short-term economic prospects for China remain quite positive. This can be attributed especially to government policy, which succeeded – with a massive stimulus programme – in strengthening its economy without relying on outside impulses. The programme is scheduled to expire by the middle of this year and will not be fully offset thereafter by impulses from the rest of the world. From a structural perspective, economic policy is increasingly putting a burden on the Chinese economy by aggravating unbalanced economic developments. In recent years gross capital formation has accounted for 40 percent of GDP, against only 35 percent from private consumption. In a typical developed country, these figures are around 20 percent and 65 percent, respectively. With its clear focus on investment activity in large, often state-controlled, enterprises, the stimulus package will raise the share of investment further. In the medium term, many of these investments may prove to be misdirected and unprofitable, and may lead to overcapacities in some sectors.

With the sole exception of Poland, all *European Union* member countries went through a deep recession last year. A comparison of the peak in the first quarter of 2008 with the trough in the second quarter of 2009 reveals that the European Union – and with it the euro area – contracted by 5.1 percent over a period of five quarters. The three Baltic States – Estonia, Latvia and Lithuania – were especially hard hit by the economic crisis and saw their GDP drop by approximately 20 percent.

Although the decline in private consumption and investment continued, the European Union started to recover during the second half of 2009. Of the western and southern European member countries, only Cyprus, Greece, Spain and the United Kingdom were still in recession in the third quarter of last year. Similar to the US's, the European recovery is fragile. Although the prospects of firms have improved, problems within the banking sector remain. This is likely to lead to a more restrictive credit supply which, together with continued underutilisation of production factors, will prevent a strong recovery of investment. Furthermore, worsening labour market conditions, small wage increases and somewhat higher inflation will lead to a reduction in real disposable income, thereby reducing consumption growth. Finally, we also expect fiscal stimulus to be transitory, as in the US. Hence, according to our forecasts, after having sunk by 4.0 percent last year, GDP growth will rise to 1.0 percent this year.

Mainly as a consequence of the drop in oil prices, inflation rates in the European Union fell until summer last year. The increase in prices will accelerate somewhat on the whole, but – given low capacity utilisation rates and stable inflation expectations – remain restrained. The increase in consumer prices will be 1.2 percent in the European Union in 2009 (after 0.7 percent in 2008). In the euro area, the inflation rate will equal 0.9 percent in 2010 (after 0.3 percent last year). The increased indebtedness of European governments, caused by large fiscal stimulus programmes, together with slowly rising interest rates will raise the debt burden. Government interest expenses are certain to rise in the years to come and crowd out other types of government spending. This is already a good reason for governments to prepare and communicate exit and consolidation strategies to return to sound and sustainable public finances again. More importantly, such strategies are needed to strengthen overall macroeconomic stability and to guarantee that any future crisis can again be relieved by appropriate fiscal policy measures.

To summarise, our assessment of the macroeconomic outlook is that while policy has been successful in preventing a new great depression and a deflationary spiral, the recovery remains fragile and future growth prospects are clouded by structural problems. Many of these structural problems were present before the crisis, but some new structural problems may have been spawned by the crisis itself, especially in the financial sector. Chapter 2 of this report discusses one of them, namely the collapse of trust.

Chapter 2: A trust-driven financial crisis

A key ingredient in understanding the financial crisis is a dramatic drop in trust towards financial intermediaries, bankers and financial markets. While many conventional factors have contributed to the emergence and propagation of the financial crisis, they alone cannot fully explain the sudden collapse in economic activity that took place after October 2008.

We argue that starting in summer 2008 something very important was destroyed: the trust that intermediaries have in each other and that investors have in the financial industry. Trust – the belief a person has that a counterpart in a transaction will not take advantage of him – while normally ignored in standard economic analysis, is crucial in many transactions and certainly in those involving financial exchanges. When trust is missing, financing disappears and economic activity suddenly stops. This is what happened in October 2008 and the subsequent months. The data show that the percentage of people that reported having full trust in banks, brokers, mutual funds or the stock market, which was as high as 40 percent in the late 1970s and around 30 percent just before the crisis hit, dropped to 5 percent and has not recovered since. Similarly, we find that for the first time since the data on trust exist, self-reported trust in banks and bankers has fallen below the trust people have in other, randomly selected, people.

This marked fall in trust was largely provoked by the revelation of the opportunistic behaviour that the unfolding of the crisis brought to light, of which the Bernard Madoff fraud is emblematic, and has contributed to casting a dark light on the whole financial industry. Indeed, we show that in states where the number of victims of the Madoff fraud was higher, the level of trust towards banks, bankers, brokers and mutual funds has fallen more than in states with a lower concentration of Madoff victims. The destruction of trust inherited from the crisis has important implications for the future of financial markets, including the demand for financial products and investors' portfolio choices. Most likely it will result in:

- A drop in investments in risky assets. Such assets lend themselves more easily to opportunistic behaviour than simpler securities. Thus, portfolios will likely be twisted markedly towards safer securities and away from stocks.
- A drop in the demand for complex financial instruments with ambiguous returns. These are assets that are more exposed to the risk of fraud and consequently more easily placed among high-trust investors. When trust dwindles the demand for these instruments declines and investors revert to "familiar" instruments
- Less diversified portfolios and a greater share of domestic assets, the latter being perceived as more familiar and trustworthy. On the other hand, investors will entertain relations with multiple intermediaries in order to diversify the risk of opportunistic behaviour by reducing exposure to each one of them. Both effects are costly: the first because one loses the benefits of diversification, the second because of the cost of setting and maintaining multiple relations.
- Less reliance on and delegation to intermediaries. Our evidence shows that a fundamental ingredient

in the intensity of financial delegation is the level of investors' trust. Since delegation is all the more necessary the more one invests in sophisticated securities, also through this channel there should be a move towards simpler portfolios.
- Finally, since an insurance contract is itself a financial contract and as such is prone to the opportunistic behaviour of the insurance company, the fall in trust should also affect the demand for insurance.

To sum up, the fall in trust towards all segments of the financial industry will give rise to a generalised flight from financial trades, particularly those that are severely exposed to opportunistic behaviour.

Insofar as it results in a shift towards safer assets, it will push up the equity premium and make equity financing more expensive. This may have consequences for fast-growing and innovative firms that depend more heavily on this type of financing. Similarly, if the increased mistrust results in a preference for instruments with shorter maturity, it will raise the cost of long-term financing, hampering projects with high yields but longer maturities. Because of this it is important to understand how trust in financial markets and intermediaries can be rebuilt. The chapter examines two avenues: The first relies on enhanced regulation; the second on a reaction by the industry.

The regulatory approach, so far the only one that has been followed to rebuild trust, is to raise the strength of financial regulation. This approach has been the subject of several of the recent G20 meetings and of the proposals that are being discussed at the Financial Stability Board. Many of the proposals that are under scrutiny go beyond the purpose of rebuilding trust and will most likely affect the perceived *solvency* of the intermediaries, to lower the chance of future crisis. But these measures are likely to have little impact on trust.

From the viewpoint of the regulation of investors' relations with financial intermediaries, the most relevant proposal that can help recover trust is the creation of the consumer protection agency proposed by the Obama administration. The agency would oversee consumer financial products, which have been regulated in the past but whose oversight was exposed as lax. One may also mention the creation in the US of a Financial Fraud Enforcement task force to combat financial crimes.

Because these initiatives are both specifically aimed at protecting investors from abuses they may actually contribute to rebuilding trust. But there are also reasons to believe that by themselves these interventions may have limited impact.

The alternative strategy to rebuild trust relies on the idea that losing investors' trust is very costly for the financial industry. If it is costly, intermediaries could be expected to have strong incentives to take actions to re-build *their* reputation and re-gain the trust of their customers. Unfortunately there are no easy recipes on how A may convince B to reconsider his opinion about the trustworthiness of A. The chapter examines three possible mechanisms.

- A rating system that even the most (financially) illiterate investor can understand. It consists of rating intermediaries on their ability to offer trustworthy services and to limit incentives to exploit conflicts of interest at the expense of the investor. The rating system, offered in an easily understandable metric (e.g., a number from 0 to 10), would allow all investors to distinguish intermediaries on the basis of their integrity, thus reducing the scope for opportunistic behaviour. It would de facto provide intermediaries with incentives to raise their trustworthiness by transferring punishment power to the investors.
- A trust-based compensation scheme. A second, more direct mechanism to rebuild trust is to provide incentives to build it. If the compensation of the investor's manager depends on the level of trust investors have in their asset manager, the latter have strong incentives to behave in a trustworthy manner and this, perhaps slowly, will raise the investors' trust and their willingness to invest.
- Promoting investors' financial education. A third strategy is to take actions that promote the financial education of the investors – for instance by lobbying the government to have financial education taught at (public) school, making financial education material, certified by third parties, available to investors, and other such measures. An intermediary that promotes financial education signals its intention to be willing to deal with experienced and sophisticated investors, with enough nous not to fall victim of financial abuses and distorted advice. This should contribute to improving investors' trust.

Needless to say, investment in financial education pays off in the very long run; however the returns to

the intermediary in terms of increased trustworthiness may be more immediate if the intermediary's commitment to transfer power to the investor through this channel is credible. Credibility would be enhanced if the sponsoring of financial education programmes is part of a broader policy aimed at limiting intermediaries' incentives to deceive investors, such as the trust-based compensation scheme and the bank fairness index.

All the above measures endeavour, from different angles, to limit the scope for intermediaries' opportunist behaviour. In each case, the policy is not imposed; adhering to it is left to the discretion of the intermediary. However, we argue, there is no automatic mechanism that guarantees that intermediaries will agree to adopt these policies voluntarily. Rather, if dishonest behaviour is dominant among intermediaries, even the honest ones may be unwilling to adopt these measures on their own and help the economy move to a better outcome where competition drives out dishonest behaviour. We also argue that regulation by itself, without the involvement of the intermediaries, may fail to restore trust. However, regulatory agencies may play a very important role in coordinating the selection of the "honest" equilibrium. For instance, using moral suasion to persuade even a small but important number of intermediaries to "play the honest game" may be enough to trigger a response of the same type by the dishonest ones and move the whole industry equilibrium.

The next chapter discusses long-run issues associated with the substantial increase in public debt that is currently taking place in most developed countries.

Chapter 3: From Fiscal Rescue to Global Debt

In just over a year, the world has moved from a consensus that the financial and economic crisis necessitated a large and co-ordinated fiscal stimulus to serious concerns about the size of the public debt.

There was certainly a consensus at the end of 2008 that a fiscal stimulus package was needed. The IMF argued that the "optimal fiscal package should be timely, large, lasting, diversified, contingent, collective and sustainable". The European Council of the EU agreed a "European Economic Recovery Programme" (EERP) in December 2008, which called for a discretionary fiscal stimulus of at least 1.5 percent of GDP. And in April 2009, the G20 stated: "We are undertaking an unprecedented and concerted fiscal expansion, which will save or create millions of jobs which would otherwise have been destroyed."

And there have certainly been large increases in public deficits throughout the EU – and elsewhere – leading to considerable rises in the stock of outstanding public debt as a percentage of GDP. In 2009, the total deficit in the EU was around 6-7 percent of GDP, and it is expected to rise further in 2010. There has been a corresponding increase in outstanding debt, rising to around 72 percent of GDP in 2009, with further increases certain in 2010 and beyond.

However, there are wide variations across countries, both in the size of the deficits in 2009 and 2010, and in the level of outstanding debt. For example, the UK, Ireland and Latvia have particularly high deficits, though in all three cases their outstanding debt is relatively moderate as a proportion of GDP. Italy, Greece and Belgium have much higher outstanding debt, because all three have had high deficits for several years.

These high deficits have generally not reflected discretionary changes by EU governments. While most governments introduced a discretionary fiscal stimulus in 2008 and 2009, these were small relative to the overall deficits. The form of these discretionary changes (and even their sign) has varied considerably between countries.

There is some empirical evidence that a fiscal stimulus has a positive effect on output, although there are many problems in measuring the effect, so that the size of the fiscal multiplier is not known with any certainty. In any case, there is little reason to suppose that effects estimated on historic data are likely to be valid in the midst of a recession. This is particularly the case when interest rates are effectively at zero, and the economy is shaken by an ongoing financial and economic crisis, when there may be very large multipliers for government spending. Indeed, recent theoretical and empirical work suggests that spending expansions and tax cuts supporting current demand may be quite valuable under such circumstances.

The scope for reducing deficits depends crucially on the rate of economic growth achieved over the next few years, and the degree to which real public spending can be curtailed. For example, a simple calculation suggests that if spending is kept constant in real terms

throughout the EU, then economic growth of around 2 percent would see the aggregate EU deficit reduced to zero by around 2017, with outstanding debt reaching a peak of around 100 percent of GDP. Of course, some countries would need a higher growth rate to achieve fiscal balance within this period.

There are costs to maintaining high debt levels, though these should not be blown out of proportion. Especially at low interest rates, the cost of servicing debt is of the order of 3 percent of GDP, though again there is considerable variation across member states. Two factors could increase this cost in the short to medium term. First, interest rates are likely to rise. Second, public debt appears increasingly risky to the market, which implies that higher risk premia could be charged.

Although these risk premia are currently not large for most countries, they may grow in the near future, reflecting doubts about debt sustainability – recent developments in Greece suggest such a possibility is not so remote. Governments must therefore define credible strategies to reduce deficits over the medium term.

A key concern with designing such strategies is that anticipation of future tax rises and/or spending cuts may hamper the economy immediately, as individuals perceive their lifetime income to be lower, and firms anticipate a contraction in demand. This need not be the case. On the contrary, there are ways to design debt consolidation strategies that actually support current stimuli.

One way of reconciling the need for a credible deficit-reduction strategy with the need to avoid harming a fragile economy is to announce rises in taxes on spending – such as VAT – to take effect from some future period, say in one year's time. This would induce individuals to bring spending forward, which would provide a temporary stimulus to the economy.

Another way consists of announcing well-designed measures bringing government spending on goods and services below trend, to be implemented sufficiently far in the future as to avoid the risk of exposing the economy to additional deflationary pressures when policy interest rates are still close to zero. Provided that they are not implemented too early, future spending cuts are beneficial to the recovery, as they contain the rise in long-term interest rates (as well as attenuating concerns about debt sustainability).

A final point concerns coordination. The attempts to stimulate the economy benefited from coordination efforts. For an individual country, a stimulus to spending might be largely reflected in increased imports, creating demand for goods and services produced elsewhere. A coordinated policy reduces this risk. In principle, the same argument also applies (with a different sign) to fiscal adjustment. If all countries implemented a contractionary fiscal adjustment simultaneously and independently, without internalising negative output spillovers abroad, this would be likely to hamper the economic recovery. This adverse effect would be reduced if such policies were introduced in a coordinated way, possibly leading to more gradualism.

However, coordinated gradualism should not interfere with the adoption of measures necessary to preserve stability. The worst-hit countries or the countries with the most fragile public finances should adjust upfront and most deeply, to prevent the spreading of concerns about fiscal sustainability. If gradualism in the name of coordination feeds doubts about debt consolidation, then no coordination is a much better option.

Among all developed countries, the country subjected to the largest imbalances not only in terms of public finances but also in terms of its external position is the United States. Chapter 4 discusses the issues associated with US adjustment.

Chapter 4: US adjustment needs

Given the size of US fiscal and external deficits, a central question is whether the US economy is on a sustainable path and to what extent the answer to this question has changed during the recent macro-financial crises.

We first note that a current account deficit does not necessarily have to be reversed in order to guarantee sustainability. In principle, the same is true for a fiscal deficit. This depends on how large the economy's growth rate is relative to the interest rate on its debt. If the growth rate is larger than the interest rate, the size of the debt relative to GDP shrinks by more than the increase in debt due to additional interest.

Before the financial crisis, the forecast for the coming decade implied clear improvement in the US fiscal balance. The projections of the Congressional Budget Office made just before the crisis implied deficits would move into surpluses and debt to GDP ratios would fall from 2013. However, the longer run forecasts were already much less rosy before the crisis. Due to aging and increased costs in health care, the federal governments spending on Medicare, Medicaid and Social Security were forecasted to grow at an accelerating speed, implying a glaring and alarming inconsistency between government outlays and the electorates' willingness to pay.

The CBO forecasts changed dramatically during the macro-financial crisis of 2009. In August 2009, the forecast was that the US government debt would increase very rapidly. The increasing trend in the debt as a share of GDP during the 1980s is back and perhaps even stronger than before.

Half way into 2009, the forecast had changed to an unprecedented deficit of 11.2 percent. This is almost twice as large as the previous record deficit of 6.0 percent in 1983. Furthermore, the CBO forecast implies that the deficits in 2010 and 2011 will also be above the previous record.

Furthermore, while GDP growth is projected to rebound substantially in 2012, the budget deficit is not expected to go back to the previous track. Rather than turning back to black by the middle of the decade, the forecast now points at deficits in the order of 3 percent of GDP for the whole period. Part of this can be explained by the debt build-up, implying higher interest costs. It is, however, alarming that also when removing the interest payments, the budget is 2 percent of GDP weaker than before the crisis.

Before the crisis, important indicators pointed towards an unsustainable fiscal situation in the long run, i.e. for the period after the current decade. In the medium run, however, there was no direct danger. After the crisis, also the situation in the shorter run is now alarming.

Regarding the foreign balance we note that there is a substantial discrepancy between different ways of measuring the current account. In particular the returns, including capital gains on the very large stock of foreign gross assets, are underestimated in some official calculations of the current account. The US has foreign gross assets with a value substantially larger than its yearly GDP. Furthermore, it has for decades earned a higher return on its assets than it pays on its liabilities. This return privilege allows the US to run a trade balance deficit of about 4 percent of GDP without increasing its net foreign debt.

If the return privilege remains, debt build-up is not going to force the US into large adjustments and dollar depreciation. In this respect, the current account deficit is not a big worry. But we do not know why the US enjoys such a return privilege. It seems reasonable that part of it could be explained by a superior financial sector in the US. If so, the financial crisis may well eliminate part of this superiority, which could lead to lower returns and a lower ability of US citizens to generate income by taking on foreign risk. If the return privilege were to vanish, quite dramatic and fast structural adjustments would need to be undertaken, which would have a large impact on the world economy and the value of the dollar.

The final chapter discusses the implications of the crisis for the performance of the euro area.

Chapter 5: Implications of the crisis for the euro area

The current crisis has led many analysts to re-assess the role of the euro. At face value, the euro area has done relatively well in avoiding the massive financial crisis of Anglo-Saxon countries. Does the crisis prove the virtues of the euro, or can it be a source of tensions that strain the viability of the monetary union?

We acknowledge that membership of the euro area has helped to eliminate the possibility of a "twin crisis", i.e. a joint banking and balance of payment crisis, in the member countries. Such crises may occur when the liabilities of financial institutions are denominated in foreign currency. During such a crisis, expectations of a sudden drop in the exchange rate reduce the solvency of those institutions, which makes it more likely that a run may occur. To the extent that these crises are self-fulfilling rather than driven by fundamentals, the euro is unambiguously beneficial. It reduces their likelihood because member countries borrow in euros and even if they were to borrow in foreign currency, it is unlikely that a debt overhang in a particular country could trigger a sharp depreciation of the euro, as that country only accounts for a small part of the entire euro area economy.

On the other hand, the crisis brings about some scenarios that may be problematic. One such scenario is a rapid, excessive appreciation of the euro reflecting a flight out of US assets. Another is a balance-of-payments crisis in Central and Eastern European countries. Despite the fact that these countries are not members of the monetary union, they are expected to join some day, and financial and macroeconomic fragility there affects the euro area. While we consider the first scenario unlikely, although by no means impossible (given our assessment of future US adjustment needs), the second one may leave policymakers in the euro area with tough choices. These may include a bail-out of some Eastern countries that may weaken the euro area, an early entry of Eastern applicants at inadequate parities and under bad macroeconomic conditions, or a balance-of-payments crisis in the East that may delay entry.

Finally, we document a number of asymmetries and imbalances between the core members of the monetary union, in particular with respect to inflation differentials and net foreign asset positions. It is unclear whether the crisis exacerbates or dampens those asymmetries. But the evolution of spreads in government yields during the crisis suggests that the credibility of the euro area is not absolute. It is plausible that the asymmetries, while not accentuated by the crisis, undermine the credibility of the currency zone, which itself becomes more of an issue in times of crisis. That is, a shrinking economic activity may make imbalances such as low competitiveness, high trade deficits or high public debt more problematic, which increases the likelihood of an exit from the euro area or of a default on public debt. The rise of the spreads during the crisis suggests that over a ten-year horizon and for a peripheral country, markets do not consider those possibilities as rare events.

One case in point is Greece: in December 2009, its sovereign debt was downgraded to BBB. The spreads shot up again as debt has grown well beyond 100 percent of GDP, while low competitiveness due to past cumulated inflation differentials makes it difficult to exit the recession. Possible scenarios include outright default, exiting the euro area, or a bail-out from core euro countries. None of those scenarios is favourable for the euro. A bail-out can be especially problematic if it fails to prevent contagion to other, much larger economies with a public debt overhang, such as Belgium or Italy, for which a bail-out would be too costly.