

SUMMARY

The financial crisis that originated in the United States has now turned into a European sovereign debt crisis. In some European countries it abruptly put an end to a period of soft budget constraints in which large capital imports had nourished a process of rapid growth coupled with rising and unsustainable trade imbalances. Now a period of hard budget constraints and belt-tightening has set in, which is likely to reverse the growth patterns of the past, because capital markets will re-allocate the available savings. The world is split into capital-exporting countries that are recovering quickly from the shock, and capital-importing countries that are struggling to get back on their feet.

Western countries attempted to counteract the sudden recession by resorting to loose monetary policies, Keynesian recovery programmes and generous bank rescue operations. However, in the process they have taken on great burdens and exacerbated a public debt situation that in some cases was already unsustainable. In 2010, some European states had to go into intensive care, and others may follow. Obviously, the world economy is still in turmoil and far from settling into a new equilibrium.

In this 10th EEAG Report on the European Economy we concentrate on the European sovereign debt crisis. We shed light on its origins, predict how it will affect the European economy (Chapter 1) and draw the lessons for a new economic governance system for Europe (Chapter 2). The governance system that we designed and present here would help to manage future crises, should they occur, while at the same time imposing the necessary discipline to prevent their occurrence in the first place. We also have included separate, in-depth analyses of Greece (Chapter 3) and Spain (Chapter 4), examining these countries in detail and outlining the available policy options. A final piece (Chapter 5), on regulating and taxing the banking sector, completes this year's analyses.

A common theme underlying our discussion is the role that the euro has had on European imbalances in

trade and capital flows. While we consider the euro a useful and necessary integration project for Europe, we believe that in the absence of an appropriate economic governance system it has contributed to the problems currently affecting Europe. It created a common capital market that eliminated the huge interest spreads which in pre-euro days had reflected the differences in country-specific inflation and depreciation expectations, implicitly offering security against default that it was ultimately unable to deliver. All of a sudden, cheap credit at lower real and nominal interest rates had become available to the countries of Europe's periphery, in particular the GIPS countries (Greece, Ireland, Portugal and Spain), lending a boost to their economies. The cheap credit fuelled a construction boom that brought more jobs and higher income to construction workers, increasing their consumption and boosting demand throughout the domestic economy. Furthermore, rapidly increasing real estate prices encouraged homeowners to acquire further credit-financed property and created expectations of additional capital gains that triggered even more such investment. In some countries, in addition, governments borrowed excessively and boosted domestic demand via extraordinary increases in government salaries and public transfers.

What began as a useful process of real convergence benefiting formerly lagging economies eventually went too far, overheating these economies and creating bubbles that ultimately burst. A ring of derelict, half-finished buildings surrounds many cities of the GIPS countries as a mute testament to overinvestment.

Today, some of the afflicted economies are stuck with excessive wages and prices that far exceed the competitive level. While exports are held down by the high prices, high incomes generate a volume of imports that is not sustainable, given that the flow of cheap credit has now ceased. In the years before the crisis (2005–2008), Greece had a current account deficit of about 12 percent of GDP, Portugal 11 percent, Spain 9 percent, and Ireland about 4.5 percent. Only Ireland and Spain have now managed to reduce this deficit significantly.

On the other side of the fence, Germany, which had exported two-thirds of its savings, or 1,050 billion euros, since 2002 and had the lowest net investment share of all OECD countries, stagnated and depreciated in real terms, with wages and prices rising more slowly than anywhere else in the euro area. The stagnation depressed imports in Germany while the real depreciation boosted exports, both in a measure sufficient to accommodate the net capital exports largely caused by the creation of the common capital market.

We believe that Europe will have a hard time redressing these imbalances. The solution cannot be to call the euro into question, but for Europe to overcome its regime of soft budget constraints, resorting to a regime exhibiting a more prudent investment behaviour, based on the principles of liability and responsibility. It also needs a system of generally accepted supervision and codes of practice in the financial industry, as well as tight public debt constraints so as to tame the excessive and unhealthy capital flows that caused the crisis. Once such a system has been established, the current difficulties of the euro may turn out to be mere teething problems in what ultimately will become a success story in the process of European integration.

Chapter 1: Macroeconomic Outlook

When the world recession ended mid-2009, it was unclear which letter would best describe the subsequent shape of the world's recovery process: V, L and W were among the candidates. Today, it is clear that the recovery was V-shaped, proving the optimists right. After it shrank by 0.6 percent in 2009, the world economy showed a rebound and is expected to have reached a growth rate of 4.8 percent in 2010. World trade expanded quickly for four quarters in succession. Whereas industrial production in the emerging and developing countries has returned to its long-term growth path and surpassed its pre-crisis level, in most advanced countries it is still far below its pre-crisis levels. Here, on average, not even half of the drop has been regained since spring 2009, and capacity utilisation rates in industry are therefore still at historically low levels.

During the course of 2010, however, the recovery of the world economy slowed down. Whereas economies could still benefit from stimulus measures, a rebound in inventories and a general recovery of the economic climate during the first half of last year,

now the austerity programmes in Europe and the phasing out of fiscal stimulus measures in the United States are contributing to the slowdown and will keep economic growth subdued in most advanced economies during 2011.

We expect world GDP to increase by 3.7 percent in 2011 and thereby fall back to what can be considered its long-term average. Not all regions will contribute equally to this development. Once more Asia will deliver the strongest contribution. The two larger economic areas, North America and Europe, will remain below their potential.

In the United States, due to its continuing structural problems, a strong self-sustaining upturn is not in sight. The ongoing recovery in quite a number of European countries remains subdued, mainly as a consequence of the dampening effects of highly restrictive fiscal policies and the hesitation of capital markets to continue providing cheap finance to the capital-importing countries. In most emerging markets, the pace of expansion remains comparably high. Nevertheless, growth rates will stay below the levels reached last year. World trade, which last year increased by about 12 percent, will return to normal and accordingly record a growth rate only about half as high. The remaining underutilisation in many advanced economies and more moderate growth in the emerging world will keep inflation rates low.

Economic and political discussion in Europe last year centred on the sovereign debt crisis. Concerns regarding the solvency of countries like Greece, Ireland, Portugal and Spain have led to high interest rate spreads on government bonds for these peripheral countries vis-à-vis Germany's. In spring 2010, the finance ministers of the euro-area member countries together with the IMF agreed on the establishment of an emergency fund to help these governments in financial distress. Although the European sovereign debt crisis is about illiquidity or potential insolvency of individual member states, the interconnectedness in terms of cross-holdings of sovereign debt within the European banking sector also makes it a concern of inner-euro area financial stability. The ECB is therefore keeping an eye strongly focused on the stability of the financial system and in effect has begun bailing out endangered countries.

The differences between the individual member countries remain substantial. In the capital-exporting countries, which have relatively sound public finances

and few structural problems, such as Sweden, Finland, Germany, Denmark, Austria and the Netherlands, growth is expected to be above average, as capital is now increasingly reluctant to leave the home country. Unemployment in these countries is likely to fall during the year. In the capital-importing countries of the European periphery, however, the tightening of public and private budget constraints imposed by the capital markets will continue to dampen growth. The recovery will only come slowly, as in Italy, Spain and Ireland, or the economies will remain in recession, as in Greece and Portugal. All in all, GDP in the European Union is expected to increase by 1.5 percent this year, after 1.8 percent in 2010.

After current account balances were significantly reduced in 2009 in absolute terms, last year saw a moderate step back towards pre-crisis levels. The increase among those countries running current account deficits was almost solely due to the United States and the United Kingdom. The demand impulses the governments of these two countries set were met by increased net exports of most of the surplus economies. Of these, only China was an exception to the rule. Albeit at a slower pace than the year before, it continued to reduce its current account surplus, while its strong domestic growth gave further impulses to the rest of the world. Furthermore, most other deficit countries, in particular Spain, Italy and Greece, have successfully started to improve their trade balances because of the increasing difficulties to find the capital to finance them.

Chapter 2: A New Crisis Mechanism for the Euro Area

Ideally, the public debt constraints that Europe imposed with the Stability and Growth Pact, which basically forbids deficits exceeding 3 percent of GDP, would have sufficed to instil the necessary debt discipline in the euro area. However, the pact was clearly inadequate because it was never really respected. Until 2010, the records for the European Union show 97 (country/year) cases of deficits above 3 percent. Less than one-third of these cases (29) coincided with a significantly large domestic recession, so that in principle they could have even been justified on the basis of the original stipulations of the Pact. Still, there was no ground for justification in the remaining 68 cases, and thus sanctions could and should have been imposed. In fact, however, that never happened. Member states were ready to “reinterpret and redefine” the Pact, again and again, to make the condi-

tions softer and softer. Obviously, the political debt constraints that the European countries had imposed on one another never worked.

Only the market constraints worked. Admittedly, the markets put a stop to this deleterious European development too late and too abruptly. But at least they stopped it dead in its tracks.

Thus we believe that a good economic governance system that would discipline the European countries should not try to circumvent the market but use its disciplinary force in a way that will allow for a fine-tuning of the necessary checks to excessive public borrowing. In addition, such a system should provide a limited degree of protection to investors buying government bonds, helping to prevent panic in the case of a crisis as well as avoiding unlimited interest spreads, making it unlikely for governments to be unable to borrow from the international capital markets. In short, we seek a system that protects against insolvency without degenerating into a full-coverage insurance free of any deductibles.

We propose a three-stage crisis mechanism that is based on the EU countries’ decisions of 16–17 December 2010, in particular the establishment of a European Stability Mechanism (ESM), specifying in more detail how these decisions could be implemented. We distinguish between illiquidity, impending insolvency and (full) insolvency, placing most emphasis on the second of these concepts, because it acts as a “breakwater” barrier aimed at forestalling a full insolvency.

First, if a country cannot service its debt, a mere liquidity crisis will be assumed, i.e. a temporary difficulty due to a surge of mistrust in markets that will soon be overcome. The ESM helps to overcome the liquidity crisis by providing short-term loans, senior to private debt, for a maximum of two years in succession. This time span should be long enough for the country to raise its taxes or cut its expenditures so as to convince private creditors to resume lending.

Second, if the payment difficulties persist after the two-year period, an impending insolvency is to be assumed. Collective Action Clauses (CACs) in government bond contracts ensure that a country can choose a piecemeal approach when trying to find an agreement with its creditors, dealing with one maturity of bonds at a time without holders of other maturities having the right to also put their claims on

the table. The ESM in this case provides help in terms of partially guaranteeing (up to 80 percent) replacement bonds that the country can offer the creditors whose claims become due, but only under the condition of a haircut for the respective loan maturities. The haircut will see to it that the banks and other owners of government bonds bear part of the risk of their investments. As the haircut will, within limits (20 to 50 percent), be sized on the basis of the discounts already priced in by investors, it will clearly help stabilise markets.

Third, should the country be unable to service the replacement bonds and need to draw on the guarantees from the ESM, full insolvency must be declared for the entire outstanding government debt. A collective debt moratorium covering all outstanding government bonds will have to be sought between the insolvent country and its creditors.

The CAC bonds, backed by partially guaranteed replacement bonds, provide a possibility for troubled European countries to address their financing needs immediately. As these bonds define and limit the risk to investors, they provide a key instrument for countries to raise money from the market without having to resort to the funds of the ESM. For instance, issuing these bonds can make it possible for these countries to repurchase debt at today's discounted market values, with the goal of significantly reducing their debt-to-GDP ratios.

The key prerequisite for maintaining market discipline is the sequencing and relative size of the haircut and government aid in the case of pending insolvency. Before financial aid in the form of guaranteed replacement bonds may be granted, the creditors must initially offer a partial waiver of their claims. Only this order of events – with defined maximum losses for the investors – can guarantee that the creditors apply caution when granting loans and demand (limited) interest mark-ups. The interest mark-ups are an indispensable disciplinary device of markets that ensures that over-indebted countries have an incentive to reduce their demand for credit.

No crisis mechanism should be instituted in Europe that again eliminates interest spreads, as happened in the first years of the euro. In particular, the euro area should under no circumstances move to eurobonds as advocated by some European politicians. We can only warn that issuing such bonds will exacerbate the problems we see at the root of the crisis. Eurobonds could

do nothing but strengthen incentives for opportunistic behaviour on the part of debtors and creditors, given that they prevent the emergence of fundamental risk premiums, by acting as full-coverage insurance against insolvency. Appropriate pricing of sovereign risk is an essential feature of well-functioning financial markets. It induces debtors and creditors to keep capital flows within reasonable limits and to exercise caution in lending. This is the essential prerequisite for correcting European trade imbalances in future.

Chapter 3: Greece

During the spring of 2010, it became clear that the Greek government was in serious financial trouble and needed massive support. In May a gigantic rescue package was put together by the European Commission, the ECB and the IMF, in order to help Greece and reduce the risk of contagion to other EU member states. This chapter discusses whether the rescue package will meet its intended goals and prove sufficient to help Greece onto a sustainable path without the need for further support after the expiration of the current package in June 2013.

Greek government spending experienced a huge expansion during the 1980s, without a countervailing increase in government revenues. During the 1990s recorded deficits fell considerably, but in the year 2000 they started increasing again. Despite moderate deficits between the mid-1990s and the mid-2000s and fast growth in nominal GDP, government debt increased even relative to GDP. We show that this was partly due to excessive government spending and partly due to off-budget activities: during the 1990s various outstanding liabilities had to be consolidated into the government debt. In 2009, the accumulated effect of these off-budget items had contributed to the outstanding debt relative to GDP by more than 60 percentage points. A successful return to sustainable public finances requires full control of the development of these off-budget items.

At least as worrisome as the fiscal situation is the external balance. As compared to any other EU15 country, Greece experienced the strongest decline in national savings over the past decades. As a consequence, the current account balance started deteriorating in the mid-1990s, a process that subsequently accelerated. After 2004, current account deficits added almost 50 percentage points to net foreign debt relative to GDP, which stood at around 100 per-

cent in 2010. This huge debt build-up, far above the widely accepted “danger thresholds” of 40 to 50 percent of GDP, accumulated over a relatively short period of time. Net foreign debt was in fact close to zero in 1997.

Compared to other euro-area countries faced with fiscal problems, a number of features of the Greek economy pose particular difficulties. Greece has a very high share of self-employed, at around one third of total employment – the highest share in the OECD. Underreporting of income is likely to be much higher among the self-employed, reducing the effective size of the tax base. Underreporting also has distributional consequences. For example, more than 40 percent of self-employed doctors practicing in the most lucrative (for medical professionals) area of Athens reported an income below 20,000 euros in 2008. If this is not changed, popular support for needed fiscal consolidation will be undermined. Fighting tax evasion must be a key focus for future reform. In addition to more direct measures, further increases in VAT rates, coupled with reductions in social security contributions, should be considered. This type of budget-neutral tax substitution reduces the effective tax advantage of non-traded activities and it promotes the development of the export sector. Thus, over time this policy could help restore both fiscal and external balances.

The self-employed are largely shielded from international competitive pressure, which is an important reason for the low competitiveness of the Greek economy. Greece has an extraordinarily high share of services in total exports, of which a large share is shipping services. Net exports of services (including shipping) have been consistently more than 5 percent of GDP. In contrast, net goods exports have been registering very large deficits, sometimes exceeding 15 percent of GDP. This creates a situation in which a real exchange rate depreciation can – via substitution effects – only very slowly reduce the current account deficit. An expansion of the export sector sufficient to restore a sustainable external balance is not likely to occur soon. Instead, the required adjustment will most likely have to come from a fall in imports, via reductions in wealth and income. The conclusion is that it is likely that Greece will see a number of years with output far below potential and very high unemployment rates. Although such a development might help in reducing the current account deficit, it makes it more difficult to achieve fiscal balance. In our opinion it is thus unlikely that, with normal debt instruments, the Greek government will be able to return to

private markets, at default-avoiding interest rates, for all its borrowing needs when the bailout package expires in June 2013.

The new kind of government bonds we describe in Chapter 2, however, might offer a solution to Greece. As these bonds provide security to investors insofar as they will be convertible – after a limited and well-defined haircut – into replacement bonds that are partially secured by the ESM, Greece should be able to refinance its debt in the market if it offers its creditors appropriate interest margins over safer kinds of investment.

Regardless of whether Greece’s sovereign debt crisis can be resolved, there remains the problem of how to get rid of the huge and unsustainable current account deficit. There are, in principle, only three options; i) exiting the euro and introducing a devalued drachma, ii) a radical internal depreciation, with Greek prices and wages falling sharply relative to those in the rest of the euro area, and iii) an ongoing transfer program from the European Union to finance the deficit. We discuss these options in detail. We rule out the third alternative of ever-continuing transfers from the European Union to Greece as a viable solution. A key argument against transfers is that they are very unlikely to help a region with structural problems to gain international competitiveness, as demonstrated by the negative experience of the transfers to eastern Germany over the last two decades. The first two options, external and internal depreciation, both impose very large costs and will not work quickly. Both will increase the burden of foreign debt expressed as a share of GDP and have dangerous effects on the balance sheets of many firms and financial institutions. An internal depreciation as large as required can certainly not be achieved without a painful and sustained contraction of the economy and higher unemployment. An external depreciation is likely to be preceded by rumours that can cause a bank run and lead to a currency crisis. There is therefore no alternative that is clearly more palatable than the other in every respect. The choice is between two evils.

Chapter 4: Spain

For more than a decade before the current crisis, Spain was hailed as a success story. After a period of weak economic performance characterized by pathologically high unemployment rates, its growth rate

accelerated and exceeded the EU average, its fiscal outlook improved and unemployment started to fall to normal levels by European standards. It benefited from joining the European Monetary Union, which gave it a fiscal windfall in the form of a very rapid convergence of interest rates to the European levels: Spain no longer had to pay a premium for its inflation risk in the form of higher interest rates.

This “Golden Decade” has come to an abrupt end, however, as Spain has been severely hit by the crisis. It has suffered from widespread job destruction that has pushed unemployment back to above 20 percent. A severe contraction of GDP has generated large budget deficits and Spain has been punished by financial markets that have imposed on it higher spreads than for Italy and Belgium, albeit still lower than for Greece, Ireland or Portugal.

We discuss the performance of the Spanish economy before as well as during the crisis, highlighting a number of weaknesses that cast doubt over the sustainability of the boom years. During those years, the Spanish economy specialised in low-skill-intensive services and construction; it accumulated positive inflation differentials with respect to the rest of Europe, which eventually created a competitiveness problem and contributed to very large trade deficits, in spite of a dynamic export sector that maintained a satisfactory performance but did not grow enough to offset the large increase in imports; total factor productivity was low and most of the growth was due to the reduction in unemployment, together with large immigration flows.

Furthermore, during this period very little was done to tackle structural rigidities in the labour and product markets. These rigidities account for a low potential for long-term growth and reduce the economy's capacity to absorb shocks. Hence in the current crisis wages grew by more than 3 percent despite the huge hike in unemployment. The structural rigidities that account for the poor labour market performance of the 1980s were merely papered over by the boom of the Golden Decade. We thus fear that after the crisis is over, a period of very high unemployment may prevail in Spain.

The crisis has intensified the need for reform, with the government facing the twin challenge of achieving rapid fiscal consolidation to calm down markets and avoid insolvency, and of implementing structural reforms. The contractionary policies could have been

softened had the Spanish government embarked on a programme of reforms early in the crisis. This would have yielded credibility to Spanish economic policy and implied less financing constraints from the international capital markets. Unfortunately, such reforms were never implemented.

Such reforms would, however, be necessary to reallocate labour to the external sector in order to restore the internal and external balance, and to bring about productivity gains strong enough to mitigate the reduction in real wages that are necessary for the adjustment. These ingredients are necessary for Spain to correct its large imbalance in the external sector, which is a required component of any fiscal consolidation package. We stress the need for reforms of the employment protection legislation and the system of collective bargaining, as well as reforms in product markets that would enhance competition and the need for Spain to improve the quality of its R&D and higher education systems. The emphasis has to move from infrastructure investments to human capital formation.

In particular, we endorse a proposal made in 2009 by 100 economists that would allow for agreements at the company level to supersede any sectoral agreement, for example, if the lower level agreement implied lower wage growth than the sectoral one. Thus, sectoral agreements would only define a default option in case bargaining does not take place at the company level. At the same time further steps must be taken to end the duality of protection in the labour market as well as reforming unemployment subsidies so as to incentivise job search.

We also emphasise reforms that would make the public sector more efficient, as well as a liberalisation of barriers to entry in the service sector and productivity improvement in small and medium-size enterprises. The speedy reform of the financial sector after the adverse real estate shock is crucial to provide adequate credit to the economy. The aim must be to raise total factor productivity growth, which has been disappointing so far and will play a key role in increasing exports and mitigating the short-term negative impact of structural reforms on living standards, thus making them more politically acceptable.

The crisis offers a unique opportunity to pass a comprehensive reform package. The only question is whether Spanish society and its politicians will take advantage of this window of opportunity.

Chapter 5: Taxation and Regulation of the Financial Sector

Since the onset of the financial crisis, governments have been searching for policies to offset the costs of bailing out the financial sector, and to put in place structures to reduce the probability and severity of a future crisis. The last chapter of our report examines proposals that have been considered, and enacted, for new taxes on banks and other financial institutions, analysing these taxes in the light of existing and new regulations on the financial sector. The chapter focuses primarily on regulations that are related to tax proposals.

The chapter begins by briefly reviewing the causes of the recent financial crisis, identifying the key factors that need to be addressed by taxation or regulation. It then summarises existing work on the choice between taxation and regulation as alternative ways of dealing with negative externalities imposed by one company, or one sector, on the rest of society.

The key policy analysis of the chapter relates to two alternative objectives for new taxes on the financial sector: i) raising revenue, and ii) inducing behavioural change that will make another crisis less likely.

From a forward-looking perspective, the first objective would be to raise revenue that could be used to build a resolution fund for the next crisis. We consider two possible approaches to the design of a tax base for such a purpose. One is a form of insurance premium, where the tax reflects the risk that an individual company will require support from the resolution fund and the amount of support that it would require. Such a tax would be complex, however, since it would need to be based on factors that reflect the financial fragility of the company, its size and the degree to which it is systemically connected to the rest of the sector. It would almost certainly affect the behaviour of banks and other financial companies, possibly inducing them to reduce leverage and the risk of their investments. However, these effects would depend on the form of the tax, and there is a danger that it could have unexpected consequences if introduced – as it almost certainly would be – alongside regulations on capital and liquidity requirements.

Another option, better geared towards raising additional revenue, would be the Financial Activities Tax (FAT) recently proposed by the IMF. This has two possible forms. We would favour a narrow base,

including only economic rents and the remuneration of very highly paid employees. This would in principle be non-distorting, and so would not create uncertain and complex interactions with the regulatory regime. However, if revenue requirements are sufficiently high, it may require a high rate. At the other extreme, all remuneration could be included in the tax base. This would be similar to a tax on the value added. Since its base is larger, the rate could be lower. This version could be seen as a substitute for the absence of VAT in the financial sector, although the form of the tax would differ from VAT, and a number of technical details remain to be resolved. Either form of the tax could be introduced alongside existing corporation taxes.

A second objective of a new tax in the financial sector could be to help make a future crisis less likely, by inducing banks and other financial companies to reduce leverage or to invest in less risky assets. One option for this objective is the Financial Securities Contribution (FSC) also proposed by the IMF. Basically this is a tax on the bank's balance sheet that exempts the equity capital and insured assets but includes off-balance sheet operations. Several countries have either introduced, or announced that they plan to introduce, such a tax. While this tax is partly designed to raise revenue, it is also clearly intended to reduce leverage.

In principle, this tax could be a meaningful addition to a Tier 1 capital regulation, as it would also lead to a higher capital ratio relative to all assets – including government bonds, which are currently not included in the sum of risk-weighted assets in the Basel system. The FSC, similar to a minimum capital requirement as it is included in Basel III, is independent of the risk of the bank's assets. It is likely that a bank would respond to a higher capital ratio – induced either by the FSC or by the minimum capital ratio – by shrinking its balance sheet through a reduction of its holdings of government bonds, whose risk is not measured by the Basel regulations, while maintaining its equity capital. This would increase the ratio of capital to all assets, while maintaining the same ratio relative to risk-weighted assets. Such a strategy would raise the average risk of its remaining assets, but this would be more than offset by the higher capital ratio, implying that the probability of default would fall. However, it is also possible that a bank could follow a different strategy that would increase the probability of default.

We review evidence on the minimum capital requirements that are necessary to equate marginal social costs and benefits. Based on this evidence, the highest requirements under Basel III should be seen as a lower bound of what is socially optimal. It is likely that additional social benefits would be achieved by a higher ratio, though these benefits would probably be relatively small. We propose that these requirements should continue to be set by regulation, while we are more insecure about the role of a tax. A minimum capital asset ratio is a possibility, but the required ratio should be higher than 3 percent.

Additional tax revenue might, however, be useful in establishing a crisis resolution fund. Options for taxation include taxes, such as the FAT, intended to raise revenue in a relatively non-distorting way, as well as taxes, such as the FSC, that are intended to supplement regulation. The main case in favour of the latter stems from an attempt to overcome the deficiencies of existing regulation; its value may therefore depend on whether it is instead possible to reform the regulation directly.