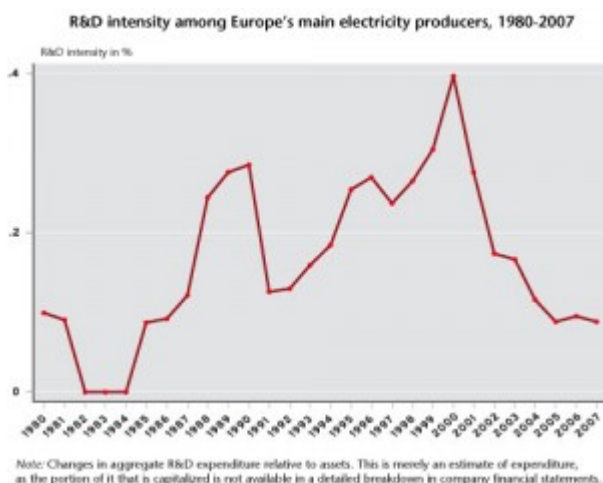


# R&D all at sea: Have electricity producers lost the plot?

By [Evens Salies](#)

Is there an inherent conflict between the technological efforts needed to meet the requirements of environmental policies and the liberalization of electricity markets? In effect, the way R&D spending by European electricity producers has changed over the last three decades can give rise to doubts about the ability of the European Union to meet its goal of reducing greenhouse gas emissions by 80% to 93% by 2050 ([European Commission, COM/2010/0639](#)).

This is shown by the graph below, where we have isolated the expenditure of the 15 main producers. The figure shows a surprising reversal of the trend concomitant with the wave of liberalization in the sector sought by the EU. As concurrence doesn't necessarily mean causation, we took a look at whether the liberalization could be the source of this turnaround.



The R&D spending of Europe's electricity producers has shrunk by 70% between 2000 and 2007, from 1.9 billion euros to 570 million euros (figures adjusted for inflation). The giants EDF and E.ON, which represent the two biggest R&D budgets in the sector, are largely responsible for this decline. R&D spending by the French electricity firm fell 33% from 2000 to 2007, from 568 million euros to 375 million. As readers are probably aware that R&D costs mainly go on personnel, it will come as no surprise that, in the case of EDF, the number of employees engaged in R&D (researchers plus technical support and administration) has fallen by about one-quarter since 2007, but we were not able to break this reduction down by type of activity.

How can producers meet the technical challenge posed by alternative energy while spending so little on R&D? Some people might believe that the situation is not as dramatic as implied by the graph above. Indeed, the R&D expenditures of the large electrical groups constitute only the bare minimum (around 10%) of the total, which is mainly spent by equipment manufacturers and public research laboratories. Looking at the figures for total private spending, it can be seen that there has been a relative increase since 2000 in the shares intended not only to increase energy efficiency, but also to produce electricity from renewable energy sources. This is the result of numerous support measures for innovation (measures to purchase "green" electricity, financing for public / private partnership projects, etc.), without omitting the research tax credit also enjoyed by EDF.

It is nevertheless best to hold off before celebrating the above-mentioned shift in environmental innovation from the producers to the manufacturers, as the competition might well wind up by undermining the ability of the former to acquire these innovations. The question of why R&D spending has been falling thus remains relevant. Were levels abnormally high in

the past, when producers enjoyed the status of public monopolies? It is in any case possible to find objective reasons for the decline, beginning with the liberalization of the markets in the European Union which, as several studies have shown, was the event triggering this radical change in the innovation policy of the electricity producers [1].

The thesis put forward in these studies is that the expected increase in competition following the opening up of these markets makes the value of the producers' future income more uncertain. The argument in support of this thesis is that some research projects directed towards public policy objectives (those reducing emissions) do not any yield short-term cost savings that would benefit the producers. The producers have thus refocused on their core business and abandoned research programs that are not procuring them any tangible benefits, particularly in terms of patents. In Europe, however, these sacrificed environmental innovation projects are now being developed by the manufacturers (for example, Vestas in the field of wind power). Research in nuclear power is being taken over by research providers such as Areva and Siemens. The producers are tending to replace these by programs with shorter research time frames that focus on energy demand management or improvements in energy efficiency. Note that the nature of innovation as a public good makes producers cautious, as they are supposed to bear the costs of the research projects but will not be the only ones to reap their benefits. This encourages some players to engage in "free riding", and therefore leads to underinvestment in R&D at the aggregate level in the sector.

Interestingly, we find that this switchover gives rise to an acceleration of R&D spending in the period just prior to liberalization. First observed in the United States, this phenomenon can be seen clearly in Europe when looking at R&D levels. When the Directive containing the common rules for the internal electricity market was passed in 1996, the decline in

spending that ensued was actually preceded by an increase that was even greater than that observed on average between 1980 and 1995.

However, the establishment of market rules does not explain everything. The restructuring / fragmentation taking place as the sector has opened up is not without consequences for innovation. In a way that is similar to what has been observed in other sectors like ICT, the major electricity groups began to take on debt – which necessarily came at the expense of spending on research and other investments – as they engaged in new acquisitions. Companies reorganized their research by outsourcing. The example in France is that of EDF Energies Nouvelles, since August 2011 a wholly-owned subsidiary of EDF. The industrial organization that exists today in the electrical power sector is an oligopoly with a competitive fringe. Although the activities of the main traditional producers are subject to separate accounting, they still form vertically integrated groups, from production to marketing.

This restructuring and fragmentation evokes a hypothesis that is well-known to economists concerning the advantage of large companies in terms of innovation: the *Schumpeterian hypothesis* [2]. Formally, the question is whether the intensity of R&D – that is to say, the ratio of R&D expenditure to a size variable (the balance sheet, for example) – is positively correlated with size. We were able to demonstrate this link in a sample of 15 major European electricity producers for the period 1980-2007 [3]. However, this result is largely contingent on the period under study, during which most producers were protected from new market entrants and competitive pressure on the territory where they were doing business as public enterprises, then called “natural monopolies”.

This position gave them at least three advantages that have now disappeared. First is a kind of “right of first refusal” on the use of innovations provided by equipment manufacturers,

while they were also less fearful of being imitated on their own innovations. The potential for replication was limited to a very specific area of  $\pi$ -activity for each country, usually the country, which made it possible to spread the costs of innovation over all domestic consumers. Moreover, as they were certain not to lose their customers, the traditional producers could take risks in launching basic research projects. Finally, the regulation of tariffs ensured a predictable level of revenue.

This suggests that the Schumpeterian impact of rent appropriation dominated the negative effect on the incentive to innovate due to the lack of actual or potential competition. Once the sector was opened to competition, some of the advantages listed above disappeared. The vast majority of customers remained loyal due to the significant cost of switching, but an increasing share of the electricity produced was sold on weakly regulated wholesale markets at volatile prices. The Schumpeterian hypothesis could therefore disappear, and competition would lead to stifling the innovation fostered by spending on R&D.

### **An oligopoly of producers with a competitive fringe**

Europe's electric power sector is characterized by a small number of large producers (oligopoly) that hold a large share of the market, while a large number of small firms (the competitive fringe) each have a small part of the residual market. Contrary to the received wisdom about competition, the fringe can have an impact on wholesale prices. In practice, since electricity cannot be stored, a producer asked by a carrier that is responsible for balancing production and consumption can offer the output of a power plant with low marginal costs at a price above the cost. An example is a producer at a marginal plant which, in times when demand is running up against production capacity (the peak), is requested to ensure the overall balance as a last resort.

[1] The study by Kammen, D.M. and R. M. Margolis ("Underinvestment: the energy technology and R&D policy challenge", *Science, Energy-Viewpoint*, no. 285, 1999, pp. 690-692) had anticipated this situation for the United States. A study by P. Sanyal ("The effect of deregulation on environmental research by electric utilities", *Journal of Regulatory Economics*, Vol. 31, no. 3, 2007, pp. 335-353) was the first to use econometrics to show how the liberalization of the electricity market was related to the fall in R&D spending.

[2] Please see [http://en.wikipedia.org/wiki/Creative\\_destruction](http://en.wikipedia.org/wiki/Creative_destruction) .

[3] "A test of the Schumpeterian hypothesis in a panel of European electric utilities", *Document de Travail de l'OFCE*, no. 2009-19, <http://www.ofce.sciences-po.fr/pdf/dtravail/WP2009-19.pdf>.

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## What new European austerity plans await us in 2012?

By [Eric Heyer](#)

To meet French commitments vis-à-vis Brussels to a general government deficit in 2012 of 4.5% of GDP, the French Prime Minister Francois Fillon announced a new plan to cut the budget by 7 billion euros. Will the plan, announced 7 November, be sufficient? Certainly not! So what new austerity

plans should we expect in the coming months, and what impact will they have on growth in 2012?

In early October 2011, among the points we indicated in our forecast dossier was that, of all the finance bills approved in Europe, no major country has met its commitment to reduce the deficit.

This will be the case in particular of Italy and the UK, which could face a gap of between 1.5 and 2 percentage points between the final public deficit and their commitment. In the case of France and Spain, the gap will probably be 0.6 and 0.7 point, respectively. Only Germany will come very close to its commitments (Table 2).

Unlike in previous years, the implementation of these commitments would seem probable: in an uncertain financial context, being the only State not to comply with its promise of fiscal consolidation would be punished immediately by more expensive financial terms on the repayment of its debt.

This will therefore require the adoption of new austerity plans in the coming months. But by attempting to reduce their deficits too early, too quickly and in a synchronized fashion, the governments of the European countries are running the risk of a new downturn. Indeed, as we noted in a recent study, tightening budget policy during a cyclical downturn in all the European countries and doing so in a situation of a persistent "liquidity trap" is contributing to the formation of a strong multiplier, close to unity.

How many billion euros will be targeted by the next fiscal savings plans? What impact will they have on economic growth? Several possible cases were considered.

### **Case 1: Each country respects its commitment alone**

In order to isolate the impact on growth of the national savings plan and those of the partners, we have assumed that each country meets its commitment alone. Under this

assumption, the effort would be significant in Italy and the UK, which would present new austerity plans for, respectively, 3.5 and 2.8 points of their GDP (56 and 48.7 billion euros). France and Spain would implement an austerity plan two to three times smaller, about 1.2 points of GDP, representing 27 and 12.1 billion euros, respectively. Finally, the German savings plan would be the weakest, with 0.3 point of GDP (7 billion euros) (Table 1).

**Table 1. Amount needed to meet the public deficit commitments in 2012**

	Germany	France	Italy	Spain	United Kingdom
<b>If each country meets its commitment alone</b>					
In billions of euros	7.0	27.0	56.0	12.1	48.7
In GDP points	0.3	1.3	3.5	1.1	2.8
<b>If the EU countries respect their commitments</b>					
In billions of euros	22.3	39.8	63.9	19.6	55.2
In GDP points	0.9	2.0	4.0	1.8	3.2
<b>If the euro zone countries meet their commitments</b>					
In billions of euros	16.6	36.1	61.7	17.9	
In GDP points	0.6	1.8	3.9	1.7	

Source: OFCE calculations.

These different national austerity plans, taken in isolation, would have a non-negligible impact on the growth of the countries studied. With the exception of Germany, which would continue to have positive growth in 2012 (0.9%), this kind of strategy would plunge the other economies into a new recession in 2012, with a decline in their GDP ranging from -0.1% for Spain to -2.9% for Italy. France would experience a decline in activity of -0.5% and the British economy of -1.9% (Table 2).

**Table 2. Impact on GDP of meeting the deficit reduction commitments in 2012**

In %	Germany	France	Italy	Spain	United Kingdom
<b>OFCE forecast</b>					
GDP	1.2	0.8	0.4	0.9	0.7
Public deficit (in GDP points)	-1.4	-5.2	-3.4	-5.0	-8.0
<b>If each country meets its commitment alone</b>					
GDP	0.9	-0.5	-2.9	-0.1	-1.9
Public deficit (in GDP points)	-1.3	-4.5	-1.5	-4.4	-6.5
<b>If the EU countries respect their commitments</b>					
GDP	-0.3	-1.7	-3.9	-1.5	-2.6
Public deficit (in GDP points)	-1.3	-4.5	-1.5	-4.4	-6.5
<b>If the euro zone countries meet their commitments</b>					
GDP	0.1	-1.4	-3.6	-1.2	0.3
Public deficit (in GDP points)	-1.3	-4.5	-1.5	-4.4	-8.2
Remainder of commitments for 2012	-1.3	-4.5	-1.5	-4.4	-6.5

Source: OFCE calculations.



## **Case 2: All the EU countries meet their commitment**

Of course, if all the major European countries were to adopt the same strategy at the same time, then the savings effort would be greater. It would amount to about 64 billion euros in Italy and 55 billion euros in the UK, accounting for 4 and 3.2 percentage points of GDP, respectively. The additional effort would be about 2.0 percentage points of GDP for France and Spain (respectively 39.8 and 19.6 billion euros) and 0.9 GDP point for Germany (22.3 billion euros). In total for the five countries studied, the cumulative savings effort would represent more than 200 billion euros in 2012.

The shock on the activity of these countries would be powerful: it would cause a violent recession in 2012 for some countries, with a fall in GDP of -3.9% in Italy (against -5.1% in 2009), and -2.6 % in the UK (against -4.9% in 2009). France would be close to recession (-1.7%), as would Spain (-1.5%), while German GDP would decline slightly (-0.3%).

## **Case 3: Only the countries in the euro zone meet their commitment**

As the UK has already implemented a substantial austerity program, and given that their constraints in terms of the deficit are more flexible than those of countries in the euro zone, we assumed that only the major countries in the euro zone complied with their commitments on the public deficit. Under these conditions, the cumulative savings effort would represent more than 130 billion euros in 2012, almost half of which would be from Italy alone (61.7 billion).

The recessionary shock would thus be focused on the euro zone, with a recession in all the countries studied except Germany (0.1%). The British economy would avoid a new period of recession (0.5%), but it would not meet the target of 6.5 percentage points of GDP for the public deficit, which would come to 8.2 GDP points.

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# The G20 Summit in Cannes: Chronicle of a Disappointment Foretold?

By [Jérôme Creel](#) and [Francesco Saraceno](#)

Too long and too technical, the [final declaration](#) of collective action of the G20 Summit in Cannes shows that no clear and shared vision of the economic and financial turmoil that is rocking the global economy has emerged at the Summit. And as Seneca reminds us, the disappointment would have been less painful if success had not been promised in advance.

According to the official announcements, the disappointment was palpable at the end of a G20 summit in which no significant progress was achieved – on the most important issues of the moment, the revival of growth in particular. The crucial issues of agriculture and finance gave rise simply to declarations of intent, with a reminder of the commitments made on these ... in 2008! The disappointment must be kept in perspective, however, as the G20 is primarily a forum for discussion rather than for decisions. Indeed, what remains of the commitments made in April 2009 by the G20 in London, mired in global recession? The expansionary fiscal policies? Forgotten, as a result of the public debt that they have produced – debt, by the way, that was perfectly predictable. Strengthened financial regulation? Repeatedly trotted out, but still not implemented, despite the determination displayed in Paris on 14 and 15 October 2011. The desire to avoid protectionism? Barely mentioned, nor did this succeed in

preventing the outbreak of 36 [trade disputes](#) brought before the WTO, including 14 involving China, the EU and / or the United States. All that remains is a monetary policy that is “expansionary as long as necessary”, in the words of the pre-Summit statements. So does the fate of the international monetary system depend simply on the good will of the central bankers, independent as they are?

The meeting was also troubled by the crisis hitting the euro zone, which virtually forced off the agenda such important issues as the resurgence of protectionism, which was relegated to paragraphs 65 to 68 of a 95-paragraph document. At Cannes, the emerging economies and the US were spectators of a drama unfolding between Paris, Berlin, Rome and Athens.

The crisis hitting the euro zone is a result of the heterogeneity of its constituent countries, much as the financial crisis triggered in 2007 was a result not just of a lack of financial regulation but also of the increasing heterogeneity between mercantile countries and countries presumed to be the El Dorados of investment, on the one hand China and Germany, and on the other, the United States and Ireland. This European heterogeneity, one of four deficiencies of the euro zone, has led countries with a surplus in their current accounts to finance countries running a deficit. Alone, and with its priority on the fight against inflation imposed by the Treaty of the EU, the ECB is unable to promote convergence within the euro zone. However, in the short term it can end the crisis in the euro by agreeing to provide full coverage of public debts in the euro zone (see [\[1\]](#), [\[2\]](#) or [\[3\]](#)), and by significantly increasing its [purchases of government debt in Europe](#). This would maintain European financial stability and perhaps generate inflationary expectations, thereby helping to lift Europe's economy out of the [liquidity trap](#) in which it has been mired since the beginning of the financial crisis. Note that despite its activism, the US Federal Reserve has not so far managed to

create such expectations and remains caught in the same kind of liquidity trap.

In the longer term, it is necessary to review European economic governance. The active use of economic policy in the United States and China contrasts with the caution displayed by the ECB and with the European reluctance to pursue expansionary fiscal policies, and more generally with the decision to build European economic governance on a refusal of discretionary policies. It would be desirable for the ECB, while preserving its independence, to be able to pursue a [dual mandate](#) on inflation and growth, and for the [rules that discipline](#) fiscal policy to be “smarter” and more flexible.

Giving the economic policy authorities an opportunity to implement discretionary policies should not mean forgetting about the risks posed by the absence of a coordinated approach, which may lead the US Congress to threaten unilateral compensatory taxes on goods imported from countries whose currency is undervalued. This move is evoking the specter of protectionism, and the G20 countries should consider a mechanism to coordinate policy so as to avoid the trade wars that are already being more or less explicitly declared.

Furthermore, a currency war does not seem to be an effective way to protect our economies: the under-or overvaluation of a currency is a complex concept to apply, and the impact of a currency's value on exports and imports is made very uncertain by the international fragmentation that characterizes the production of goods and services. Rather than employing a defensive policy, it is definitely better to substitute an [active industrial policy](#) to take advantage of new technological niches that create business and jobs.

Finally, for words to have real meaning – to “build confidence and support growth” in the advanced economies and “support growth” while “containing inflationary pressures” in the

emerging economies ([G20 Communiqué](#), Paris, 14-15 October 2011) – we must challenge the “contagion of [fiscal contraction](#)” that is now shaking the euro area and, rather than an additional phase of rigor, put recovery plans on the agenda in the advanced economies while interest rates are still low. These plans must be targeted in order to generate growth and not jeopardize the solvency of public finances: it is thus necessary to encourage public investment. To maximize their overall impact, these plans need to be coordinated, including with the actions of the central banks, so that the latter can support them by maintaining low interest rates. The Summit in November 2011 was very timely for this kind of coordinated approach to emerge. Unfortunately, it didn't.

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# Can the central banks influence the expectations of private agents?

By Paul Hubert

Can the forecasts of a central bank influence the expectations of private agents, and if so what are the reasons for this? A few hours after the press conferences of Ben Bernanke and Mario Draghi, here are some explanations.

The awarding of the [2011 Nobel Prize in Economics](#) to Thomas Sargent and Chris Sims for “their empirical research on causal effects in macroeconomics” highlights the role of the expectations of private agents in economic policy decisions. Because the expectations of businesses and households about

inflation and growth affect their decisions on investment, consumption, savings, and wage demands, these are at the heart of the interaction between economic policies and their effects.

Since the 1980s, the main instrument of monetary policy has been the interest rate set by the central bank. Changes in this affect the economy and allow the central bank to arbitrate between economic growth and inflation through [several channels](#), and in particular interest rates, credit, asset prices, exchange rates and, finally, expectations. Indeed, in the course of their daily decision-making, businesses and households base themselves on numerous expectations about consumption, investment, future capacity and future wages and prices, etc. These expectations then play a central role in the determination of economic variables. Changes in the central bank rate thus send signals about the future state of the economy and future monetary policy, and alter the expectations formed by private agents.

However, the expectations channel is ambiguous, and changes in the base rates can be understood in different ways: private agents may respond to lower rates by consuming and investing more, which may indicate that growth will be stronger in the future, bolstering their confidence and their willingness to consume and invest. In contrast, the same agents may feel that current growth is lower than expected, prompting the central bank to intervene, which reduces their confidence, and hence their willingness to consume and invest.... Since the 1990s, the central banks have been complementing interest rates with the [effect of announcements](#) to clarify their future intentions. Communication seems to have become a [tool of monetary policy](#), and two types can be distinguished. Qualitative communication includes interviews and speeches, while quantitative communication consists of the publication of the central bank's forecasts of inflation and growth.

In a [recent working paper](#), we analyze the effect of the

forecasts of inflation and growth published quarterly by the central banks of Canada, Sweden, the UK, Japan and Switzerland. With the help of surveys conducted by Consensus Forecasts of professional forecasters from financial and non-financial sectors, we show that the inflation forecasts of the central banks of Sweden, the UK and Japan are a significant factor in the inflation forecasts of private agents. In other words, the publication of the central bank inflation forecasts leads to a revision of the forecasts of private agents. It also appears that the opposite is not true: the central bank forecasts do not respond to the forecasts of private agents.

Two factors could explain the central bank's influence: first, the inflation forecasts of the central bank could be higher quality, making it rational for private agents to be influenced by them so as to improve their own forecasts of macroeconomic variables. Second, the inflation expectations of the central bank can influence private agents because they transmit signals, either about future decisions on monetary policy, or about the private information available to the central bank. This type of influence is independent of the forecasting performance of the central bank.

To determine the sources of this influence, we evaluated the relative forecasting performance of the central banks and private agents and tested whether the central bank's influence on private expectations depends on the quality of its forecasts. Estimates showed that, in our sample of central banks, only the central bank of Sweden produced significant, regular and robust inflation forecasts that were better than those of private agents. We also found that the degree of influence depends on the quality of the inflation forecasts. In other words, the inflation forecast over a short horizon (1 or 2 quarters), which a historical analysis of forecast performance tells us are of low quality, do not influence private agents, whereas those of higher quality do influence them. Furthermore, the longer-term inflation forecasts of

Sweden's central bank managed to influence private expectations even when their quality was low, and the better the quality, the stronger the influence.

While the central banks in the United Kingdom, Japan and Sweden all succeed in influencing private expectations by publishing their macroeconomic forecasts, it appears that the reasons for this influence differ. The first two use the transmission of signals, while the Swedish central bank uses both possible sources for influencing private expectations: its greater forecasting capability and the sending of signals. The consequence of these results is that the publication by the central bank of its macroeconomic forecasts could facilitate and render more effective the establishment of the desired monetary policy by shaping private expectations. This transmission channel, which is faster because it relies only on the provision of forecasts, could thus allow the central bank to affect the economy without changing its key interest rate, in practice making it an additional policy instrument.

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## The Paradox of Confidence

by Augusto Hasman, département Innovation et Concurrence de l'OFCE

An interesting question raised in many forums is why Greek depositors continue to have confidence in their government while Greek bonds holders do not.

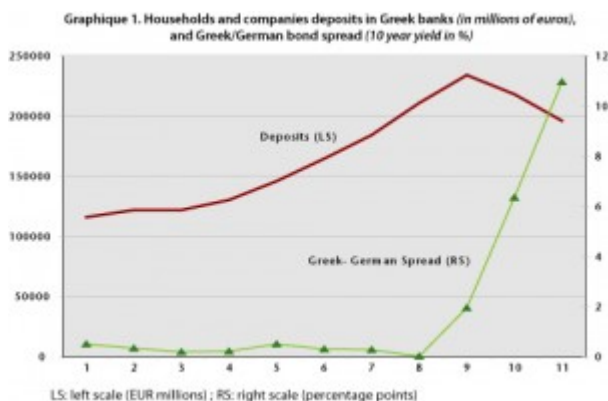
The Hellenic Deposit and Investment Guarantee Fund's (HDIFGF) derives resources from initial membership as well as from annual contributions paid by credit institutions. If these resources are not sufficient to compensate depositors in case of failures, supplementary resources are provided by the

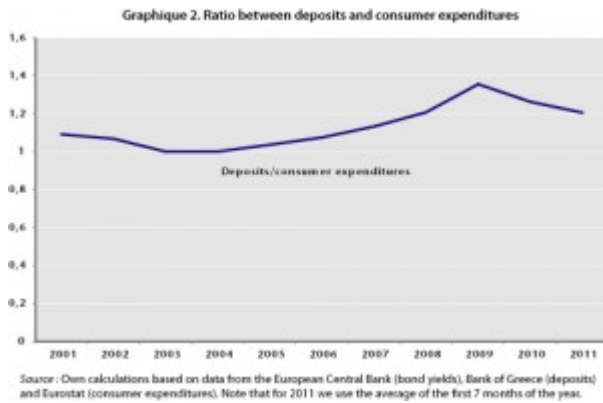


Central Bank (Law 3746/2009).

But in the case of a bank run, would the Greek government be able to pay those depositors without the help of the European Central Bank? The Greek debt is now 153% of the GDP, up from 106% in 2007. Is it reasonable to believe that the government can raise extra funds in case of a bank run without the need to print money and with no explicit guarantee? (In practice, the European Central Bank is not obliged to bailout Greek banks or to insure Greek depositors).

In the aftermath of Irish increase of the deposit guarantee in 2008, many countries followed suit in order to prevent depositors from looking for safer accounts in other European countries. Greece was one of them. It increased the insurance to cover deposits up to 100,000€. That might be one of the reasons why Greek bank deposits increased considerably during 2008 and 2009 (14.4 and 11% respectively). Although it seems to be that depositors are turning their back to the banks (deposits have been falling since then, -6.7% in 2010 and -10.14% during the first 7 months of 2011), once considering the effect of the fall of income, the deposit/consumption ratio is still over the average for the decade (the ratio between deposits and consumer expenditures is decreasing but it is still higher than what it was during the period 2001-2008, figure 2). Surprisingly, depositors' behaviour has not been really affected by the country risk (see figure 1, the spread of Greek bonds over the German ones is a measure of government risk and it has risen).





What makes Greek depositors apparently so confident in their banks? It must be recalled that beyond deposit insurance, it might take time if depositors were to get their money back in case of failures, (up to 6 months according to the HDIFGF – ask Northern Rock depositors for more information about the subject!). What would happen if eventually Greece decided to abandon the Euro? In which currency would depositors expect to be paid? In this case better ask the question to Argentinean depositors!

I do not want to spread fear among Greek depositors but to debate the implications of greater financial integration without an explicit European safety net. For example, should deposit insurance be a national matter or a European one? What about supervision? Today the centre of the hurricane is in Greece, but the risk of contagion to other countries is high.

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# Why the developed countries should renounce their AAA rating

By [Catherine Mathieu](#) and [Henri Sterdyniak](#)

By their very nature, states with monetary sovereignty should renounce their AAA rating: indeed, what is the logic behind having the rating agencies rate a state whose default is rendered impossible by its ability to create its own money? To avoid dependence on the rating agencies and put an end to the crisis in Europe, the Member States of the euro zone must recover their monetary sovereignty through the joint, virtually complete guarantee of their public debts.

Since 1945, no developed country has defaulted on its debt. There was no risk on the debt, since the states borrowed in their own currency and could always obtain financing from their central bank. The developed countries enjoyed "monetary sovereignty". This is still the case today for Japan (which enjoys 10-year loans at 1% despite a debt of 210% of GDP), the United States (which borrows at 2% with a debt of 98% of GDP), and the United Kingdom (which borrows at 2.5% with a debt of 86% of GDP).

Banks and insurance companies cannot function if they do not have risk-free assets and if they have to guard against the failure of their own state, which is of course impossible: the amounts involved are enormous, and government securities serve to guarantee banking and insurance activities. The banks and insurance companies could not accumulate enough capital to withstand the bankruptcy of their own country or multiple euro zone countries. As we can see today with the sovereign debt crisis in the euro zone, such a requirement would lead to the general paralysis of the banking system.

It is fundamentally absurd that the rating agencies rate a state with monetary sovereignty, as if its default were an option worth considering. States with monetary sovereignty should renounce their AAA rating: by their nature, their debt is risk-free because it is guaranteed by the central bank's power to create money.

The euro zone countries have lost their "monetary

sovereignty”: under the Treaty of the European Union, the European Central Bank has no right to finance Member States, and the States are not bound by joint liability. The financial markets noticed this in mid-2009, and suddenly uncontrollable speculation erupted, targeting the most fragile countries in the zone: first Greece, Portugal, and Ireland, which had the fastest growth before the crisis, but will have to change their growth pattern, and then, like dominos, Italy, Spain, and even Belgium. Today, Belgium has to pay an interest rate of 3.8%, Spain 5.2% and Italy 5.6%, compared with 2.6% in France and just 1.8 % for Germany. Greece, Ireland, and Portugal are now in the situation that the developing countries faced yesteryear: their debts have become risky assets subject to high risk premiums, and they are being brought under the yoke of the IMF.

The workings of the financial markets could completely paralyze fiscal policy. When a country enjoys monetary sovereignty, then in a recession the central bank can lower its maximum interest rate and if necessary commit to keeping it low in the long term; the state increases its deficit, but the low interest rates prevent the debt from snowballing; and it pushes exchange rates lower, which boosts activity. Since the debt is guaranteed by the creation of money, there is no risk of bankruptcy, and thus no reason to have to constantly *reassure* the markets. The central bank, by maintaining long-term rates at low levels in a recession, ensures that fiscal policy is effective. Fiscal policy does not need to worry about the markets. This is still the strategy of the United States today.

In the euro zone, the risk is that in the future a country could no longer increase its deficit for fear that the agencies might downgrade its rating and interest rates would then soar. The countries are therefore condemned to prove their virtue so as to appear as wise as Germany in the eyes of the markets. This renders their fiscal policy impotent, and

their economic situation spins out of control (see, for example, [The impossible programme of the candidates for the presidential election](#)). The public debt becomes a permanent risk factor, since the states are at the mercy of the markets' insatiable appetite. Any economic policy should of course be assessed while taking into account the views of the markets. Yet the markets have no special competence in macroeconomics. They impose austerity policies during a recession and then turn around and complain about the lack of growth – which is exactly what they are doing today with respect to the euro zone in general, and Italy and Greece in particular. They are promoting free market reforms such as cutting social welfare programs or the number of teachers. For countries to retain the ability to regulate their economic activity, the risk of default needs to be zero.

The euro zone must thus choose between dissolution and a reform that would guarantee the public debt of the Member States, which would re-gain their “monetary sovereignty”. European public debts should become risk-free assets, compensated at low rates but guaranteed in full (by European solidarity and fundamentally by the ECB). This is the only way to maintain the independence of fiscal policy, which is essential given the disparities in Europe and the loss by each country of its monetary and exchange rate instruments.

The functioning of the euro zone was not thought through at the time of its creation, particularly with respect to the trade-off between “autonomy of fiscal policy / single currency / monetary sovereignty”. Joint liability creates a moral hazard problem, as each country can increase its debt without limit, but a lack of a guarantee leaves the field open to the play of the financial markets, which are constantly on the lookout. The guarantee cannot be limited to countries that meet the automatic rules, which is unwarranted economically and fails to comply with the Stability Pact. It should be automatic and total. To avoid moral hazard, the European

Treaty should include a provision for the extreme situation where a country carries out an unsustainable fiscal policy, in which case the new debt of the country would no longer be guaranteed – but this should never come to pass.

Freed of the need to reassure the markets, the euro zone countries could engage in differentiated but coordinated fiscal policies, with their main objective being to ensure a return to a satisfactory level of employment consistent with low inflation.

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# Should tax breaks on overtime be reversed?

By [Eric Heyer](#)

Among the savings plans announced on 24 August 2011 by French Prime Minister François Fillon figures a change to the system of tax reductions on overtime hours and their exemption from social contributions,[\[1\]](#) a scheme that has been in force in France since 1 October 2007. This provides an opportunity to take another look at some of the [main conclusions of the work carried out by the OFCE](#) (French version) on this subject.

1 – An article to be published soon in the *Oxford Review of Economic Policy*[\[2\]](#) explains how the impact of this scheme will differ depending on the position of the economy in the cycle at the time the measure is applied.

- In a favourable economic climate, an increase in working hours prompted by lower labour costs and the elimination of payroll taxes would seem appropriate. The measure is of course not funded (the public deficit deteriorates),

and financing it through higher levies would radically change its nature, even though this would not call into question its positive impact on employment and unemployment.

- However, this measure is poorly suited to the kind of economic downturn that the French economy is going through today. In a situation of mass unemployment, an increase of 1% in working hours has a negative impact on employment (-58,000 jobs at 5 years and -87,000 at 10 years). The unemployment rate would increase slightly (0.2 point at 5 years, 0.3 point at 10 years). The measure would have a small impact on growth (0.2 point at 5 years and 0.3 point at 10 years) and is not funded: the deficit would deteriorate by 0.5 point at 5 years (0.4 point at 10 years).

2 – This corroborates the results of a recent study published in *Economie et Statistique*[\[3\]](#). The authors examined data on 35 sectors of the French economy and estimated that a 1% increase in overtime would destroy about 6,500 jobs in the commercial sector (*i.e.*, 0.04% of commercial jobs), three-quarters of which would be temporary jobs.

Thus, in a context of a severe economic crisis, it seems that an incentive to work longer hours would hurt employment, especially temporary employment.

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[\[1\]](#) The government decided to reintegrate overtime hours into the general schedule of tax reductions while maintaining specific advantages on taxes and social welfare charges. Concretely, this measure will not change anything for employees: net remuneration will not be reduced, and income tax will not be increased. As for employers, they will continue to benefit from exemptions on charges for declared overtime hours, but will see smaller breaks on charges on low wages. This will take effect next January 1<sup>st</sup> and, according to

the government, will generate 600 million euros in revenue from additional social contributions.

[2] Heyer É. (2011), “The effectiveness of economic policy and position in the cycle: The case of tax reductions on overtime in France”, *Oxford Review of Economic Policy*, forthcoming.

[3] Cochard M., G. Cornilleau and É. Heyer (2011): “Les marchés du travail dans la crise”, *Economie et Statistiques*, no. 438-440, June.

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# The dual mandate, the Fed and the ECB

By [Jérôme Creel](#) and [Francesco Saraceno](#)

Since 21 September 2011, the US Federal Reserve has launched [Operation Twist](#) to reallocate its balance sheet to reduce long-term interest rates. This American activism contrasts once again with the caution displayed by the European Central Bank. On 7 September 2011, a US central banker declared that an unemployment rate of 9% in the US was as serious as an inflation rate of 5% would be. He concluded that US monetary policy needed to make the fight against unemployment a priority. We believe that this should be even more the case for the euro zone economy, which leads us to re-consider the mandate of the ECB.

Through Operation Twist, the Federal Reserve will be trading in 400 billion dollars worth of short-term government bonds



for long-dated Treasuries. The Fed's strategy of reallocating its balance sheet is aimed at reducing the long-term interest rate. This approach is consistent in spirit with the recent remarks of the President of the Chicago Fed.

The [speech](#) by Charles Evans on 7 September is worthy of our attention for at least two reasons. First, it indicates that today, even though the United States has slipped into crisis, with persistent unemployment and a new recession threatening, attention is being paid too much to inflation and public deficits rather than to the kind of action that would counter the crisis by conducting a policy commensurate with its scale. Using a target-function of the Fed and Okun's law, Charles Evans said that an unemployment rate of 9% of the US workforce would be as worrying as an inflation rate of 5 %: the 3-point gap with each of the two targets – a “natural” rate of unemployment of 6% (which he calls a conservative assumption, as the unemployment rate should fall if the United States were to recover the 8 growth points lost during the crisis) or an inflation rate of 2% (again, a conservative assumption) – is very comparable in a country like the United States that does not impose any hierarchy between the targets of inflation and of growth (more precisely, between inflation and maximum employment, see here). Evans noted that the unemployment rate in the United States has actually come to differ by 3 points from its target, but inflation hasn't ... and he then observes: “So, if 5% inflation would have our hair on fire, so should 9% unemployment.” This led Evans to consider that the inflation target, legitimate in the medium term, is not the priority, and therefore that an expansionary monetary policy should be accentuated by conventional or unconventional means, even at the cost of a short-term boom in prices (which is unlikely in an economy in crisis).

The second factor that leads us to take an interest in this discourse is the rapprochement, or rather the great difference, with European policies. Indeed, in reading these words and observing the actions of the Fed, the contrast with the discourse and actions of the ECB is striking. The [ECB's](#)

[difficulties](#) in pursuing a policy suited to the state of the euro zone result from an overly orthodox approach to monetary policy, with all due respect to certain members who have resigned from the ECB. This is rooted in the fundamental [Treaty on the European Union](#), where priority is given to inflation rather than growth (Articles 119 par. 2 and 127 par. 1). This leads the ECB to neglect the target of growth, to minimize it or, when circumstances ultimately so require (in a period of recession or slow growth) to pursue it in a non-transparent and thus ineffective way. We only have to look at the new [joint effort](#), between in particular the Federal Reserve and the ECB, to ensure dollar liquidity for Europe's banks, without any change in the key rate. The repeated procrastinations in European monetary policy from 2007 to 2008 – which were of course in support of the private banks, but, because of rising commodity prices, over which the ECB has no control, did not give any impetus to active monetary policy to counter the deterioration in activity – should not be repeated today. [Consumer price inflation in the euro zone in July 2011](#) is close to the medium-term target imposed by the ECB (2.5%), and it is being pushed upwards by rising raw materials prices (energy, coffee, tea, cocoa), by their impact on the prices of certain services (transport), and by the products used as the basis for the taxes that governments are wont to raise to try to restore a semblance of balance in their public finances (tobacco). Ultimately, in July 2011 the rate of inflation excluding energy and processed food products came to 1.5%. The unemployment rate in the euro zone is, for its part, on the order of 10% of the workforce. To paraphrase Charles Evans, one can say that while 5% inflation would certainly raise the hair on the heads of Europe's central bankers – and fortunately we are far from this – this should also be the case when the unemployment rate reaches 10% of the workforce! The big difference between a Fed official's expansionist drive and the ECB's policy of prudence in comparable economic circumstances (the gaps between the inflation and unemployment rates from their respective targets are more or less the same)

also finds a striking parallel in the fiscal policy speeches and actions on either side of the Atlantic. While the European debates almost invariably concern the imposition of additional constraints on the fiscal policies of the euro zone countries (the adoption of “golden rules” in Germany and Spain; the litany of fiscal austerity programs, the latest being in Italy), the need in the euro zone to be able to rely on a strong economic policy instrument comes down solely to the ECB. But this is not necessarily the case in the United States, where the federal government has proposed a new plan to revive the economy in the short term, together with fiscal consolidation over the next 10 years. The speech by Charles Evans should be given by Jean-Claude Trichet, but we are a long way from that. Standing firmly on the impeccable character of the ECB’s past actions (see the nuanced critique by [Paul Krugman](#)), the ECB Chairman, when he does talk, does not seem to take the measure of its responsibility for the future performance of its current policies. If the ECB fails to take the lead in boosting activity in a period of low inflation, then the governance of the euro needs to be reviewed. Two critical choices for the future are posed. The euro could disappear, which would not take place without serious difficulties (see the note from Jean Pisani-Ferry about Greece, whose conclusions could be extended to all the euro zone countries, including Germany) and must be firmly rejected. The status of the system of euro zone central banks could be amended to give equal dignity to the goals of economic growth and inflation, along the lines of the Fed, whose performance has made it possible to minimize the fears of an explosion of inflation.

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# Forced borrowing: the WMD of fiscal policy

By [Jean-Paul Fitoussi](#), Gabriele Galateri di Genola and [Philippe Weil](#)

A spectre is haunting Europe – the spectre of [sovereign default](#). All the powers of old Europe have entered into a holy alliance to exorcise this spectre: Brussels and Frankfurt, Angela Merkel and Nicolas Sarkozy, French socialists and German Christian Democrats. Churchillian doctors, they prescribe blood, sweat and tears – fiscal consolidation, tax increases and spending cuts. They swear, for the umpteenth time, that they will never surrender: Greece will be saved, Italy and Spain will not be abandoned and the rating of France will not be downgraded. In the face of adversity, they assure us that what cannot be achieved by [austerity](#) can be achieved by more austerity. An epidemic of holier-than-thou fiscal virtue is spreading throughout Europe and is fast transforming a series of uncoordinated fiscal retrenchments into a euro-wide contraction with dire implications for growth and employment.

To be sure, eurozone policymakers are in a maddening situation. The threat to monetise public debt, which in the old days could be waved by each country to remind investors it need not ever default outright, has been removed from national arsenals. No one knows for sure whether it will ever be brandished from Frankfurt or if European treaties even allow it. [Eurobonds](#) would have every economic merit but they hurt Germany which, having been left on its own to finance reunification, is understandably cold towards *die Transfer-Union*. Creating separate northern and southern euro areas would probably precipitate the end of the single market – and where would France fit? Wide-ranging fiscal reform designed to increase tax revenue equitably, while sorely needed, is a pipe

dream: it requires elusive European co-ordination in an area in which the temptation to compete is strong and it is best done at its own pace – not under the pressure of fickle market sentiment or rising sovereign spreads.

Add to this powerlessness the terrifying failure of the old engine of European policymaking (putting the cart before the horse in the hope that the cart will conjure up the horse) and you will understand the ghoulish visions gripping our leaders. Monetary union has not begotten the expected fiscal union. Imposing, as a substitute, austerity plans from Brussels or Frankfurt, or racing to be first to impose “golden rule” constitutional strictures on parliaments that should remain sovereign in fiscal matters is stoking the fire of civil unrest. The English Civil War and American Revolution were ignited by much less. It would be wise to recall, as John Hampden did in contesting the Ship Money tax levied by Charles I, that what leaders have no right to demand, a citizen has a right to refuse.

Yet Europe’s fate is not sealed. The spectre of sovereign default and rising spreads in Italy, Spain, Belgium and other countries can be chased away in one fell swoop and the panic of contractionary fiscal policies can be stopped. National governments must simply take out of their fiscal armoury the weapon that has served them so well in war and peace alike: forced borrowing.

It consists in coercing taxpayers to lend to their government. California did this in 2009 when it added a premium to the income tax withheld from paychecks, to be repaid the following year. In France, the first Mitterand government forced rich taxpayers to fund a two-year bond issue – and both the US and UK have used moral suasion in patriotic sales of war bonds. Compulsory lending is an unconventional weapon but it is high time it be used, even on a small scale, to remind investors that sovereigns are not private borrowers: they need never default because they can always force-feed debt issues to

their own residents.

Central banks have been bold and dared resort to unconventional policies to respond to the exceptional circumstances of this crisis. Large sovereign borrowers should be as defiant and intrepid. The invaluable asset of fiscal sovereignty guarantees that their public debt is completely risk-free in nominal terms. Investors who buy sovereign credit default swaps against the spectre of French or Italian default are wasting their money. Policymakers rushing to austerity should wake up from their nightmare and save growth and employment before it is too late.

*Jean-Paul Fitoussi is former president and Philippe Weil is president of OFCE, the Observatoire français des conjonctures économiques in Paris. Gabriele Galateri di Genola is president of Generali. The views expressed are their own.*

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# What impact will fiscal policy have on French growth?

By [Eric Heyer](#)

The proper framework for analyzing the French economy is a large economy that is not very open, and not a small open economy: the country's economic situation has deteriorated sharply and is still far from its equilibrium position (mass unemployment, the existence of excess capacity), and its European neighbours are adopting identical approaches to

fiscal policy. Under these conditions, everything indicates that the fiscal multipliers are high. The theoretical debate about the value of the multiplier and the role of agents' expectations must therefore give way to the empirical evidence: the multipliers are positive and greater than one.

Following a deep recession, the most suitable method for making a forecast of short-term activity (2 years) is to evaluate the spontaneous return of the economy (speed and magnitude) to its equilibrium or potential level, but also and above all to quantify the impact of exogenous shocks (commodity prices, economic policy, etc.) on its spontaneous trajectory.

In our [last forecast](#), we reported that the French economy has a significant rebound potential: corresponding to spontaneous growth of nearly 4% per year in 2011 and 2012, this would allow the economy, four years after the start of the crisis, to make up the output gap built up during that period.

Two exogenous shocks will slow down the country's return to its potential level. The first involves the soaring prices of raw materials: this shock will mainly hit households and will weigh on their purchasing power and curtail their spending. This mechanism, which is also at work in the other Western countries, will cause a slowdown in their economies and hence their demand for French output. In aggregate, this purchasing power shock will cut the growth of the French economy by 1 point during the period 2011-2012. The second shock is related to fiscal policy: from 2011 onwards, the large (and small) developed countries, in the face of mounting debt and expanding government deficits, will be implementing policies of fiscal restraint. The generalization of this strategy will also put the brakes on economic growth; its impact is estimated at 2.8 percentage points of GDP during the years 2011-2012.

While there is relative agreement on evaluating purchasing

power shocks, this is not the case for the impact of fiscal policy on economic activity.

### **What is the value of the fiscal multiplier?**

Economic thought has been divided since the Great Depression over how to assess the impact of fiscal policy. Two major theoretical schools in the history of economic thought are at odds over the expected short-term impact of fiscal policy on economic activity.<sup>1</sup> On the one hand, the “Keynesian” school holds that an increase of one percentage point of GDP in public spending (or an equivalent decrease in taxes) should result in an increase in GDP of more than one point. This is known strictly as the Keynesian multiplier effect. On the other hand, there are a number of theoretical arguments that question the ability of fiscal policy to generate a more than proportional increase in GDP. Within this opposing school, it is then necessary to distinguish between those in favour of a positive fiscal multiplier (albeit less than one) and those in favour of a negative fiscal multiplier; in the latter case, we are speaking strictly of anti-Keynesian fiscal multipliers.

Many empirical studies have attempted to settle this theoretical debate. A [review of the literature on this subject](#) tells us that the fiscal multiplier is always positive, and that the following situations push it higher:

1. The budget policies of the partner countries are synchronized;
2. The instrument used relies more on public expenditure rather than taxation (Haavelmo, 1945);<sup>2</sup>
3. Monetary policy is ineffective (IMF, 2010).<sup>3</sup>

In a [recent article](#), the OFCE highlighted a fourth factor, which concerns the position in the economic cycle: the multiplier is higher when the economy is at the bottom of the cycle.



What can we say about the current economic situation?

The implementation of austerity policies in all the European countries (criterion 1), focused on reducing public expenditure (criterion 2), and acting in a situation of a persistent “liquidity trap” (criterion 3) describes the context for a high multiplier.

Only an assumption that the economic crisis did not simply cause a drop in production but also may have had a strong impact on the economic potential of the euro zone economies could render the current strategy of fiscal consolidation optimal (criterion 4): based on this assumption, the rise in structural unemployment would be identical to that of actual unemployment, and the fiscal multipliers would be low in the short term and zero in the long term.

If on the other hand the growth potential of the economies did not significantly change during the crisis, then this strategy would lose its apparent effectiveness, which would confirm the relevance of the first three criteria and strengthen the impact of the fiscal consolidation.

On this crucial point, the strong stimulus imparted by economic policy renders any evaluation of the economy's new potential path more hypothetical and makes more complex the choice of a policy to end the crisis as well as the tempo of policy implementation. In any case, the violence of the initial shock can, it seems, lift any ambiguity about the case of the developed countries: even if it were agreed that this crisis has had a powerful impact on the economy's growth potential, this would still not cancel out the overcapacity generated by the crisis over three years.

What other scenario could lead to recovery?  
A neutral fiscal policy instead of the austerity policy  
*Summary of the impact of a neutral fiscal policy on exchange rates and public finances*

In points of deviation from the central scenario

	2011	2012
GDP	1.7	1.1
Gov't financial balances (GDP points)	-0.6	-0.6
Unemployment rate	-0.9	-1.5

Sources : INSEE; OFCE calculations e-mod.fr.

It is also possible to enrich the analysis by approaching it this time from the perspective of unemployment rather than production: unemployment rose brutally and spectacularly from the very start of the crisis, from 7.2% in early 2008 to 9.3% in late 2010. This increase in unemployment cannot be regarded as an increase in equilibrium unemployment: during this period, there were no significant changes in labour market institutions or practices, *i.e.* the main determinants of equilibrium unemployment. In the short term equilibrium unemployment could of course have been modified by a poor sector allocation of capital and labour resources. Some reallocation may also result from reduced productivity. But in any case there is no evidence of a lasting increase in equilibrium unemployment. The situation today is indeed a situation of involuntary unemployment as compared to what we could have seen, without inflation, with the full use of the available workforce.

Under these conditions all the evidence indicates that the multipliers are high: the country's economic situation has deteriorated sharply and is still far from its equilibrium position (mass unemployment, the existence of excess capacity); monetary policy has little bite; and all the developed countries are in the same configuration and will therefore carry out the same policy.

The proper analytical framework is therefore that of a large, not very open economy, and not that of a small open economy. The theoretical debate about the value of the multiplier and the role of agents' expectations must therefore yield to the

empirical evidence: the multipliers are positive and greater than one.

A simulation of a neutral budget policy indicates that the choice of fiscal consolidation proposed by the developed countries will thwart the start of a virtuous circle: without it, growth in “the Hexagon” would have been higher by 1.7 points in 2011 and 1.1 points in 2012 (Table 1). This would have allowed the unemployment rate to fall significantly (-1.5 point), eventually to 7.8% by 2012, close to the level prevailing before the crisis. The general government deficit would also have benefited from the boost in activity: it would have declined, although certainly less than in the case of the austerity policies set out (5 GDP points), reaching 5.6 GDP points in 2012 (Table 1). By raising the unemployment rate by 1.5 points compared to the baseline, *i.e.* the situation without a policy of fiscal restraint, the cost of a reduction of 0.6 GDP point in the general government deficit seems extremely high.

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1. In the long term, the effectiveness of fiscal policy vanishes. [[↵](#)]
  2. Haavelmo T. (1945), “Multiplier effects of a balanced budget”, *Econometrica*, vol. 13, no. 4, October, pp. 311-318. [[↵](#)]
  3. IMF (2010), “Recovery, Risk, and Rebalancing”, *World Economic Outlook*, Chapter 3, October. [[↵](#)]