### The ban on naked CDS takes effect

By Anne-Laure Delatte

The <u>small CDS market</u> serves as an instrument for coordinating speculation against European states. To stop the speculation, the European Union recently adopted a new regulation that came into force on 1 November. Unfortunately, this new law, though pioneering and ambitious, suffers from flaws that render it ineffective. This provides an example of how the interests of a single economic sector can capture policy.

### Quick primer on finance: how to speculate against a State

Two methods have won their spurs: short sales in the bond market and naked sales on the CDS market. Let's take two examples. If you think that Spain will not be able to meet its commitment to reduce its deficit in 2013, you could make money by betting against it the next time it issues bonds. To do this, you need to find an investor on the market who is prepared to buy Spanish bonds when they are next issued. You sell your customer bonds at that point while wagering that the price will be lower than what they think. You do not buy the titles at that time, as you can buy them at the time of delivery. You win if your expectations were correct: if the price of Spanish bonds declined due to the deterioration in the country's economic situation, then you will buy them for less than the purchase price that you agreed to. You are engaging in short selling.

There is another way of operating that the new European law also tries to counter. You make your bets on the market for credit default swaps (CDS), that is, the market for insurance against a Spanish default. It is smaller, it is concentrated, and it is easier to affect than the bond market. There's no

need for Spain to declare bankruptcy to pocket your winnings! Buy Spanish CDS (on state or Santander bonds) today and sell them when the risk has increased: you resell the protection for more ... One detail: do not actually burden yourself with Spanish bonds. They are useless since it is on the resale of the CDS that you make your profit. Your intention was never to insure the bonds... The CDS are tradable goods whose price evolves according to supply and demand. And this is precisely the advantage of a small liquid market: you can move the market with lesser amounts...

The Directive that took effect on 1 November 2012 banned these two strategies: short selling sovereign bonds and naked trading in sovereign CDS. If you now want to bet on the CDS market, you are required to hold in your portfolio the securities that the CDS protects, or at least very similar ones.

At last, a courageous law! A ban on naked CDS, which was considered in the United States and then abandoned in 2009, is a pioneering act by Europe! It's no longer possible to speculate against Europe's states...

### Except that:

The ban does not apply to "market makers". Who are they? To be sure that a market works, certain operators are committed to always buy or sell a security to anyone who so wishes (they simply determine the price of the transaction). This ensures market liquidity. For example, Morgan Stanley is a very active market maker on the entire CDS market; the bank provides continuous prices for all market transactions. "So these market makers are useful. Can you imagine if we even included these operators in the ban on naked CDS? There would be no more liquidity!" This is the essence of the argument used by the major banks to negotiate their exemptions and the specific argument used to justify the exemption of these market makers from the ban on naked sovereign CDS sales in Europe. The

market makers won: they can continue to trade CDS without holding the underlying bonds.

But wasn't the point made <u>in the previous post</u> that this market is in fact highly concentrated? That 87.2% of transactions were carried out by the 15 largest banks in the world ... all of which are market makers? In other words, the new rule will be applied to everyone ... except the main players on the market. It seems that the big French banks are currently in discussion with the <u>European financial markets authority</u> (ESMA) over the exact definition of a market maker to ensure that they too are exempt.

Of course. But the hedge funds too? They aren't market makers, they're clients. So the Directive must apply to them!

#### Except that:

Only the sovereign CDS market is concerned. It is still possible to hold CDS on a bank issue without holding the title. So it will be easy to circumvent the ban on betting against a State by betting against one of its banks (Santander in the example above). One shudders when contemplating the fragility of Spain's banks...

In conclusion, the idea for such a law was commendable. But the devil is still and always in the detail. The financial sector has defended its interests during the drafting of the law. It is urgent to develop the means to counterbalance this during negotiations. The Finance Watch association has been created specifically with this objective: to be present and make the voice of civil society heard during the preparation of financial reforms. The only problem is, it's David against Goliath...

# Could France have a different fiscal policy?

By <u>Jérôme Creel</u>

Shouldn't the economic crisis that is gripping the euro zone, including France, lead to calling into question the approach being taken by fiscal policy? In light of the unprecedented broad consensus among economists about the impact of fiscal policy on the real economy, it is clear that the austerity measures being adopted by France are a mistake. Moreover, invoking European constraints is not a good enough argument to exclude a much more gradual process of putting the public purse in order (also see the <u>iAGS project</u>).

There is no need to go beyond what European legislation requires, and doing so can be especially harmful if in fact the additional budgetary efforts generate less growth and, ultimately, further deterioration in the public finances due to higher social spending and lower tax revenue. What do the existing European treaties actually demand? In the case of a government deficit that exceeds 3% of GDP, the minimum effort required for fiscal adjustment consists of reducing the cyclically adjusted deficit, *i.e.* the structural deficit, by at least 0.5% of GDP per year. Furthermore, the time period for reducing the debt to 60% of GDP is 20 years. Finally, exceptional circumstances now include an "unusual event" that could justify deviating from the current standards for the deficit.

Based on these exceptional circumstances and on the rule requiring an annual improvement of at least 0.5% of GDP in the structural deficit, it can be shown that the French government

has fiscal maneuvering room in 2012 and 2013, while still complying with European fiscal rules.

Table 1 lists the sequence of public deficits and of GDP growth from 2011 to 2013 according to two forecasts produced by the European Commission in the Spring and then the Autumn of 2012. According to the Spring forecast, the French structural deficit was supposed to decrease by 1.2% of GDP between 2011 and 2013, on average slightly above what is required by the Commission. In fact, the improvement from 2011 to 2012 exceeded 0.5% of GDP, while it fell below that from 2012 to 2013.

What about the Autumn 2012 forecast? The expected improvement in France's structural deficit was now expected to be 1.1% of GDP between 2011 and 2012 and then 1.4% of GDP between 2012 and 2013, taking into account the government's commitment to reduce public spending and raise taxes. These projected improvements in the structural deficit are two and three times greater than what European fiscal rules require, which is a lot! For the year 2013, this amounts to almost 20 billion euros that need not be levied on French households and businesses. Abandoning this levy does not mean abandoning fiscal austerity, but rather spreading it out over time.

Furthermore, the European Commission now expects a slowdown in the French economy in 2013. Unless one argues that the French government is responsible for this slowdown — and while this might indeed be the case in light of the austerity budget the government is imposing on the French economy, it is far from clear that the European Commission would want to employ such an argument, given its role in championing austerity! — this deterioration in the country's growth prospects could fall within the category of an "unusual event," thus giving France an opening to invoke exceptional circumstances in order to stagger and extend its fiscal adjustment efforts.

Instead of awaiting the miraculous effects of structural reform — a potentially lengthy and uncertain process — all that is really needed is to apply the regulations in force, without imposing an overly restrictive reading of what they contain, so as to limit the reduction in growth being caused by austerity and avoid a new period of rising unemployment. According to the conclusions of the <u>iAGS report</u>, staggering the fiscal austerity measures in France would lead to adding 0.7 GDP point to growth every year from 2013 to 2017.

The "unusual event" constituted by yet another year of very low growth in 2013 for France also opens the possibility of suspending the austerity policies, at least temporarily. Once again according to the findings of the iAGS report, the French government should put off till 2016 its policy of consolidating the public finances. The gain in terms of growth would be 0.9 percentage point per year between 2013 and 2017. Provided that this policy is actually conducted carefully and not postponed indefinitely, it would enable France to reduce its public debt to GDP ratio in compliance with existing EU treaties.

Forecast for the French economy

		2011	2012	2013
Public deficit (% of GDP)	Spring 2012	5.2	4.5	4.2
	Autumn 2012	5,2	4.5	3.5
Structural deficit (% of GDP)	Spring 2012	4.1	3.2	2.9
	Autumn 2012	4.5	3.4	2.0
PIB (%)	Spring 2012	1.7	0.5	1.3
	Autumn 2012	1.7	0.2	0.4

Source: European Commission forecasts.

# Is nationalization a trap or a tool of industrial policy?

By Jean-Luc Gaffard

The closure of the Florange blast furnaces in the Moselle region by ArcelorMittal and the French government's hunt for a buyer led it to temporarily consider nationalizing the site, that is, not only the production of crude steel, but also the cold forming line. The threat of nationalization was clearly wielded with a view to forcing the hand of the Mittal group so that it would sell the operations to another firm. If a nationalisation like this had been carried out, it would have been a penalty-nationalization, *i.e.* a sanction of behaviour by the Mittal group deemed contrary to the public interest. Apart from this unusual feature, it would have also raised issues about competition.

The project around the Mittal site is reminiscent in some ways of the nationalization of Renault in 1945. It would be hard to argue, however, that any reproaches would be along the same lines. There would clearly be no question of the nationalized site being made a showcase for a social policy designed to spur the country's growth. The goal was less ambitious. It involved neither more nor less than a transfer of ownership from one private group to another. This would, of course, have been a first in the use of the weapon of nationalization. Any comparison with the French government's support for Alstom in 2004 doesn't hold: in this latter case, the point was to save a company that might go bankrupt as a result of risky acquisitions, and not simply to replace it with another company. Moreover, the problem was confined to the company in question, with no global or even sectoral implications.

Comparisons with the support of the Obama administration for the automotive industry in 2009 are also out of place, as that involved saving a company that was being forced into bankruptcy in an industry generally considered strategic.

The reality in the case of Florange was and remains that no potential buyer thought they would be able to keep the blast furnaces operating in an environment marked by falling demand for steel, in particular in the wake of the crisis in the automobile industry. That is why, whatever happened, the buyer would demand to keep the rolling mill too. This requirement would be in its best interest: the blast furnaces could not be taken over except on the condition that they could supply the activity immediately downstream on the same site. condition had been met, it would undoubtedly have posed a problem for the Mittal group, as it currently provides the steel for the mill in Florange from its Dunkirk site, so the new situation would have caused it difficulties, including in terms of jobs. In other words, a temporary nationalization with a view to a transfer of ownership would interfere with competition between private entities. It is far from clear that this was in line with the general interest.

The occasionally argued thesis that Mittal's strategy was the act of managers who were merely obeying the shareholders and who were advocates of an economy without factories or machines does not really hold water in light of the nature of the firm's activity and the degree of integration of the different production sites. One could, however, make the hypothesis that Mittal's strategy involving the closure of the blast furnaces in Florange amounted to a plan to ration supply that was designed to prevent a collapse of steel prices and boost already low margins. This hypothesis might be credible if the demand for steel depended primarily on its price, whereas it is obvious that the decline observed is the result of the global crisis and particularly the slump in sales in the automotive and construction industries. In other words, a fall

in steel prices today would not lead to higher demand and ensure the continued operation of all the blast furnaces. It is much more plausible to assume that, in the current macroeconomic environment, the transfer of ownership that was considered would simply have resulted in changing market shares rather than increasing the market's size.

In fact, there could only be real doubt about both the legitimacy and the capacity of the public authorities to arrange the most appropriate configuration for the market, or even the breakdown of the jobs to be saved or destroyed. Furthermore, if a decision to nationalize had indeed been taken in a situation like this, any determination of fair compensation would have proven difficult and prone to litigation.

In short, the nationalization under consideration could hardly have been an effective tool of industrial policy. It is not for the public authorities to arbitrate between private interests to determine who owns what, including when certain sites are to be closed. This type of arbitration is the responsibility of the competition authorities. Industrial policy, in turn, should interfere as little as possible with the division of market shares between the various competitors. At most it could ensure the survival of companies whose activity is considered strategic and who are going through a difficult period due to the global situation or to industrial choices that have proved erroneous or simply more expensive than expected.

In this situation, it is not surprising that the government did not follow up with the nationalization project and instead supported the compromise of simply requiring that Mittal undertakes to make investments to modernize the site and to maintain the blast furnaces in running order with a view to equipping them with highly efficient technology in terms of carbon dioxide emissions, leading to a gain in competitiveness, as part of the European Ultra-Low Carbon

Dioxide Steelmaking project (<u>Ulcos</u>).

The nationalization under consideration was indeed a trap in every sense of the word. The political and media battle about the fate of the Florange site revealed, in fact, an error in the government's analysis. The difficulties being experienced by the French steel industry result from a lack of demand, which is in turn the result of a policy choice of generalized austerity. Trying to resolve this macroeconomic problem with a microeconomic solution was, at a minimum, risky and shows the inconsistency of the short-term and medium-term decisions being taken on economic policy.

# Higher unemployment in France, greater poverty in Germany

By **Eric Heyer** 

Will France be the new Greece, as *The Economist* has argued? Should French reforms be accelerated and be modelled on those implemented in Germany ten years ago? For German public opinion, for its authorities and for a large number of economic experts, the answer is obvious. Not only does Germany have a lower deficit, but unlike its French neighbour it has also managed to significantly reduce its unemployment rate. Starting from a similar level in the early 2000s (close to 7.7% at end 2001), the unemployment rate now stands at 5.4% of

the labour force in Germany, 4.5 percentage points below the level in France (Figure 1).

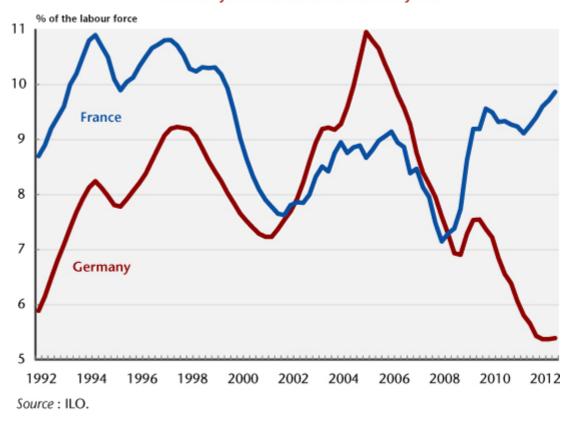
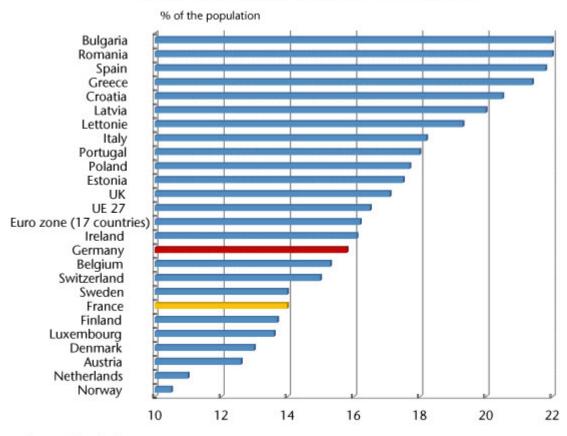


Figure 1 : Changes in unemployment in Germany and France over the last 20 years

The purpose of this note is not to revisit the reasons for this difference, which have already been the subject of posts on this blog (see in particular the impact of demography, by G. Cornilleau, of the reduction in working hours, by E. Heyer and M. Plane, and of the rise in male-female inequalities, by H. Périvier). The point rather is simply to note that the reduction of unemployment in Germany has been accompanied by a steep rise in poverty.

According to Eurostat, over the past six years the poverty rate (measured at the threshold of 60% of median income) has risen by 3.6 percentage points in Germany, four times more than the rise observed in France (0.9 point). In 2011, despite the sharp drop in unemployment and the large differential with France, the poverty rate in Germany was 1.8 points higher than

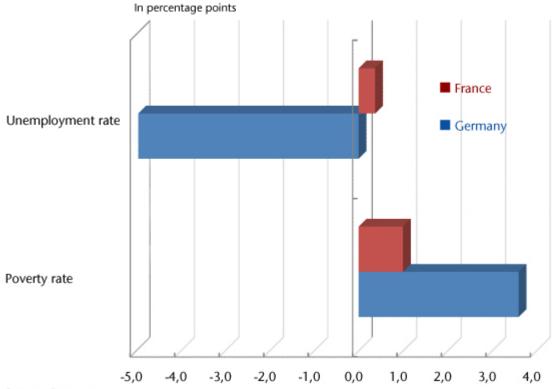
the level observed in France, i.e. a difference of over 11% (Figures 2 & 3).



Graphique 2: Poverty rate (60 % of median income) in 2011

Source: Eurostat.

Figure 3 : Changes in the unemployment rate and poverty rate (60 % of median income) in France and in Germany (2005-2011)



Source: Eurostat.

There is, therefore, a hidden side to the reforms implemented in Germany over the past ten years, which have led to lower unemployment but greater poverty.

# The dilemma of competitiveness

By Jean-Luc Gaffard

The competitiveness of a country is a complex subject. Some people rebel against the very concept on the grounds that it

can't be applied to a nation and is only meaningful for companies. It is true that if a company gains market share, this necessarily comes at the expense of a competitor. And it is no less true that when one country increases its exports to another, then the extra income earned by the first will, in part, fuel demand that then benefits the second. The benefits of one become a condition of benefits for the other. This back-and-forth justifies international trade, whose aim is a better use of resources by everyone, with the benefits being shared by all, on an equitable basis. This story makes sense. And it does indeed indicate that the competitiveness of a nation is not comparable to that of a business.

However, there are global imbalances that result in longerterm surpluses or deficits that reflect differences in the competitiveness of the companies in the countries in question. These require appropriate policy responses to meet the challenge of making possible what some have called the return journey, that is to say, to set in motion the mechanisms through which the income earned by one country is converted into demand on the other.

This is the difficulty facing France today. The country has been building up trade deficits since 2002: it is facing a problem with the competitiveness of its companies on global markets, and is no longer able to use the exchange rate instrument. The persistent trade deficit is clearly of even greater concern than the public deficit, and its absorption should be a priority. This is why calls have been mounting for a competitiveness shock, that is to say, economic policy measures that are able to make companies more competitive by reducing their production costs.

That said, a competitiveness shock is not easy to implement. Of course, in a developed economy, business competitiveness primarily means non-cost competitiveness that is based on a company's ability to occupy a technological or market niche. But regaining this type of competitiveness requires investment and time. Furthermore, non-cost competitiveness is not

independent of immediate price competitiveness. Quickly rebuilding business margins is a necessary, though probably not sufficient condition for a return to non-cost competitiveness. This requirement is all the more stringent today as obtaining captive markets through differentiation can often be very costly in terms of R&D and exploring customer prospects.

The difficulty facing the French economy is that the restoration of margins needed may come at the expense of household purchasing power and thus of domestic demand. Competitiveness gains could remain a dead letter if final demand were to collapse. Moreover, there is nothing to say that restoring margins *per se* will result in a pick-up in investment if companies face just such a slowdown in demand, if not a fall.

It seems that what is needed is to grasp both ends of the chain: short-term price competitiveness and medium-term non-price competitiveness. Quickly restoring business margins requires transferring the financing of social protection to taxes on households. Enabling companies to re-establish their price competitiveness demands further improvements in the level of infrastructure and support for the establishment of productive ecosystems that combine good local relationships and the internationalization of production processes. In both cases, this involves the question of what fiscal and budget strategy should be implemented.

The difficulty comes from the prioritization of objectives. If priority is given to immediately restoring the public accounts, then adding another burden due to the transfer of charges onto the tax grabs already taken from households will definitely run the risk of a collapse in demand. This means either admitting that such a transfer is really possible only in conditions of relatively strong growth and thus postponing it, or making the improvement of the trade deficit a priority over the public accounts and thus not tying our hands with a

budget target that is too tough.

The government has decided to stay the course of public deficit reduction, and has in fact postponed competitiveness shock by proposing, after a year or more, business tax credits that are to be offset by hikes in the VAT rate in particular. The underlying rationale is clear. The search for a balanced budget is supposed to guarantee a return to growth, but care is being taken about further weighing down demand by adding to the tax increases already enacted to meet the target of a 3% government deficit by 2013. The prevailing idea is that, aided by a wise budget, a pick-up in activity will take place within two years in line with the supposedly conventional economic cycle, which has the additional advantage of coinciding with the electoral cycle.

The path being chosen is narrow and, quite frankly, dangerous. Fiscal austerity measures are still subjecting domestic demand to heavy pressure. The restoration of business margins has been put off. Would it not be better to stagger the recovery of the public accounts more and ensure more immediate gains in competitiveness by using the appropriate fiscal tools?

The result to be expected from either of these strategies is of course highly dependent on the choices being made at the European level. Persevering on the path of widespread austerity will mean nothing good will happen for anyone.

### 2013: what impact will the

# (national) fiscal measures have on growth?

By Mathieu Plane

This text supplements the <u>October 2012 forecasts for the French economy</u>

After having detailed the multiplier effects expected for the different fiscal policy instruments, the average domestic fiscal multiplier associated with the austerity measures being implemented in France in 2013 will be 0.9. This policy will cut GDP by 1.7% in one year alone. After a cumulative fiscal effort of 66 billion euros in 2011 and 2012, the structural saving expected for 2013 represents about 36 billion euros (1.8 GDP points) if we include both the measures in the 2013 budget bill (Projet de loi de finances - PLF) and the various measures adopted previously (Table). The fiscal shock resulting from the PLF for 2013 comes to 28 billion euros, of which 20 billion is solely on tax and social security contributions (prélèvements obligatoires - PO). Of the remaining 8 billion, an increase of nearly 5 billion euros in tax and social security contributions is from the second supplementary budget (Loi de finances rectificative - LFR) for the summer of 2012, the rest being mainly due to the first LFR for 2012 and to the hike in contributions resulting from the revision of the pension reform in summer 2012.

In total, the fiscal effort in 2013 can be broken down between tax and social contributions of about 28 billion euros (1.4 GDP points) and structural savings on primary public expenditure of 8 billion (0.4 GDP point). The burden of higher taxes and social contributions breaks down to nearly 16 billion euros for households and more than 12 billion for business. This breakdown does not take into account the competitiveness measures announced on 6 November by the Prime

Minister. The tax credits for competitiveness and employment (CICE) will not have any fiscal impact in 2013, with the exception of the possible establishment in 2013 of an advance on their future tax credits for some companies short of cash.

Based on the variants in the fiscal multiplier, made with e-mod.fr according to the economy's position in the cycle, for the main taxes and social security contributions as well as for the key components of public expenditure [1] and based on the different evaluations we were able to carry out, particularly in the context of the assessment of the Five-year economic programme, we applied a specific fiscal multiplier to each measure for 2013 (Table). The short-term multipliers take into account only the direct effects of the measures on domestic activity, regardless of the fiscal policies of our trading partners, which amplify the impact of national policy. It is also assumed that monetary policy remains unchanged. The long-term multiplier values differ from the short-term ones, being generally lower unless a long-term negative output gap is maintained.

Of the 16 billion euro increase in tax and social security contributions on households in 2013, the discretionary increase in personal income tax (IR) will be 6.4 billion, including 3.2 billion from the 2013 Budget Act (Loi de finances) - against 4 billion in the PLF, as the proposal to tax capital gains on securities at the income tax scale will be largely amended, and the yield from the measure could decrease by about 0.8 billion, with the shortfall being able to be offset by the extension of the exceptional 5% contribution from the IS tax on large corporations), and with the rest coming from the supplemental LFR for 2012 (including 1.7 billion solely from the de-indexation of the personal income tax schedule). While the increase in personal income tax from the 2013 PLF is targeted at high earners, the amount this will contribute (3.2 billion) represents only 11% of the increase in tax and social security contributions (20% if we

limit ourselves to households) in 2013, and less than 9% of the total fiscal effort. According to our calculations, the average fiscal multiplier associated with the different measures that increase personal income tax will be 0.7 in 2013.

The increase in taxes and social contributions from households will come mainly from the increase in payroll taxes and social security contributions (8.7 billion euros) set out in the Social Security budget act (PLF) for 2013 (2.9 billion) and the measures in the supplemental LFR for 2013 (5.3 billion, which includes changes to the tax exemption on overtime, a limitation on tax breaks and employee savings, a higher CSG wealth tax on income from capital, etc.) and pension reform, with an increase in the contribution rate (0.5 billion). The average fiscal multiplier related to these measures is 0.9. Finally, the reform of inheritance tax will raise a further 1.1 billion in tax and social contributions. On the other hand, the revenue from the ISF wealth tax will be 1.3 billion lower than in 2012. Indeed, the yield from the one-off wealth tax contribution set up under the supplemental LFR for 2012 will be greater than from the one set up under the new reform in 2013. The fiscal multiplier for these two measures is 0.3.

In total, according to our calculations, the increase in levies on households in 2013 will on average have a multiplier of 0.8 and will amputate growth by 0.6 GDP point.

For business, the measures adopted mainly involve an increase in the corporate income tax as provided in the budget bill (PLF) for 2013 (8 billion euros, of which 4 billion is related to the reform of the deductibility of financial expenses). The average multiplier for the increase in the corporate income tax (IS) is estimated at 0.7 in 2013. 2.3 billion euros will come from a rise in social security contributions and payroll taxes with a fiscal multiplier of unity. Finally, other measures such as the sectoral measures on the taxation of insurance or the exceptional contribution of the oil industry

will increase the tax burden on business by 1.9 billion in 2013, with an average fiscal multiplier estimated at 0.5.

In our assessment, the increase in taxes and social contributions from companies will on average have a multiplier of 0.8 and will reduce GDP by 0.5 GDP point in 2013.

In addition, the short-term fiscal multiplier associated with public expenditure in a low phase of the cycle is, in our model, 1.3, so it is higher than that associated with tax and social contributions. This result is consistent with the most recent empirical literature (for details, see the box, "Fiscal multipliers: size matters!" The estimated loss of activity resulting from tightening up on public expenditure will come to 0.5 GDP point in 2013.

In total, the average domestic fiscal multiplier associated with the austerity policy being implemented in France in 2013 will be 0.9, and this policy will reduce GDP by 1.7%. This result is in the lower range of the <u>latest work of the IMF</u>; using recent data on 28 countries, it has estimated the actual multipliers at between 0.9 and 1.7 since the beginning of the Great Recession.

Main measures affecting the structural public deficit in 2013

	Measures (in bn)	Fiscal multiplier estimated in the short term	Impact on GDP (%)
Households	15.7	0.8	-0.6
Income tax	6.4	0.7	-0.2
PLF 2013 (taxation of capital income at IR tax rate, new brackets, etc.)*	3.2	0.6	-0.1
LFR II 2012 (reversal of tax exemption of overtime)	0.5	0.4	0.0
LFR I 2012 (de-indexation of IR brackets, suppression tax breaks and Scellier scheme, etc.)	2.7	0.8	-0.1
ISF wealth tax	-1.3	0.3	0.0
PPLF 2013 (reform of ISF wealth tax)	1.0	0.3	0.0
LFR II 2012 (repercussions from one-off 2012 contribution)	-2.3	0.3	0.0
Inheritance tax	1.1	0.3	0.0
LFR II 2012 (reversal of breaks on inheritance tax)	1.1	0.3	0.0
Social contributions and payroll tax	8.7	0,9	-0.4
Social security PLF 2013 (reform of self-employed payroll tax, higher tax on beer and tobacco, etc.)	2.9	1.0	-0.1
LFR II 2012 (reversal of overtime exemption, limitation of tax breaks and employee savings, higher CSG wealth tax, capital income, etc.)	5.3	0.8	-0.2
Pension reform (higher contributions)	0.5	1.0	0.0
Other	0.8	0.6	0.0
PLF 2013 (higher tax on vacant housing, tougher "automobile malus", etc.)	0.9	0.6	0.0
LFR II 2012 (lower VAT on books)	-0.1	1.0	0.0
Business**	12.2	0.8	-0.5
Corporate income tax	8	0.7	-0.3
PLF 2013 (limits on financial expenses deductibility, reform of the "cinquième acompte", etc.)	8	0.7	-0.3
Payroll tax and social contributions	2.3	1.0	-0.1
Social security PLF 2013 (higher CNRACL contribution rate, reform on wage tax, etc.)	1.8	1.0	-0.1
Pension reform	0.5	1.0	0.0
Other	1.9	0.5	-0.1
PLF 2013 (sectoral measures on taxation of business insurance (sectoral measures on taxation of business insurance)	1.3	0.8	-0.1
LFR II 2012 (one-off contribution of oil industry, taxation of financial transactions, etc.)	0.6	0.2	0.0
Total Business and Household Taxes and Contributions	27.9	0,8	-1,1
Structural saving on primary public expenditure	8.0	1.3	-0.5
Total fiscal impulse	35.9	0.9	-1.7
* This amount incorporates the downward revision of the yield initially fo	rocoon in the	DLC 2012 of the me	neuro tavin

<sup>\*</sup> This amount incorporates the downward revision of the yield initially foreseen in the PLF 2013 of the measure taxing capital gains at the personal income tax rate, which is to be offset by the extension of the exceptional 5% corporate income tax contribution for large corporations.

Sources: PLF 2013, Social security PLF 2013, LFR I and II 2012, OFCE calculations.

[1] For more on this, see Creel, Heyer, Plane, 2011, "Petit précis de politique budgétaire par tous les temps", Revue de l'OFCE, no. 116, January 2011.

<sup>\*\*</sup> This breakdown does not measure the final fiscal impact that is to be borne by households if the increase in business taxes is passed on in prices.

## What is the value of the fiscal multipliers today?

By Xavier Timbeau

We inherited higher public deficits and greatly increased public debts from the crisis (Table 1). Reducing these will require a major fiscal effort. But a programme that is too brutal and too fast will depress activity and prolong the crisis, not only compromising the fiscal consolidation effort but also locking the economies into a recessionary spiral. The value of the fiscal multiplier (the link between fiscal policy and economic activity) both in the short term and in the long term is thus a critical parameter for stabilizing the public finances and returning to full employment.

Public deficit and public debt 2007-2012

	Public deficit		Net public debt minus financial assets	
In GDP points	2012	Change 2012-2007	2012	Change 2012-2007
DEU	-0.9	-1.1	52	9
FRA	-4.5	-1.7	66	31
ITA	-1.7	-0.1	96	9
ESP	-5.4	-7.3	54	37
NLD	-4.3	-4.4	43	15
BEL	-2.8	-2.7	82	9
PRT	-4.6	-1.4	81	32
IRL	-8.4	-8.5	82	82
GRC	-7.4	-0.6	134	52
AUT	-2.9	-1.9	48	17
Euro area (EA11)	-3.0	-2.3	63	20
GBR	-7.7	-4.9	74	46
USA	-8.3	-5.3	85	37
JPN	-9.9	-7.8	134	54

Source: OECD, Economic outlook 91.

When the multiplier (in the short term) is greater than approximately 2 (actually 1/a, a being the sensitivity of the public deficit to the economic cycle and valued at about 0.5 in the developed countries), then fiscal cutbacks produce such a decrease in activity that the short-term deficit increases with the cuts. When the multiplier is greater than approximately 0.7 (in fact, 1/(a+d), d being the ratio of debt to GDP), then fiscal restraint increases ratio of debt to GDP in the short term. In the longer term, things get complicated, and only a detailed modelling can help to understand in what circumstances today fiscal restraint would lead to a sustained reduction in the debt-to-GDP ratio. The value of the multiplier in the medium term is of course crucial (it is usually assumed to be null, or zero, but in the case of costeffective public investment, this assumption does not hold), but hysteresis effects as well as changes in expectations about inflation or about sovereign interest rates (and therefore the critical gap, i.e. the gap between 10-year sovereign bond rates and the economy's nominal potential

growth rate) interact with changes in the debt and in GDP.

Until recently, most economists believed that the value of the multiplier depends on the composition of the fiscal stimulus (taxes, expenditure and the nature of taxes and expenditure), the size of the economy and its openness (the more open the economy, the lower its multiplier) and the existence of anticipations of a fiscal shock (an anticipated shock would have little effect, in the long term, it would have none, with only an unexpected shock having a temporary effect)[1]. Recent literature (since 2009) has taken an interest in the value of the fiscal multiplier in the short term in times of crisis. Two main conclusions emerge:

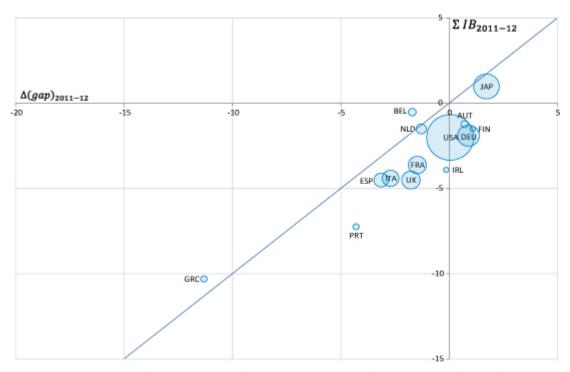
1. The multiplier is higher in "times of crisis" (in the short term or as long as the crisis lasts). In "times of crisis" means high unemployment or a very wide output gap. Another symptom may be a situation where safe longterm interest rates are very low (i.e. negative in real terms), suggesting a flight to safety (radical uncertainty) or a liquidity trap (expectations of deflation). Two theoretical interpretations consistent with these manifestations of the crisis. One, price expectations are moving toward deflation, radical uncertainty makes it impossible to form an expectation, which is consistent with very low safe interest rates and leads to the paralysis of monetary policy. Or second, more economic agents (households, firms) are subject to short-term liquidity constraints, perpetuating the recessionary spiral and preventing monetary policy from functioning. In one case as in the other, the fiscal multipliers are higher than in normal times because the expansionary fiscal policy (resp. restrictive) forces the economic agents to take on debt (resp. shed debt) collectively instead of individually. In "times of crisis" the multiplier is in play including when it is anticipated and its effect persists until a

- return to full employment.
- 2. The multiplier is higher for expenditures than it is for compulsory levies. The argument in normal times is that higher compulsory levies acts as a disincentive and spending cuts as an incentive on the supply of labour. In a small open economy, when monetary policy also induces a real depreciation of the currency, fiscal restraint can increase activity, a result that has long allowed supporters of fiscal discipline to promise all kinds of wonders. But in times of crisis, in addition to the fact that the multipliers are higher, the logic applicable in normal circumstances is reversed. The use of taxes as disincentives for the labour supply or spending cuts as incentives does not work in an economy dominated by involuntary unemployment or overcapacity. It is in fact the expectations of a recession or of deflation that act as disincentives, which is another factor indicating high multipliers.

Econometric estimates (based on past experience of "times of crisis") lead to retaining a fiscal multiplier of around 1.5 (for an average mix of spending and compulsory levies).

Taking together 2011 and 2012, years in which a very strong fiscal impulse was carried out, confirms this econometric evaluation. By comparing on the one hand changes in the output gap from end 2010 to 2012 (on the abscissa) and on the other hand the cumulative fiscal impulse for 2011 and 2012, we obtain the short-term impact of the fiscal consolidation. Figure 1 depicts this relationship, showing a close link between fiscal restraint and economic slowdown.

Graphe 1: Change in the output gap and the impulse 2011-2012



Source: OECD, Economic Outlook 91, June 2012. The year 2012 is a projection (OFCE forecast October 2012). The area of the bubbles is proportional to real GDP in 2011 (\$ PPP).

For most countries, the "apparent" multiplier is less than 1 (the lines connecting each of the bubbles are below the bisector, the "apparent" multiplier is the inverse of the slope of these lines). Figure 2 refines the evaluation. The changes in the output gap are in effect corrected for the "autonomous" dynamic of the closing of the output gap (if there had been no impulse, there would have been a closing of the output gap, which is estimated as taking place at the same rate as in the past) and for the impact of each country's budget cutbacks on the others through the channel of foreign trade. The bubbles in orange therefore replace the blue bubbles, integrating these two opposing effects, which are evaluated here while seeking to minimize the value of the multipliers. In particular, because the output gaps have never been so extensive, it is possible that the gaps are closing faster than what has been observed in the last 30 or 40 years, which would justify a more dynamic counterfactual and therefore higher fiscal multipliers.

Austria and Germany are exceptions. As these two countries

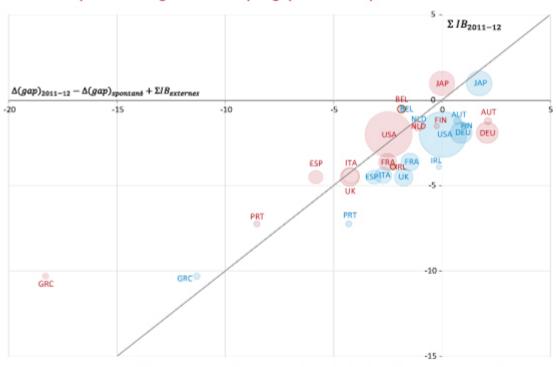
enjoy a more favourable economic situation (lower unemployment, better business conditions), it is not surprising that the multiplier is lower there. Despite this, the "corrected apparent" multiplier is negative. This follows either from the paradoxical effects of the incentives, or more likely from the fact that monetary policy is more effective and that these two countries have escaped the liquidity trap. But the correction provided here does not take into account any stimulus from monetary policy.

In the United States, the "2011-2012 corrected apparent" multiplier comes to 1. This "corrected apparent" multiplier is very high in Greece (~ 2), Spain (~ 1.3) and Portugal (~ 1.2), which is consistent with the hierarchy set out in point 1. This also suggests that if the economic situation deteriorates further, the value of the multipliers may increase, exacerbating the vicious circle of austerity.

For the euro zone as a whole, the "corrected apparent" multiplier results from the aggregation of "small open economies". It is thus higher than the multiplier in each country, because it relates the impact of the fiscal policy in each country to the whole zone and no longer just to the country concerned. The aggregate multiplier for the euro zone also depends on the composition of the austerity package, but especially to the place where the measures are being implemented. However, the biggest fiscal impulses are being executed where the multipliers are highest or in the countries in the deepest crisis. The result is that the aggregate multiplier for the euro zone is 1.3, significantly higher than that derived from the US experience.

A comparison of the fiscal plans for 2011 and 2012 with the economic cycle in those years yields a high estimate for the fiscal multipliers. This confirms the dependence of the multiplier on the cycle and constitutes a serious argument against the austerity approach, which is to be continued in 2013. Everything indicates that we are in a situation where

### austerity is leading to disaster.



Graphe 2: Changes in the output gap and the impulse 2011-2012

Source: OECD, Economic Outlook 91, June 2012. The year 2012 is a projection (OFCE forecast October 2012). The area of the bubbles is proportional to real GDP in 2011 (\$ PPP).

Il There has been an intense debate about the theoretical and especially the empirical validity of these assertions (see Creel, Heyer and Plane 2011 and Creel, Ducoudré, Mathieu and Sterdyniak 2005). Recent empirical work undertaken for example by the IMF has contradicted the analyses made in the early 2000s, which concluded that anti-Keynesian effects dominate Keynesian effects. Thus, at least with regard to the short term, before the crisis and in "normal times", the diagnosis today is that the fiscal multipliers are positive. The endogeneity of measurements of a fiscal impulse by simply varying the structural deficit interfered with the empirical analysis. The use of a narrative record of fiscal impulses addresses this issue and significantly alters estimates of the multipliers. In most macroeconomic models (including dynamic stochastic general equilibrium — DGSE — models), the fiscal

multipliers are also positive in the short term (on the order of 0.5 for a pure fiscal shock "in normal times"). In the long run, the empirical analysis does not tell us much, as the noise drowns out any possibility of measurement. The long term therefore reflects mainly an a priori theory that remains largely dominated by the idea that fiscal policy can have no long-term effect. However, in the case of public investment or of possible hysteresis, the assumption of a non-null effect in the long run seems more realistic.

# A review of the recent literature on fiscal multipliers: size matters!

### By <u>Eric Heyer</u>

Are the short-term fiscal multipliers being underestimated? Is there any justification for the belief that fiscal restraint can be used to drastically reduce deficits without undermining business prospects or even while improving the medium-term situation? This is this question that the IMF tries to answer in its latest report on the world economic outlook. The Fund devotes a box to the underestimation of fiscal multipliers during the 2008 crisis. While until 2009 the IMF had estimated that in the developed countries they averaged about 0.5, it now calculates that they have ranged from 0.9 to 1.7 since the Great Recession.

This reassessment of the value of the multiplier, which  $\underline{X}$ . <u>Timbeau discusses in an interesting reading</u> on the basis of a "corrected apparent" multiplier, builds on the numerous studies carried out by IMF researchers on the issue and especially that of <u>Batini</u>, <u>Callegari and Melina</u> (2012). In this article, the authors draw three lessons about the size of the fiscal multipliers in the euro zone, the U.S. and Japan:

- 1. The first is that gradual and smooth fiscal consolidation is preferable to a strategy of reducing public imbalances too rapidly and abruptly.
- 2. The second lesson is that the economic impact of fiscal consolidation will be more violent when the economy is in recession: depending on the countries surveyed, the difference is at least 0.5 and may be more than 2. This observation was also made in another study by the IMF (Corsetti, Meier and Müller (2012)) and is explained by the fact that in "times of crisis" more and more economic agents (households, firms) are subject to very short-term liquidity constraints, thus maintaining the recessionary spiral and preventing monetary policy from functioning.
- 3. Finally, the multipliers associated with public expenditure are much higher than those observed for taxes: in a recessionary situation, at 1 year they range from 1.6 to 2.6 in the case of a shock to public spending but between 0.2 and 0.4 in the case of a shock on taxes. For the euro zone, for example, the multiplier at 1 year was 2.6 if government spending was used as an instrument of fiscal consolidation and 0.4 if the instrument was taxation.

As the economic crisis continues, the IMF researchers are not the only ones raising questions about the merits of the fiscal consolidation strategy. In an NBER working paper in 2012, two researchers from Berkeley, <u>Alan J. Auerbach and Yuriy Gorodnichenko</u>, corroborate the idea that the multipliers are higher in recessions than in periods of expansion. <u>In a second study</u>, published in the *American Economic Journal*, these same

authors argue that the impact of a shock on public expenditure would be 4 times greater when implemented during an economic downturn (2.5) than in an upturn (0.6). This result has been confirmed for the US data by three researchers from the University of Washington in St. Louis (Fazzari et al. (2011)) and by two economists at the University of Munich (Mittnik and Semmler (2012)). This asymmetry was also found for the data on Germany in a study by a Cambridge University academic and a Deutsche Bundesbank researcher, Baum and Koester (2011).

In other work, a researcher at Stanford, Hall (2009), affirms that the size of the multiplier doubles and is around 1.7 when the real interest rate is close to zero, which is characteristic of an economy in a downturn, as is the case today in many developed countries. This view is shared by a number of other researchers, including two at Berkeley and Harvard, DeLong and Summers (2012), two from the Fed, Erceg and Lindé (2012), those of the OECD (2009), those of the European Commission (2012) and in some recent theoretical work (Christiano, Eichenbaum and Rebelo (2011), Woodford (2010)). When nominal interest rates are blocked by the zero lower bound, anticipated real interest rates rise. Monetary policy can no longer offset budgetary restrictions and can even become restrictive, especially when price expectations are anchored on deflation.

As already noted by J. Creel on this blog (insert link to the post of 22.02.12) with respect to the instrument to be used, i.e. public spending or taxation, other IMF economists together with colleagues from the European Central Bank (ECB) the US Federal Reserve (FED), the Bank of Canada, the European Commission (EC) and the Organization for Economic Cooperation and Development (OECD) compared their assessments in an article published in January 2012 in the American Economic Journal: Macroeconomics (Coenen G. et al. (2012)). According to these 17 economists, on the basis of eight different macroeconometric models (mainly DSGE models) for the United

States, and four models for the euro zone, the size of many multipliers is large, particularly for public expenditure and targeted transfers. The multiplier effects exceed unity if the strategy focuses on public consumption or transfers targeted to specific agents and are larger than 1.5 for public investment. For the other instruments, the effects are still positive but range from 0.2 for corporation tax to 0.7 for consumer taxes. This finding is also shared by the <u>European</u> Commission (2012), which indicates that the fiscal multiplier is larger if the fiscal consolidation is based on public expenditure, and in particular on public investment. These results confirm those published three years ago by the OECD (2009) as well as those of economists from the Bank of Spain for the euro zone (<u>Burriel et al (2010)</u>) and from the Deutsche Bundesbank using data for Germany (Baum and Koester (2011)). Without invalidating this result, a study by <u>Fazzari</u> et al (2011) nevertheless introduced a nuance: according to their work, the multiplier associated with public spending is much higher than that observed for taxes but only when the economy is at the bottom of the cycle. This result would be reversed in a more favourable situation of growth.

Furthermore, in their assessment of the US economy, researchers at the London School of Economics (LSE) and the University of Maryland, <u>Ilzetzki</u>, <u>Mendoza and Vegh (2009)</u>, highlight a high value for the fiscal multiplier for public investment (1.7), *i.e.* higher than that found for public consumption. This is similar to the results of other IMF researchers (<u>Freedman</u>, <u>Kumhof</u>, <u>Laxton and Lee (2009)</u>).

In the recent literature, only the work of Alesina, a Harvard economist, seems to contradict this last point: after examining 107 fiscal consolidation plans, conducted in 21 OECD countries over the period 1970-2007, Alesina and his coauthors (Ardagna in 2009 and Favero et Giavazzi in 2012) conclude first that the multipliers can be negative and second that fiscal consolidations based on expenditure are associated

with minor, short-lived recessions, while consolidations based on taxation are associated with deeper, more protracted recessions. In addition to the emphasis on the particular experiences of fiscal restraint (Scandinavian countries, Canada), which are not found when including all experiences with fiscal restriction (or expansion), the empirical work of Alesina et al. suffers from an endogeneity problem in the measurement of fiscal restraint.

The notion of a narrative record of fiscal impulse helps to avoid this endogeneity. For example, in the case of a real estate bubble (and more generally in cases of large capital gains), the additional tax revenues from the real estate transactions results in a reduction in the structural deficit, as these revenues are not cyclically based (the elasticity of revenues to GDP becomes much higher than 1). So these are associated with an expansionary phase (in conjunction with the housing bubble) and a reduction in the structural deficit, which artificially strengthens the argument that reducing the public deficit may lead to an increase in activity, whereas the causality is actually the reverse.

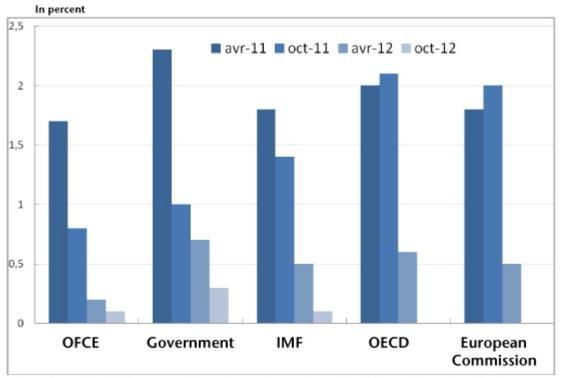
With the exception of the work of Alesina, a broad consensus emerges from the recent theoretical and empirical work in the existing economic literature: a policy of fiscal consolidation is preferable in periods of an upturn in activity, but is ineffective and even pernicious when the economy is at a standstill; if such a policy is to be enacted in a downturn, then tax increases would be less harmful to the activity than cuts in public spending ... all recommendations contained in Creel, Heyer and Plane (2011).

### Why has French growth been revised downwards?

By Bruno Ducoudré and Eric Heyer

In its October 2012 forecasts, the OFCE has revised its growth forecast for 2012 and 2013. The major international institutions, the OECD, the IMF and the European Commission, also regularly review their growth forecasts to incorporate newly available information. An analysis of these revised forecasts is particularly interesting in that it shows that these institutions use low fiscal multipliers in developing their forecasts. In other words, the recessionary impact of fiscal policy has been underestimated by the OECD, the IMF and the European Commission, leading to substantial revisions of their growth forecasts, as is evidenced by the dramatic shifts by the IMF and the European Commission in the size of the multipliers.

Graphique 1. Révisions of growth in French GDP for 2012



Note: Growth in 2012 is reviewed four times each year by each institution. The first revision took place in April 2011, the second in October 2011, the third in April 2012 and fthe final on in October 2012. The OECD has not yet published its latest revisions.

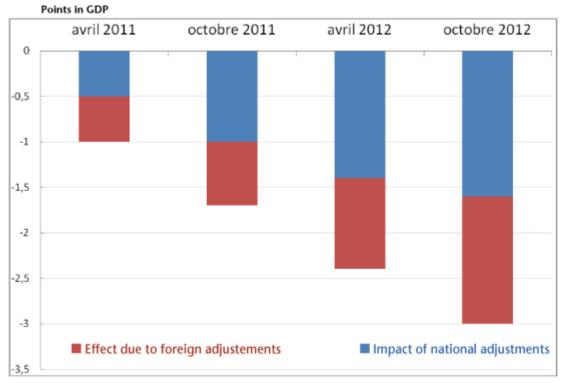
Sources: IMF, European Commission, OECD, OFCE October 2012 calculations and forecasts.

Figure 1 shows that between the forecast made in April 2011 and the latest available forecast, the government, like all the other institutions, revised its growth forecast for France sharply downwards.

The austerity policies have also been strengthened at the same time, particularly in the euro zone. The European countries undertook their stability program in order to return to balanced public finances within three years. In contrast to the years before the crisis, the implementation of these commitments is now considered a necessary or even sufficient condition for pulling out of the crisis. Moreover, in a context of financial uncertainty, being the only State not to meet its commitment to fiscal consolidation would be punished immediately by the markets (higher sovereign rates, a downgraded rating, a fine from the European Commission, implicit contagion of sovereign defaults). But in trying to reduce their deficits abruptly and synchronously, Europe's governments are inducing new slowdowns in activity.

A vicious circle has been created: with each downward revision in their forecasts for 2012 growth, Europe's governments implement new austerity measures to meet their deficit commitments. This has happened in France, but especially in Italy, which has virtually tripled its fiscal effort, and in Spain, which is now engaged in the greatest austerity effort of any major European country.

According to our estimates for the French economy (that is to say, using a multiplier of 1), the series of fiscal savings plans adopted at the national level have led to revising growth downwards by -1.1 points between April 2011 and October 2012 (from an impact of -0.5 GDP point to -1.6 points). Since these same policies are in force in our trading partners, this has led to revising growth for this same period by 0.9 point due to foreign trade (from -0.5 GDP point to -1.4 point) (Figure 2).



Graphique 2. Impact of the latest fiscal adjustments on 2012 growth

Source: OFCE October 2012 calculations and forecasts.

For the year 2012, the OFCE's revisions for the French economy can be explained in full simply by the escalation in the fiscal savings measures announced over the last 12 months,

*i.e.* the national plans and those applied by our partner countries (Table 1).

Tableau 1. Determinants of the revisions to the OFCE forecast for France for 2012

	April 2011	October 2012	Revision
GDP growth	1,7	0,1	-1,6
(a) - Austerity measures (in GDP pt)	-0,6	-1,60	-1,0
(b) – Value of the fiscal multiplier	0,95	0,95	0,0
Impact of austerity plans in France (a + b)	-0,5	-1,6	-1,1
Impact of the austerity measures of France's partners	-0,5	-1,4	-0,9
Other adjustment factors			0,4

Source: OFCE calculations.

Leaving aside this escalation of austerity, our diagnosis of the French economy has changed very little over the last 18 months: without it, we would have even revised our growth forecast slightly upwards (0.4%).

### Has monetary policy become ineffective?

By Christophe Blot, Catherine Mathieu and Christine Rifflart

This text summarizes the <u>special study</u> of the October 2012 forecast.

Since the summer of 2007, the central banks of the industrialized countries have intervened regularly to counter the negative impact of the financial crisis on the functioning of the banking and financial system and to help kick-start growth. Initially, key interest rates were lowered considerably, and then maintained at a level close to 0 [1]. In a second phase, from the beginning of 2009, the central

banks implemented what are called unconventional measures. While these policies may differ from one central bank to another, they all result in an increase in the size of their balance sheets as well as a change in the composition of their balance sheet assets. However, three years after the economies in the United States, the euro zone and the United Kingdom hit bottom, it is clear that recovery is still a ways off, with unemployment at a high level everywhere. In Europe, a new recession is threatening [2]. Does this call into question the effectiveness of monetary policy and of unconventional measures more specifically?

For almost four years, a wealth of research has been conducted on the impact of unconventional monetary policies [3]. Cecioni, Ferrero and Sacchi (2011) [4] have presented a review of recent literature on the subject. The majority of these studies focus on the impact of the various measures taken by the central banks on financial variables, in particular on money market rates and bond yields. Given the role of the money market in the transmission of monetary policy, the ability of central banks to ease the pressures that have emerged since the beginning of the financial crisis constitutes a key vector for effective intervention. More recently, this was also one of the reasons motivating the ECB to conduct an exceptional refinancing operation in two stages, with a maturity of 3 years. This intervention has indeed helped to reduce the tensions on the interbank market that had reappeared in late 2011 in the euro zone, and to a lesser extent in the United States and the United Kingdom (see graph). This episode seems to confirm that central bank action can be effective when it is dealing with a liquidity crisis.

Another critical area of debate concerns the ability of unconventional measures to lower interest rates in the long term and thereby to stimulate activity. This is in fact an important lever for the transmission of monetary policy. The findings on this issue are more mixed. Nevertheless, for the

United States, a study by Meaning and Zhu (2012) [5] suggests that Federal Reserve programs to purchase securities have contributed to lowering the rates on 10-year US Treasury bills: by 60 points for the first "Large-scale asset purchase" program (LSAP1) and by 156 points for LSAP2. As for the euro zone, Peersman [6] (2011) shows that the impact of unconventional measures on activity has in general closely resembled the effect of lowering the key interest rate, and Gianone, Lenza, Pill and Reichlin [7] (2012) suggest that the various measures taken by the ECB since the beginning of the crisis have helped offset the rise in the unemployment rate, although the impact is limited to 0.6 point.

Under these conditions, how is it possible to explain the weakness or outright absence of a recovery? One answer evokes the hypothesis of a liquidity trap [8]. Uncertainty is still prevalent, and the financial system is still so fragile that agents are continuing to express a preference for liquidity and safety, which explains their reluctance to undertake risky projects. Thus, even if financing conditions are favourable, monetary policy will not be sufficient to stimulate a business recovery. This hypothesis probably explains the timidity of the recovery in the United States. But in the euro zone and the United Kingdom this hypothesis needs to be supplemented with a second explanation that recognizes the impact of restrictive fiscal policies in holding back recovery. The euro zone countries, like the UK, are pursuing a strategy of fiscal consolidation that is undermining demand. While monetary policy is indeed expansionary, it is not able to offset the downward pressure of fiscal policy on growth.

Graphique. Tensions on the interbank markets\*



\* The tensions are measured by the spread between the interbank rates (Libor ou Euribor) and the overnight interest rate swap (OIS).

Source: Datastream.

- [1] One should not, however, forget the exception of the ECB, which prematurely raised its key interest rate twice in 2011. Since then it has reversed these decisions and lowered the key rate, which has stood at 0.75% since July 2012.
- [2] The first estimate of UK GDP for the third quarter of 2012 indicates an upturn in growth following three quarters of decline. However, this rebound is due to unusual circumstances (see <a href="Royaume-Uni: l'enlisement">Royaume-Uni: l'enlisement</a>), and activity will decline again in the fourth quarter.
- [3] Unconventional monetary policies have already been analyzed repeatedly in the case of the Bank of Japan. The implementation of equivalent measures in the United States, the United Kingdom and the euro zone has contributed to greatly amplifying the interest in these issues.
- [4] "Unconventional monetary policy in theory and in practice", Banca d'Italia Occasional Papers, no.102.
- [5] "The impact of Federal Reserve asset purchase programmes:

- another twist", BIS Quarterly Review, March, pp. 23-30.
- [6] "Macroeconomic effects of unconventional monetary policy in the euro area", ECB Working Paper no.1397.
- [7] "The ECB and the interbank market", CEPR Discussion Paper no. 8844.
- [8] See OFCE (2010) for an analysis of this hypothesis.