The tax credit to encourage competitiveness and jobs – what impact?

By Mathieu Plane

Following the submission to the Prime Minister of the Gallois Report on the pact for encouraging the competitiveness of French industry, the government decided to establish the tax credit to encourage competitiveness and jobs (“the CICE”). Based on the rising trade deficit observed over the course of the last decade, the sharp deterioration in business margins since the onset of the crisis and growing unemployment, the government intends to use the CICE to restore the competitiveness of French business and to boost employment. According to our assessment, which was drawn up using the e-mod.fr model as described in an article in the *Revue de l’OFCE* (issue 126-2012), within five years the CICE should help to create about 150,000 jobs, bringing the unemployment rate down by 0.6 point and generating additional growth of 0.1 GDP point by 2018.

The CICE, which is open to all companies that are assessed on their actual earnings and are subject to corporation tax or income tax, will amount to 6% of the total wage bill for wages below 2.5 times the minimum wage (SMIC), excluding employer contributions. It will come into force gradually, with a rate of 4% in 2013. The CICE’s impact on corporate cash flow will be felt with a lag of one year from the base year, meaning that the CICE will give rise to a tax credit on corporate profits from 2014. On the other hand, some companies could benefit in 2013 from an advance on the CICE expected for 2014. The CICE should represent about 10 billion euros for the 2013 fiscal year, 15 billion in 2014 and 20 billion from 2015. As for the financing of the CICE, half will come from additional savings on public spending (10 billion), the details of which have not been spelled out, and half from tax revenue, *i.e.* an increase in the standard and intermediate VAT rate from 1 January 2014 (6.4 billion) and stronger environmental taxation.

This reform is similar in part to a fiscal devaluation and in some respects bears similarities to the mechanisms of the "quasi-social VAT" (see Heyer, Plane, Timbeau [2012], "Economic impact of the quasi-social VAT" [in French]) that was set up by the Fillon government but eliminated with the change of the parliamentary majority as part of the second supplementary budget bill in July 2012.

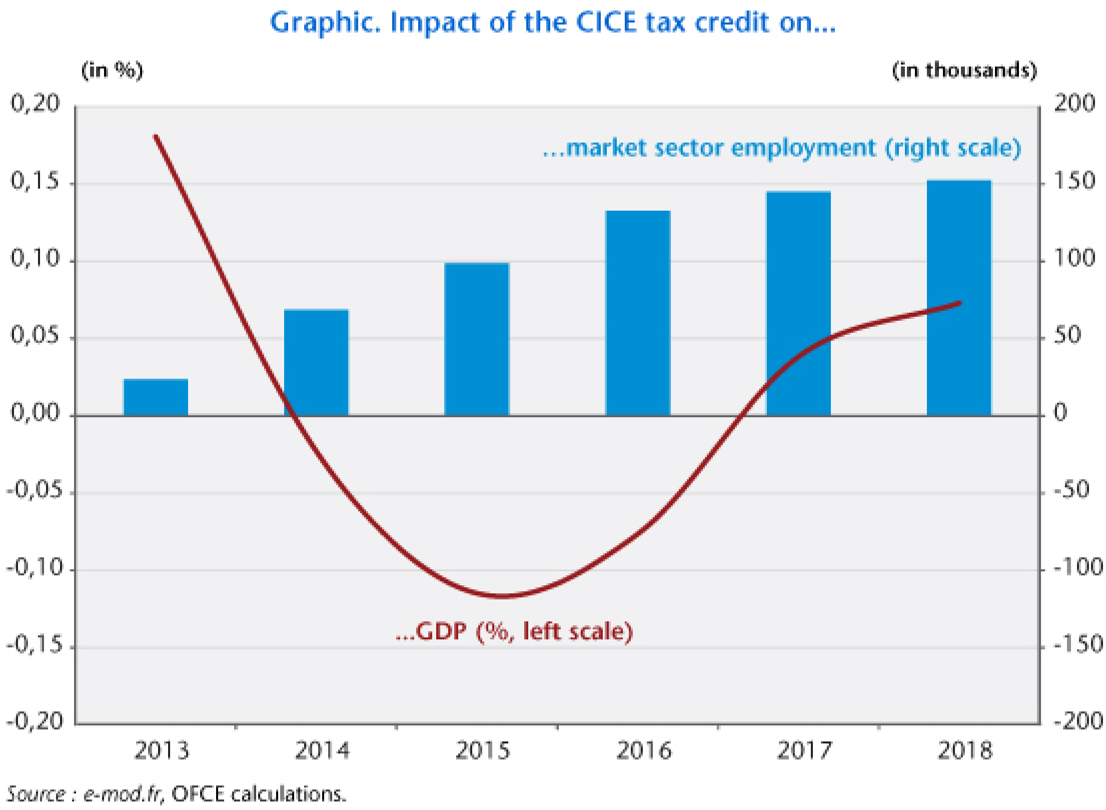
According to our calculations using 2010 DADS data, the CICE would lower average labour costs by 2.6% in the market sector. The sectors where labour costs would be most affected by the measure are construction (-3.0%), industry (-2.8%) and market services (-2.4%). The ultimate sectoral impact of the measure depends both on the reduction in labour costs and on the weight of wages in value added in a given sector. Overall, the CICE would represent 1.8% of the value added of industrial enterprises, 1.9% of the value added in construction and 1.3% in market services. In total, the CICE would represent 1.4% of the value added in market sector companies. According to our calculations, the total value of the CICE would be 20 billion euros: 4.4 billion in industry, 2.2 billion in construction and 13.4 billion for market services. Industry would therefore recover 22% of the total spending, *i.e.* more than its share of value added, which is only 17%. While this measure is intended to revive French industry, this sector would nevertheless not be the primary beneficiary of the measure in absolute value, but, along with the construction sector, has the best exposure relatively speaking due to its wage structure. Furthermore, industry can benefit from knock-on effects related to reductions in the prices of inputs generated by the lowering of production costs in other sectors.

The expected effects of the CICE on growth and employment differ in the short and long term (see graphic). By giving rights in 2014 based on the 2013 fiscal year, the CICE will have positive effects in 2013, especially as the tax hikes and public spending cuts will not take effect until 2014. The result will be a positive impact on growth in 2013 (0.2%), although it will take longer to affect employment (+23,000 in 2013) due to the time it takes employment to adjust to activity and the gradual ramping-up of the measure.

On the other hand, the impact of the CICE will be slightly recessive from 2014 to 2016, as the loss in household purchasing power linked to higher taxes and the cuts in public spending (household consumption and public demand will contribute -0.2 GDP point in 2014 and then -0.4 point in 2015 and 2016) will prevail over lower prices and the recovery of business margins. Apart from the first year, the CICE's positive impact on growth related to income transfers will be slow to be seen, as gains in market share related to lower prices and to higher business margins are dependent on a medium / long-term supply-side mechanism, with demand-side impacts being felt more rapidly.

The implementation of the CICE will gradually generate gains in market share that will make a positive contribution to activity by improving the foreign trade balance (0.4 GDP point in 2015 and 2016), whether through increased exports or reduced imports. From 2017, the external balance will not contribute as much to the economy (0.3 GDP point) due to the improved purchasing power of households, resulting in slowing the reduction in imports. Despite the higher margins and the improved profitability of capital, productive investment will fall off slightly due to the substitution effect between labour and capital and the negative accelerator effect related to the fall in demand.

With the decline in the cost of labour relative to the cost of capital, the substitution of labour for capital will gradually boost employment to the detriment of investment, which will lead to job-rich GDP improvements and to lower gains in productivity. This dynamic will result in steady gains in employment despite the slight fall-off in activity between 2014 and 2016. Due to the rise in employment and the fall in unemployment, but also to possible wage compensation measures in companies arising from the greater fiscal pressure on households, wages will regain part of their lost purchasing power based on an increase in real pay. This catch-up in purchasing power will help to generate growth, but will limit the impact on employment and productivity gains.



Is the euro crisis over?

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

As of early 2013, it is possible to make two contrasting assessments of the crisis. On the one hand, the euro has survived. Europe’s institutions and Member states have of course been slow and hesitant to react, and their reluctance has often fueled speculation. But its institutions have gradually managed to develop solidarity mechanisms, such as the European Financial Stability Facility and then the European Stability Mechanism, and they were able to impose strong fiscal discipline on Member states (strengthening the Stability and Growth Pact, adjustment programs, fiscal treaty).

The Member states have agreed to implement austerity policies and structural reforms. From the beginning of the crisis, the European Central Bank was willing to put in place unconventional policies, and it has supported the public debt of countries in difficulty by intervening in the secondary markets. It then undertook to commit unlimited resources to support countries in trouble that implemented satisfactory policies, which helped to reassure the financial markets and to lower risk premiums.

On the other hand, the euro zone has been unable to regain a satisfactory level of growth or to recover the 9 points of activity lost to the crisis. The Member states have been forced to implement austerity policies during a recession. According to the outlook of the Commission itself, the unemployment rate is expected to stay at about 11.8% in 2013. Imbalances between countries persist, even if they are somewhat mitigated by the deep depression that has engulfed the countries of southern Europe. The rigid standards that have been imposed on the Member states, with no real economic foundation, cannot replace the genuine coordination of economic policies. The solidarity mechanisms implemented are conditional on the loss of any autonomy and the introduction of drastic austerity policies. In the future, national policies will be paralyzed by European constraints and by the threats of the financial markets. Social Europe is not making progress, and, even worse, Europe is requiring countries in difficulty to call into question universal health care and to cut pension, unemployment and family benefits. Tax competition is continuing, and the crisis has not been seen as a time to challenge tax havens and tax evasion. While Europe is at the forefront of the fight against climate change, it is hesitating to make a robust commitment to the ecological transition. Although many countries in the area are suffering from continuing deindustrialization, no industrial policy has been implemented. A banking union will be established, but its content is not being democratically decided. The European authorities are persisting in a strategy – paralyzing national policies and imposing free market structural reforms – which has so far failed to boost growth and has made Europe unpopular. Europe is sorely lacking a socially unifying project, an economic strategy and a means of functioning democratically.

* Issue 127 of the "Debates et Politics" collection of the *Revue de l'OFCE*, which appeared in January, contains analyses that provide contrasting insights into the origins of the euro zone crisis and into strategies for resolving the crisis. This issue brings together twelve papers following the 9th EUROFRAME conference [1] in June 2012 on issues concerning the European Union's economic policy.

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[1] EUROFRAME is a network of European economic institutes, which includes: the DIW and IFW (Germany), WIFO (Austria), ETLA (Finland), OFCE (France), ESRI (Ireland), PROMETEIA (Italy), CPB (Netherlands), CASE (Poland) and NIESR (United Kingdom).

Spain: a lose-lose strategy

by Danielle Schweisguth

At a time when the IMF has publicly recognized that it underestimated the negative impact of fiscal adjustment on Europe's economic growth, Spain is preparing to publish its public deficit figure for 2012. The initial estimate should be around 8% of GDP, but this could be revised upwards, as was the case in 2011 – while the target negotiated with the European Commission is 6.3%. With social distress at a peak, only a sustainable return to growth would allow Spain to solve its budget problems through higher tax revenue. But the austerity being imposed by Europe is delaying the return of economic growth. And the level of Spain's fiscal multiplier, which by our estimates is between 1.3 and 1.8, is rendering the policy of fiscal restraint ineffective, since it is not significantly reducing the deficit and is keeping the country in recession.

At a time when the IMF has publicly recognized that it underestimated the negative impact of fiscal adjustment on Europe's economic growth – the famous fiscal multiplier – Spain is preparing to publish its public deficit for 2012. The initial estimate should be around 8% of GDP, but this could be revised upwards as was the case in 2011. If we exclude the financial support for the banking sector, which is not taken into account in the excessive deficit procedure, the deficit then falls to 7% of GDP. This figure is still higher than the official target of 6.3% that was the subject of bitter negotiations with the European Commission. Recall that until September 2011, the initial target deficit for 2012 was 4.4% of GDP. It was only after the unpleasant surprise of the publication of the 8.5% deficit for 2011 (which was later revised to 9.4%) – which was well above the official 2011 target of 6% of GDP – that the newly elected government of Mariano Rajoy asked the European Commission for an initial relaxation of conditions. The target deficit was then set by Brussels at 5.3% of GDP for 2012. In July 2012, pressure on Spain's sovereign rate – which approached 7% – then led the government to negotiate with the Commission to put off the 3% target to 2014 and to set a deficit target of 6.3% of GDP in 2012.

Tableau. Growth, fiscal impulse and the public deficit in Spain

	2007	2008	2009	2010	2011	2012
GDP growth (%)	3,5	0,9	-3,7	-0,3	0,4	-1,4
Fiscal impulse (% of GDP)	0,6	1,0	1,3	-2,2	-0,9	-3,3
Public deficit* (% of GDP)	1,9	-4,5	-11,2	-9,7	-9,4	-8,0

* The public deficit includes the financial support given to the banking sector.
Sources : Ministerio de Hacienda y Administraciones Publicas, OFCE forecast for 2012.

But the strategy of trying to reduce the deficit by 2.6 GDP points while in a cyclical downturn proved to be ineffective and even counter-productive. Furthermore, the result has not been worth the effort involved, even though the European authorities have praised it repeatedly. A succession of three consecutive years of austerity plans of historic proportions (2010, 2011 and 2012) has led to only a very small improvement in the budget balance (Table). The deficit was reduced by 3.2 percentage points in three years, while two years of crisis were enough to expand it by 13.3 points (from 2007 to 2009). The fiscal impulse was -2.2 percentage points of GDP in 2010, -0.9 point in 2011 and -3.3 points in 2012, or a total of 6.4 GDP points of fiscal effort (68 billion euros). Yet the crisis has precipitated the collapse of the real estate market and greatly weakened the banking system. Since then, the country has plunged into a deep recession: GDP has fallen by 5.7% since the first quarter of 2008, which puts it 12% below its potential level (assuming potential growth of 1.5% per year), with 26% of the workforce currently unemployed, in particular 56% of the young people.

The deterioration of Spain’s economic situation has hit tax revenue very hard. Between 2007 and 2011, the country’s tax revenues have fallen further than in any other country in the euro zone. Revenue declined from 38% of GDP in 2007 to 32.4% in 2011, despite a hike in VAT (2 points in 2010 and 3 points in 2012) and an increase in income tax rates and property taxes in 2011. The successive tax increases only slightly alleviated the depressive effect of the collapse of the tax base. VAT revenues recorded a sharp drop of 41% in nominal terms between 2007 and 2012, as did the tax on income and wealth (45%). In comparison, the decrease in tax revenue in the euro zone was much more modest: from 41.2% of GDP in 2007 to 40.8% in 2011. Finally, rising unemployment has undermined the accounts of the social security system, which will experience a deficit of 1 percentage point of GDP in 2012 for the first time in its history.

To compensate for the fall in tax revenue, the Spanish government had to take drastic measures to restrict spending to try to meet its commitments, including a 5% reduction in the salaries of civil servants and the elimination of their Christmas bonus; a hiring freeze in the public sector and increasing the work week from 35 to 37.5 hours (without extra pay); raising the retirement age from 65 to 67, along with a pension freeze (2010); a reduction of unemployment benefits for those who are unemployed more than seven months; and lowering severance pay from 45 days per year worked to 33 days (20 if the company is in the red). Even though household income has stagnated or declined, Spanish families have experienced a significant increase in the cost of living: a 5-point increase in VAT, higher electricity rates (28% in two years), higher taxes on tobacco and lower reimbursement rates for medicines (retirees pay 10% of the price and the employed 40% to 60%, depending on their income).

The social situation in Spain is very worrying. Poverty has increased (from 23% of the population in 2007 to 27% in 2011, according to Eurostat); households failing to pay their bills are being evicted from their homes; long-term unemployment has exploded (9% of the labour force); unemployed youth are a lost generation, and the best educated are emigrating. The VAT increase in September has forced households to tighten their budgets: spending on food declined in September and October 2012, respectively, by 2.3% and 1.8% yoy. Moreover, the Spanish health system is suffering from budget cuts (10% in 2012), which led to the closure of night-time emergency services in dozens of municipalities and to longer waiting lists for surgery (from 50,000 people in 2009 to 80,000 in 2012), with an average waiting time of nearly five months.

Social distress is thus at a peak. The movement of the *indignados* led millions of Spaniards to take to the streets in 2012, in protests that were often violently suppressed by riot police. The region of Catalonia, the richest in Spain but also the most indebted, is threatening to secede, to the consternation of the Spanish government. On 24 January, the Catalan government passed a motion on the region’s sovereignty, the first step in a process of self-determination that could lead to a referendum in 2014.

Only a lasting return to growth would enable Spain to solve its budget problems through higher tax revenue. But the tightening of financing conditions on Spain’s sovereign debt since the summer of 2012 has forced the government to strengthen its austerity policy, which is delaying the return to economic growth. Furthermore, the European Commission has agreed to provide financial assistance to Spain only if it renounces its sovereignty in budget matters, at least partially, which the government of Mariano Rajoy is still reluctant to accept. The initiative of the European Commission on the exclusion of capital expenditures from calculations of the public deficit for countries close to a balanced budget, the details of which will be published in the spring, is a step in the right direction (El Pais). But this rule would apply only to the seven countries where the fiscal deficit is below 3% of GDP (Germany, Luxembourg, Sweden, Finland, Estonia, Bulgaria and Malta), which leaves out the countries facing the most difficult economic situations. Greater awareness of the social dramas that underlie these poor economic performances should lead to greater respect for the fundamental rights of Europe's citizens. Moreover, in the 2013 iAGS report the OFCE showed that a restrained austerity policy (budget restrictions limited to 0.5 percent of GDP each year) is more effective from the viewpoint of both growth and deficit reduction in countries like Spain where the fiscal multipliers are very high (between 1.3 and 1.8, according to our estimates).

Superstars and fairness: Let the sky fall

By Guillaume Allègre

Are actors overpaid? A column by Vincent Maraval has launched a debate that is in essence ideological … in a good way. Indeed, it seems proper that high incomes need to be justified based on arguments that can convince the largest number of people. Pay levels cannot be fair unless they are publicly defensible. In this spirit, by drawing on an analysis of the economics of superstars, this post supports the idea that a small number of actors, and of artists in general, receive collectively constructed income, which justifies an intervention that is designed to reduce income inequalities.

How do you explain the huge revenues of a handful of singers or actors while most artists struggle to make a living from their work? The superstar effect has been analyzed by economists based on a seminal paper by Rosen (The Economics of Superstars). It is related to the structure of demand (by nature gregarious), technology (which allows broadcasting productions at a low cost) and the legal environment (which can be used to exclude stowaways or freeriders). To this we must add that the special position of entertainment stars allows them to capture a large share of the collectively constructed income. These characteristics justify a high level of income redistribution. It does not seem that this matter can be resolved satisfactorily just through the tax system: a tax rate of 75%, which is already viewed as confiscation, is not enough in an economy where superstars can earn 100 times as much as the average income – not to mention the risk of tax exile. Intervening directly in the institutional environment and on pay, especially for projects that receive public funds or assistance thus seems legitimate.

Is it fair that artists who are successful are subject, for example, to a tax rate of 75% for incomes of over a million euros, or is this just confiscatory? If this question can be raised for all activities, entertainment (artistic or sports) can be considered as a case study, because there is little doubt about spectators' willingness to pay, and there is no information asymmetry or principal-agent problems. The issue of the compensation of artists does not arise in the same way as, for example, business leaders who are engaged in activities whose contribution is difficult to estimate (*i.e.* their marginal productivity), and who can exercise control over the committees that set their pay: are the company's good results due to chance, to the work of the CEO, to the entire management team or to the effort of all the employees? Does the CEO's salary depend on their contribution or on their ability to convince the remunerations committee of their value? In a recent note, Galbraith makes a distinction between the case of Depardieu and that of business leaders [i]. In his book *Anarchy, State and Utopia*, Robert Nozick uses the transparency of the entertainment industry and takes the example of a superstar of the time, the basketball player Wilt Chamberlain (the book was published in 1974), to justify very high incomes. His argument is famous: if a million people are willing to pay 25 cents extra to see Wilt Chamberlain play, and he signs a contract with a basketball team offering to pay him 25 cents per ticket, giving him an income of $250,000, which is well above the median or average income at the time, is fair and legitimate. Redistributing this income would be immoral; freely consented inequalities must be respected.

But how do we explain the fact that many individuals are willing to pay so much for a particular artist, and nothing for most of the others? Where does this winner-take-all characteristic comes from? In other markets, if a service is perceived as having a slightly lower quality, many buyers are willing to buy it for a bit less than the high-quality service, so that a range of quality levels co-exist. In contrast, in the world of entertainment, a relative handful earn astronomical sums. In a seminal article, *The Economics of Superstars*(1981), Rosen explains this phenomenon by the structure of demand and production technology. What matters is that lesser talents cannot easily replace the greater talents (people would rather watch one top show than ten mediocre shows) and that the cost of production does not increase in proportion to the quantity supplied (the effort is the same whether 10 or 1000 people are in the audience or buy the book). In fact, according to Rosen, it is technology (especially television) which explains the sharp increase in the income of superstars. He concludes his article with these words: “What changes in the future will be wrought by cable, videocassettes, and home computers?”

The high incomes of superstars are not simply the result of a slightly superior talent (as in the model proposed by Rosen).

The studios are not simply paying for the incomparable talent of the actors in *Friends* or of Depardieu in *Astérix and Obelix at the Olympic Games*. Some actors actually manage to capture an income that is built in part by them but also by chance and by the behind-the-scenes work of many other contributors to the entertainment economy. The actors in *Friends* were able to negotiate significant wage increases as the series was renewed again and again. While under the season 1 contract each actor was paid 22,500 dollars per episode, they received $75,000 per episode in season 3, $100,000 in the fifth, $125,000 in the sixth, $750,000 in seasons seven and eight and one million dollars for the last two seasons, more than 40 times higher than in the first season, whereas the audience only doubled between the first and last season (source: [*Wikipédia*]). In season 2, the pay rates were negotiated individually, but the actors, including Jennifer Anniston and David Schwimmer, whose wages were well above those of the rest of the group, quickly realized the importance of collective bargaining: while the studio might manage to dispense with any individual actor (by replacing them or killing off their character), they could not replace the entire cast. Clearly, the 40-fold increase in income is not due to any exponential increase in the actors' talents, but to the fact that they have benefited from the commitment of the spectators to the series, a commitment that was forged by the actors but also by the work of the scriptwriters, designers, and directors in the early seasons. Because they embody the series and bargained collectively, the actors in *Friends* managed to capture for themselves an economic rent that was collectively constructed.

Similarly, if Depardieu has succeeded in establishing himself as a national figure, it is partly due to his talent but also due to the work of the many directors who have used him (and their scriptwriters, etc.). While it is difficult to explain the success of any particular cultural product, the element of chance or luck should not be overlooked. This is related to one of the characteristics of cultural products: they are generally more appreciated when the experience is shared because, as André Gunthert emphasises, cultural consumption gains meaning through its socialization (conversation, judgment, citation, re-use). Success thus breeds success, which explains phenomena of the type seen with the films *Les Intouchables* and *Bienvenue chez les Chtis,* whose success cannot be explained solely by the quality of the films. If in Rosen's model, we replace talent by audience (people prefer to watch one show with a large audience rather than ten shows with small audiences), a small initial advantage, which may be due to chance, but not only to chance, can turn into a phenomenon due to a snowball effect (Adler, 1985). In addition, the fact that televisions require stars to get co-financing for films, as Maraval explains, shows why celebrity is self-reinforcing and leads to a concentration of wealth in the hands of a few very well-known actors. The small initial advantage in terms of reputation is not necessarily due to pure chance, as can be seen by observing the number of sons and daughters in the profession, including the offspring of producers and directors. Stardom is also a status where you can enjoy a reputation that is "ill-gotten" and where negative buzz also provides visibility.

For the superstar effect to be converted into a high income, artists need to be able to exercise their intellectual property rights and exclude freeriders. The artists need a legal environment that legally recognizes and enforces their intellectual property rights [ii]. The fact that actors can capture a significant share of the income is partly a consequence of incomplete contracts and asymmetries in legislation on intellectual property. For example, California law prohibits contracts with terms of over seven years, which explains the jump in the remuneration of actors for series with long runs. Actors can also always threaten to quit, which constitutes a credible threat if they have gained enough reputation. The studios cannot contractually retain the anticipated benefits of this reputation. The actors also benefit from the fact that other people cannot or can no longer assert their right to intellectual property. Patents on television broadcasting technology have long been in the public domain: industrial property rights are much shorter (maximum 20 years) than artistic copyrights (70 years after the author's death in France and the United States).A certain number of ideas that contribute to the success of cultural products (films, series, etc.) are not copyrightable: we do not copyright a joke, a story, a way of filming or editing, or a concept or idea for a scenario. The fact that some players in the entertainment and cultural industry can capture an income is therefore not merely the natural consequence of differences in talent or an objective way of measuring the contribution of each, but flows largely from the specific provisions governing intellectual property rights that establish what is copyrightable or not, along with the duration of the protection. It is not at all clear, for example, that we should give celebrities the exclusive right to commercially use their public image (see Madow, 1993).

In addition to the protection of intellectual property rights, government intervention in the film industry can be considered to be massive (whether in the form of subsidies or regulations): investment quotas in the production and broadcasting of French-language cinematographic works for TV channels; the artist unemployment scheme, whose deficit is financed out of general taxation; tax incentives (SOFICA, tax credits); reduced VAT; aid from local authorities (regional, departmental and municipal) for filming, festivals and local cinemas ; and the financing of the CNC (mostly from industry revenues and already partly redistributive). Moreover, Coq *et al.* (2006) show that changes in regulations, which have favoured the goal of defending the market share of domestic films rather than pluralistic creation within the country, have led to a greater concentration of resources for expensive films, while the requirements placed on television exacerbate the superstar effect, as the networks are fond of stars.

From an economic viewpoint, two arguments thus justify redistribution of income: the capture of an economic rent constructed by many individuals and the element of chance (to which should be added the weight of public intervention in the cinema). In the presence of chance or risk, redistribution plays the role of an insurance, which can increase both the equity and efficiency of the system. From the viewpoint of equity, before the winners are revealed, risk-adverse individuals would be willing to socialize the risky gains. From the viewpoint of efficiency, too much risk leads to underinvestment on the part of very talented individuals who do not want to engage in an activity where there are too few chosen (and where they have too few connections). From the viewpoint of both equity and efficiency, the structure of the entertainment economy justifies a significant level of redistribution. This redistribution can take several forms: (1) universal taxation coupled with sector subsidies, (2) insurance, for example, based on the specific status of the entertainers, (3) minimum and / or maximum wages, in particular for projects receiving public funding or support (France Television, Regional Councils, etc. [iii]). Economists generally prefer the method of taxes or social insurance over direct interventions on wages, leaving the market to operate freely before redistributing income. The tax system also helps to avoid the arbitrary effects of thresholds when setting a maximum wage. However, in practice, fiscal redistribution faces a major limitation: once gross salaries are determined by the interaction between market forces and the institutional environment, they are generally considered legitimate; a high tax rate, *e.g.* 75%, may then be regarded as confiscatory, or as representing an “undue burden”, in the words of a recent decision of the Constitutional Council, even though such rates could clearly be insufficient to reduce the inequalities in a superstar economy where income differentials can reach ratios of 1 to 100. Reducing inequalities then requires direct intervention both in the institutional environment – for example, by reducing the duration of intellectual property rights – and on the determination of remuneration, which is all the more justified in a highly regulated and subsidized sector.

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[i] "In reality, the case of Depardieu is very different. He grew rich thanks to his talent. This is not the case of business leaders! Their revenue comes from companies that have earned money through a collective effort." From our perspective, there is a capture of a collectively-constructed economic rent in both cases.

[ii] In this sense, we must understand the libertarianism of Nozick as the absolute respect for individual property rights (which have a natural character). This is a long way from the libertarian liberalism that seeks to minimize external constraints, since in this case it is necessary for authority to enforce property rights. This explains why a contradictory mix of appeals to freedom and to authoritarianism stems from this doctrine.

[iii] As well as private television channels with respect to their obligations, as they benefit in return from the free use of the broadcast spectrum, which is similar to a public subsidy.

A recession is not inevitable

By Marion Cochard, Bruno Ducoudré and Danielle Schweisguth

The cold blast from the autumn forecasts continues with the publication of the European Central Bank's latest forecasts. Revising its growth outlook for the euro zone downwards (to

-0.3% for 2013, against the forecast of 0.9% in September), the ECB in turn is now pointing to the reinforced austerity measures and the growing impact of uncertainty in the financial markets. It is clear that the intensity of the fiscal consolidation is paralyzing growth in the euro zone through the interplay of the fiscal multipliers, while not managing to restore confidence. In this note we show that the recessionary spiral that the euro zone is getting sucked into is not an inevitability.

In the first edition of the 2013 iAGS report, which was produced in partnership with the German IMK institute and the Danish ECLM institute, the OFCE offers an alternative strategy to the current fiscal consolidation policy. This alternative would make it possible to restore growth in the medium term while still meeting the European budget commitments. As Jérôme Creel showed in his latest post, "Could France have a different fiscal policy?", there is room for budgetary manoeuvring in a way that is consistent with the current treaty framework.

Under the aegis of the European Commission, the European countries have pledged to continue their austerity programmes from 2013 to 2015 on a relatively large scale, especially if we take into account the efforts already made. Apart from Germany, where the cumulative fiscal impulse will be virtually nil, most European countries are planning to reduce their primary structural deficit by more than 2 GDP points between 2012 and 2015 (from -1.4 points for Finland to -7.5 points for Greece, cf. the table).

Table. Cumulative fiscal impulses in the euro zone

In GDP points

	Germany	France	Italy	Spain	Netherlands	Belgium	Greece	Portugal	Ireland	Austria	Finland
2010-2012	0,1	-4,1	-4,7	-7,0	-2,3	-1,5	-18,3	-9,1	-8,3	-1,1	-3,3
2013-2015	-0,3	-2,9	-2,1	-4,2	-2,9	-2,2	-7,5	-2,6	-5,7	-1,8	-1,4

Source : Eurostat data, iAGS simulations.

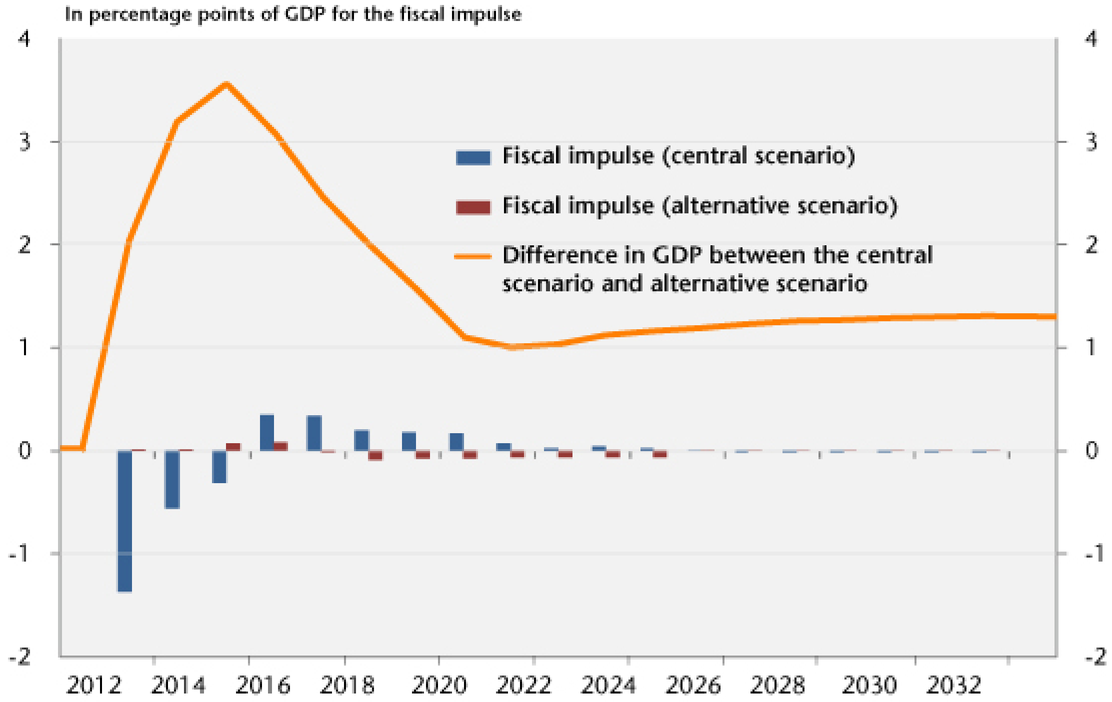
These adjustments are being undertaken in a very poor economic climate, which has been marked by austerity budgets from 2010 to 2012: growth in the euro zone will be -0.4% in 2012 and -0.3% in 2013. However, according to a series of recent theoretical and empirical studies[1], the fiscal multipliers turn upwards as the economic cycle heads downwards. In this context, the speed and magnitude of the fiscal adjustment is especially costly in terms of growth, and thus counter-productive in terms of the fiscal consolidation.[2] Encouraging a return to growth by easing the austerity would enable the economies of the euro zone to pull out of their recessionary spiral, which is marked by a steep rise in unemployment.

In order to develop this alternative strategy, we used the iAGS model to carry out simulations for the euro zone countries over a period of 20 years. These were conducted in two steps:

1. In our central scenario, we integrated the planned budget cuts announced by the various countries up to 2015. Starting from 2016, we calculated the fiscal impulses needed to achieve the 60% debt threshold by 2032, while limiting the size of these impulses to +/-0.5 GDP points per year. As shown in Figure 1 (central scenario), the structural adjustment carried out between 2010 and 2015 is significant enough in most countries to allow a relaxation of economic policy starting in 2016, while meeting the debt criterion by 2032.
2. For each country, we then decided on an alternative budget strategy by staggering the reduction of the structural deficit over time. This strategy consists in starting in 2013 with the implementation of fiscal impulses of a more limited amount in absolute value than those announced by the current governments (maximum +/-0.5 GDP points per year), and doing this until the

adjustment is sufficient to achieve the debt target of 60% of GDP by 2032. This strategy leads to more measured fiscal adjustment for the euro zone countries in difficulty and to slightly positive fiscal impulses in countries whose debt trajectory is in better shape (Germany, Finland, and Italy). For the zone as a whole, the fiscal impulse is almost zero in 2013 and 2014, with the bulk of the adjustment spread from 2017 to 2024.

Figure 1. Fiscal impulses and difference in GDP between the central and alternative scenarios

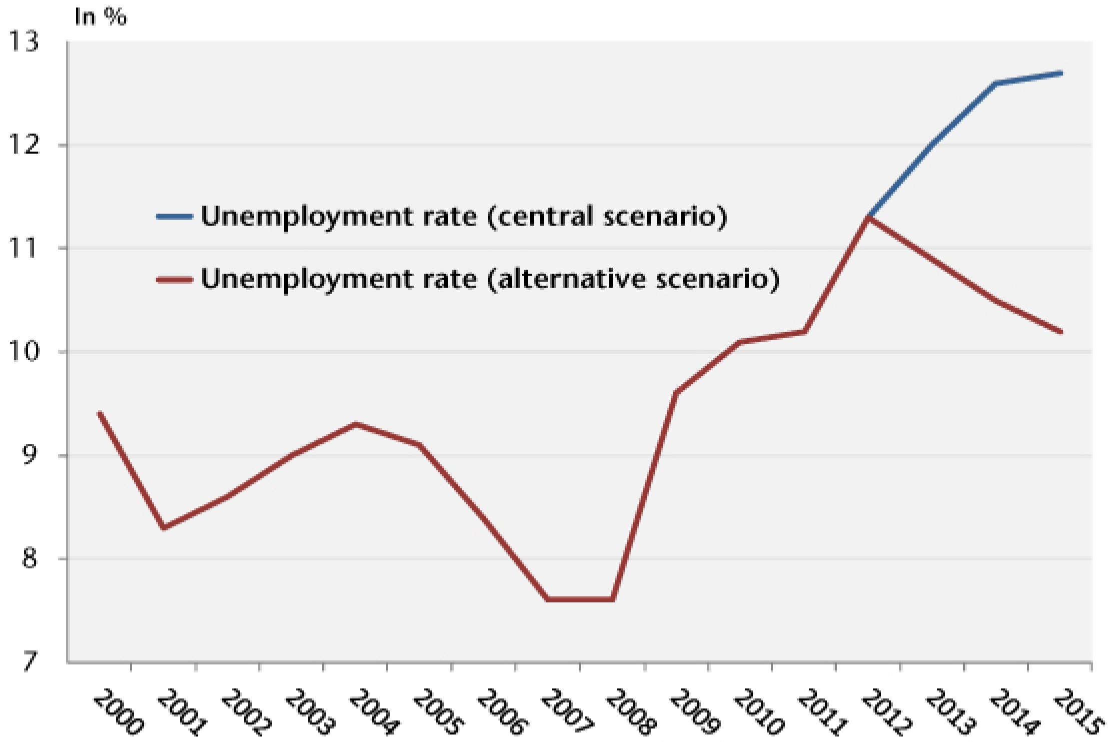


Source : iAGS, authors' calculation.

Figure 1 shows the difference in the level of GDP between the two scenarios. Limiting the size of the fiscal impulses helps to achieve a higher level of GDP and is compatible with a debt target of 60% of GDP by 2032 (alternative scenario). The effectiveness of the fiscal consolidation is enhanced when it is being conducted in an environment that is less unfavourable to the economy. This strategy achieves the same debt target with a cumulative fiscal adjustment that is 50 billion euros less than in the central scenario.

According to our calculations, the alternative scenario would restore a 2% growth rate in the euro zone in 2013, compared with -0.3% if the planned fiscal policies are carried out. The revival of activity would boost the labour market and help to turn around the unemployment rate in 2013, with a decline to 10.2% in 2015, compared with 12.8% if the austerity policies are continued, representing 3 million fewer unemployed people in 2015.

Graphique 2. Unemployment rate in the euro zone – Central and alternative scenarios



Source: Eurostat data, iAGS simulation.

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[1] A review of the recent literature on fiscal multipliers: size matters!

[2] What is the value of the fiscal multipliers today?

Repeat

By Jérôme Creel

In a beautiful book for children, every two pages Claude Ponti drew two chicks, one of which says to the other: “Pete and Repeat are in a boat. Pete falls overboard. Who is left?” Then the other chick says, “Repeat”, and off we go again. At the end of the book, the second chick, its eyes bulging, screams: “Repeat!” And it never stops. It’s a bit like these analyses of economic growth and fiscal contractions where almost every month it is rediscovered that the ongoing fiscal contractions are reducing economic growth or that underestimating the real impact of fiscal policy is leading to forecast errors.

Recently, and after having authored a box in the *2013 World Economic Outlook* in October 2012, Daniel Leigh and Olivier Blanchard of the IMF published a working document that confirms that the IMF’s recent forecasting errors are due to erroneous assumptions about the multiplier effect. Because this effect was underestimated, especially at the bottom of the economic cycle, the IMF forecasters, though they are not alone (see in particular the note by Bruno Ducoudré), underestimated growth forecasts: they had not anticipated that what was required by the austerity measures and their implementation would have such a negative impact on consumer spending and business investment. The attempt to reduce state debt was taking place during a period when households and businesses were also deleveraging, meaning that it would be difficult to avoid falling into the trap of recession.

Since it must be repeated, let’s repeat! “Expansionary-fiscal-contractions and Repeat are in a boat. Expansionary-fiscal-contractions falls overboard. Who is left in the boat?

Repeat!” In support of this short story, it is worth referring to a literature review conducted by Eric Heyer: he shows the extent of the consensus that actually exists on the value of the fiscal multipliers, a consensus that has emerged since 2009, *i.e.* in the midst of a recession and at the very time that recommendations for austerity measures began to emerge. A note by Xavier Timbeau shows that the analysis of current fiscal cutbacks supports an assessment that the value of the fiscal multiplier is much higher in a crisis than in normal times … What paradoxes!

What is to be done now? Repeat, yet again, that recession may not be inevitable: as Marion Cochard, Bruno Ducoudré and Danielle Schweisguth pointed out in a supplement to the 2013 iAGS report, it is urgent to temper existing fiscal austerity measures in the euro zone: European growth but also actual fiscal consolidation would improve at last.

The euro zone in crisis

By Catherine Mathieu and Henri Sterdyniak

The 9th EUROFRAME Conference [1], which was held in Kiel on 8 June 2012, focused on economic policy issues in the European Union. The topic was “The euro zone in crisis: Challenges for monetary and fiscal policies”. Issue 127 of the “Débats et Politiques” collection of the OFCE Revue has published revised versions of twelve papers presented in the Conference[2], gathered in five themes: exchange rate imbalances, indicators of the debt crisis, budget rules, banking and financial issues, and strategies for resolving the crisis.

The analysis of the origins of the euro zone crisis and economic policy recommendations to get out of the crisis have been the subject of great debate among economists, which was illustrated in the EUROFRAME Conference. In the course of these articles, the reader will see several fault-lines:

– For some, it is the irresponsible policies of the South that are the cause of the imbalances: they have allowed the development of wage and property bubbles, while the Northern countries have been implementing virtuous policies of wage austerity and structural reform. The Southern countries thus need to adopt the North's strategy and undergo a lengthy austerity cure. For others, the single currency has led to the development of twin opposing imbalances: this has led to under-valuing the economies of the North, which enabled them to offset their excessive policies on wage and social austerity with excessive external surpluses, and it has allowed the persistence of the South's external deficits; this has resulted in the need for a controlled convergence, whereby recovery in the North facilitates the absorption of the South's external imbalances.

– Some argue that each country must implement policies that combine a strong reduction in public spending – to absorb the budget deficits and reduce the public debt burden – with structural reforms (liberalization of the markets for goods and services, deregulation of the labour market) in order to offset the depressive effect on the labour market. The financial markets have to be allowed to impose the necessary discipline on the countries. Others hold that the public deficits have to be tolerated as long as necessary to support economic activity, public debt needs to be guaranteed by the European Central Bank (ECB) to ensure that domestic interest rates converge at low rates, and an EU-wide growth strategy is needed (in particular to finance the investments required for the ecological transition).

– Some even believe that we must avoid any further extension of European solidarity, as it would enable some countries to put off the reforms needed, which would lead to persistent imbalances and thus to money creation and inflation. Others argue that errors have been made on economic policy since the inception of the euro zone, and that these have led to sharp disparities in the zone, which now need to be reduced by means of a coherent solidarity strategy. Europe is one big family and must demonstrate its solidarity and accept compromises to continue to live together.

– For some, ending the debt crisis of the euro zone countries requires the establishment of a fiscal union, which means the establishment of binding rules enshrined in the Fiscal Pact and a certain degree of fiscal federalism; the European Commission and Council should have a say on the fiscal policies of the Member States. Others think that the Member States should have a degree of autonomy to practice the fiscal policy they choose; this is a matter of both democracy and economic efficiency: the economic situations of the different countries are too diverse to invoke a uniform fiscal policy; what is needed is the open coordination of economic policy, without rigid pre-established standards on public finances, with the aim of ensuring satisfactory growth and the winding down of external imbalances.

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[1] EUROFRAME is a network of European economic institutes, which includes: the DIW and IFW (Germany), WIFO (Austria), ETLA (Finland), OFCE (France), ESRI (Ireland), PROMETEIA (Italy), CPB (Netherlands), CASE (Poland), NIESR (United Kingdom).

[2] Ten of which are in English and two in French.

Valuing energy savings fairly

By Evens Salies [1]

Following the first meeting of the *Commission mixte paritaire* (a joint commission of the two houses of the French Parliament) on the proposed legislation to "make the transition to a sound energy system", it is important to examine the reasons that led the Senate to adopt a motion on 30 October 2012 to dismiss this bill. This rejection is based on errors of judgment that reflect the difficulty of defining a residential energy pricing that is efficient and fair in light of the government's objectives to control energy demand. It also seems appropriate to seek clarification of whether the proportional pricing in force needs to be corrected in order to reward energy savings.

The opposition of the parliamentarians focuses on the following point: the bonus-malus system breaches the principle of equal treatment of citizens regarding access to energy.[2] This argument is reminiscent of the annulment by the Constitutional Council in 2009 of the carbon tax.[3] It is nevertheless surprising, since the principle of equal treatment is not fully respected by the current system of tariffs. In practice, each household pays two local taxes on their final consumption of electricity. However, the taxes differ from one town or department to another, for reasons that are difficult to explain. The Senators also criticized the progressivity of the bonus-malus system that is to be superposed on the current rates, treating it as a hidden tax. There seems to be little grounds for this criticism in that the social tariffs already introduce some progressivity.[4]

The innovative element of the bill concerns the compatibility between the proportional pricing in force and the valuation of energy savings. Between households of similar composition who are subscribers at the same rate, there is already a reduction for the household that controls its usage. But is this reduction sufficient to compensate for the effort? In other words, should we consider that a kilowatt-hour of savings that costs an effort has the same economic value, in absolute terms, as a kilowatt-hour that is simply consumed? Everything depends on whether the savings in question is considered a gain or a loss. For households in the latter situation, the savings is seen as a cost. So the savings is not made, which is why the bonus-malus system would be effective. The others do not need an added incentive.

The bonus-malus system does not simply offer a discount (bonus) that is to be funded by the overages. [5] It also aims to inform individual households about their behaviour, *i.e.* whether it is virtuous or not, which is consistent with several recent observations in the literature: a household does not base its energy consumption on tiny marginal pricings, which are counted in centimes per kilowatt / hour and which people understand only imperfectly. Changes in the amount of the energy bill and announcements of price fluctuations play a greater role. Bonuses and penalties thus matter less as absolute values than as signals sent to households by their relative values on the invoice.

The superposition of the bonus-malus system on the rates in effect will of course initially simply amplify the gaps in spending between users. But the bonus that would apply on the bill of households whose behaviour benefits everyone is no less legitimate than the discounts enjoyed by households who changed suppliers once the retail energy markets were opened to competition.

Unfortunately, the rejection of the Brottes bill has ended any educational discussion about the relationship between energy efficiency and residential energy pricing. The lack of enthusiasm for the topic in the public debate is easy to perceive from reading the recent, voluminous report of the Commission of Inquiry on the actual cost of electricity. This is not so surprising in a sector where innovation is encouraged more on the supply side. The *effacement diffus* scheme is the latest example.[6] But without innovation in the structure of energy tariffs too, will France be able to achieve its goal of reducing energy consumption?

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[1] The author would like to thank Marcel Boiteux, Marc-Kévin Codognet, Jérome Creel, Gilles Le Garrec, Marcelo Saguan and Karine Chakir. The opinions expressed in this note are the responsibility of the author alone.

[2] This principle is ensured by tariff equalization: the schedule of tariffs is the same regardless of the place of residence.

[3] On the grounds that this tax violates the equality of taxpayers with respect to the public tax burden.

[4] Crampes, C., Lozachmeur, J.-M., 10 Sept 2012, “Les tarifs progressifs de l’électricité, une solution inefficace”, *Le Monde*.

[5] In the case where the sum of the penalties is not enough to cover the bonuses, the State will finance the deficit. And even in the absence of a deficit, as the distribution of virtuous consumers is not necessarily the same from one provider to another, an equalization of the bonus-malus balances should be applied so that everyone ends up with a zero balance.

[6] This consists of interrupting the power to a radiator or boiler for 10 or 15 minutes.

Human capital policies and inequality in recessions' times

By Francesco Vona

Not only economic crises reduce citizens' current welfare, but might as well hinder the long-run economic potential leading to an excessive destruction of physical and human capital. This long-run effect is definitely the big risk European economies are facing in this prolonged phase of recession. Economists often take a different standpoint for investments in human capital: recessions are claimed to have a positive rather than a negative effect on skill formation because higher unemployment frees up time for schooling. What they take for granted is that the choice of staying longer in school is not constrained by the increased difficulty in affording tuition fees, living expenditures and the opportunity cost of not working, particularly for less wealthy households. If this is taken into account, the likelihood that the positive effect prevails depends on public policies as public expenditures in education are needed to offset for the reduced spending capacity of households. The austerity measures imposed to countries at greater risk of default by the European institutions make it more difficult to maintain an appropriate flow of public expenditures in education.

So far, however, the standard view of a positive effect of recessions on skill formation is in line with data (Oecd, *Education at Glance 2012*). In the majority of European countries, including the most financially exposed ones, both enrollment rates at all levels of education and public expenditures in education as a proportion of public expenditures are held unchanged (or increased) one year after the crisis. Unfortunately, updated data until 2012 are not available to evaluate long-term country responses[1]. However, a reversal of this trend is likely to occur in next years if further budget cuts are carried out in indebted states. Signals in this direction have already emerged in budget cuts just implemented in Italy and Spain, two of the countries already with a relatively low level of subsidies for less advantaged students compared to the EU average (Usher and Cervanen, 2005). Poor households are likely to bear the costs of these cuts the most as they heavily rely on public support to overcome stringent liquidity constraints. Equity considerations in access to education are of paramount importance as students from good family backgrounds have a significantly higher probability to acquire higher degrees and to enter elite institutions in virtually all European countries (see Raitano and Vona, 2010). Even leaving aside equity considerations, it would be exceedingly difficult in this context to pursue the target of the Lisbon agenda, 'making Europe the most competitive knowledge-based economy in the world', without interventions aimed at improving the quality of European educational systems from which long-run growth crucially depends.

To make hands meet and reconcile equity with improving quality, market-based solutions have been proposed. The main goal is to drain fresh, mainly private, resources into slack educational systems and, at the same time, to increase competition as a discipline device for improving quality. *The Economist*, for instance, recently supported a voucher system that would enable students to choose between public and private institutions[2]. For university education, another proposal under consideration in many countries (see Ichino and Terlizzese 2012, for Italy) and already adopted in many others (see Dearden *et al.* 2008) is to combine higher tuition fees, that would reduce the burden on the public budget, and a system of contingent student loans to be repaid depending on future incomes. It is claimed that such a system would increase fairness. While educational systems in Europe certainly need substantial interventions to increase quality, it is not warranted that these reforms would go in the right direction.

On the voucher system, it should be observed that the existing quality of private schools in EU countries is not higher than the one of public schools. Considering PISA (Program for International Student Assessment) test scores as a standardized measure of quality, We estimate the impact of private schools on average test at the school level controlling for confounding factors at the school and the country level (family background, country-level policies, class size, school location, see for details Raitano and Vona, 2010). From this analysis, it emerges clearly that public schools outperform private ones in reading, science and math scores. Therefore, a simple reallocation of resources towards the private sector would lead to a decrease in overall quality. Put it differently, the private sector is not ready to take the lead for reforming the educational system in EU countries, hence creating a larger market for private schools might even be inefficient. It is also questionable whether a voucher system would really succeed in increasing the students' choices in presence of limited slots for best schools and priority given to those residents in the school neighborhood.

On the income-contingent scheme, it certainly improves loan-based schemes that tend to select out students with both low propensity to risk and self-esteem, such as typically those from marginal ethnic groups or poor family background. Indeed, conditioning loan repayments to future income reduces the uncertainty of human capital investments and so should work particularly well for disadvantaged students. However, the perception of the risks involved might not be reduced enough to induce people to invest, particularly when the loan taken is relatively large (as it would be for the increase in the fees) and when other lifelong loans such as mortgages are expected to be undertaken in the future. In addition, since disadvantaged students make the choice of starting university in an unfavorable position in terms of existing skills and competencies, their expectations on future earnings might be so low to not justify the risk, though partial, of paying for university education. Even if these problems of income-contingent schemes can be somehow corrected, for instance in the UK they are complemented by a grant for disadvantaged students (Dearden *et al.,* 2008), they can hardly favour an effective equalization of educational opportunities.

These critiques do not imply that human capital policies and the European educational system are well designed and dynamic enough. Particularly for university education, increasing competition for scarce resources and decentralization in decision-making can help in creating highly innovative institutions, but not to increase equal access for all. In particular for the issue of equality of opportunity, it is well known that it is better achieved intervening early in the educational stream (Cunha and Heckman 2007, Heckman and Bas 2010). According to this view, policies imposing the share of less well-off students in elite universities, as it has been recently proposed for France and experimented in Brazil, seem to perform poorly both for equity and efficiency.

In times of crisis, an alternative way to make the European system more dynamic, to prevent an excessive destruction of human capital and to increase equality of opportunity is (obviously as it might be) to target the issue at the European level. However, ‘inclusive’ interventions to enhance the competences of less rich pupils are not at zero cost, but typically require large scale public investments in the crucial phase of pre-primary education and, later one, targeted interventions in marginal schools of poor neighborhoods. A large scale public intervention can be done launching EU bonds conditioned to certain strategic goal such as the finance kindergarten for all European kids or targeted interventions in marginal schools. Incidentally, these 'conditioned bonds' would probably appear far more acceptable for skeptic citizens of Nordic countries. EU resources for these goals can also be drained by gradually phasing out the expensive Community Agricultural Policy, which absorbs more than 1/3 of the EU budget, and by devoting a fraction of structural funds for targeted interventions in marginal primary and secondary schools. Clearly, targeted EU policies for skill formation, especially of the less well-off, would also have a positive effect on growth by increasing the share of students with good basic skills and so the effectiveness of lifelong training policies, which crucially depends on the level of basic skills.

With these policies for increasing equality of opportunity in place, the effect of reforms aimed at increasing competition among universities using a combination of loans, higher tuition fees and premia depending on academic records can not only be fairer, but also remarkably more effective by enlarging the pool of potential candidates for good universities and enhancing the lifelong learning potential of EU citizens.

Further readings:

Raitano, M. and Vona, F., 2010. Peer Heterogeneity, Parental Background and Tracking: Evidence from PISA 2006. *Documents de travail de l'OFCE* 23-2010.

Dearden, L., Fitzsimons, E., Goodman, A., Kaplan, G., 2008. Higher Education Funding Reforms in England: The Distributional Effects and the Shifting Balance of Costs. *Economic Journal* vol. 118(526).

Cunha, F., and Heckman, J., 2007. The Technology of Skill Formation. *American Economic Review* 97(2).

Heckman, J., and Bas, J., 2009. Policies to Create and Destroy Human Capital in Europe. *IZA Discussion Papers* 4680, Institute for the Study of Labor.

Usher, P., and Cervanen, A., 2005. *Global higher education rankings: Affordability and accessibility in comparative perspective*. Washington, Toronto: Educational Policy Institute.

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[1] Eurostat has data updated to 2010, see http://appsso.eurostat.ec.europa.eu/nui/setupModifyTableLayout.do. As it is evident looking at the percentage of public expenditures in education as a percentage of GDP, only in Italy one can observe a timid -0.1% decline between 2007 and 2010.

[2] http://www.economist.com/node/21564556

Revising the multipliers and revising the forecasts – From talk to action?

By Bruno Ducoudré

Following on the heels of the IMF and the European Commission

(EC), the OECD has also recently made a downward revision in its forecast for GDP growth in the euro zone in 2012 (-0.4%, against -0.1% in April 2012) and in 2013 (0.1%, against 0.9% in April 2012). In its latest forecasting exercise, the OECD says it now shares with the other international institutions (the IMF [i] and EC [ii]) the idea that the multipliers are currently high in the euro zone [iii]: the simultaneous implementation of fiscal austerity throughout the euro zone while the economy is already in trouble, combined with a European Central Bank that has very little leeway to cut its key interest rate further, is increasing the impact of the ongoing fiscal consolidation on economic activity.

The revision of the positioning of the three institutions poses two questions:

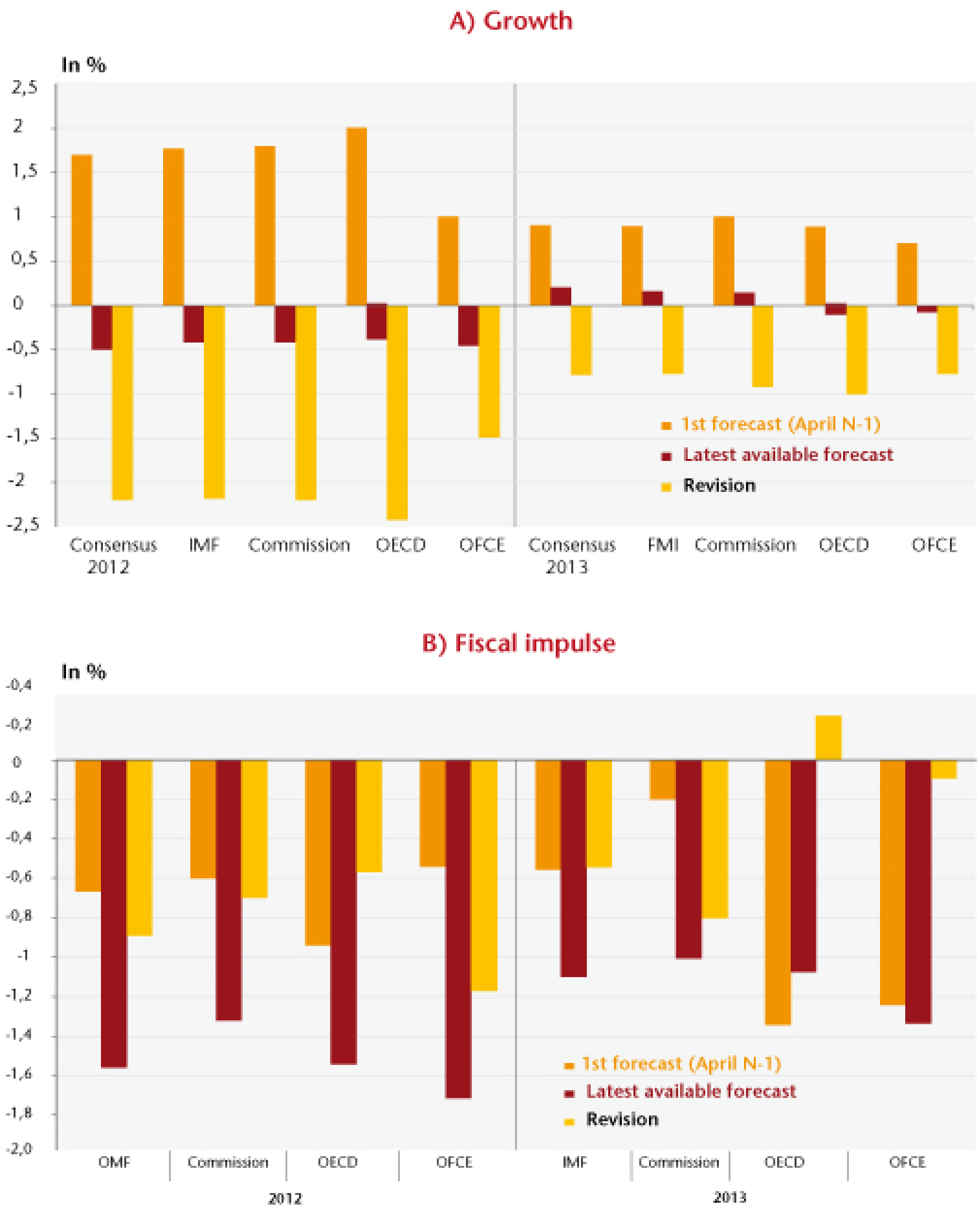
- – What are the main factors leading to the revision of the growth forecasts? Given the scale of the austerity measures being enacted in the euro zone, we can expect that the revised forecast of the fiscal impulses is a major determinant of the revisions to the growth forecasts. These revisions are, for example, the main factor explaining the OFCE's revisions to its growth forecasts for France in 2012.
- – Is this change in discourse concretely reflected in an upward revision of the multipliers used in the forecasting exercises? These institutions do not generally specify the size of the multipliers used in their forecasting. An analysis of the revisions to the forecasts for the euro zone in 2012 and 2013 can, however, tell us the extent to which the multipliers have been revised upwards.

The following graph shows that between the forecast made in April of year N-1 for the euro zone and the latest available forecast for year N, the three institutions have revised their forecast sharply downward, by -2.3 points on average in 2012 and -0.9 point on average in 2013.

At the same time, the fiscal impulses have also been revised, from -0.6 GDP point for the OECD to -0.8 GDP point for the IMF for 2012, and by 0.8 point for the Commission to +0.2 point for the OECD in 2013, which explains some of the revisions in growth for these two years.

Comparatively speaking, for 2012 the OFCE is the institute that revised its growth forecast the least, but which changed its forecast for the fiscal impulse the most (-1.7 GDP points forecast in October 2012, against the forecast of -0.5 GDP point in April 2011, a revision of -1.2 points). In contrast, for 2013 the revision in the growth forecast is similar for all the institutions, but the revisions of the impulses are very different. These differences may thus arise in part from the revision of the multipliers.

Figure. Forecasts of growth and of the fiscal impulse for the euro zone*



* For each of the two years, the first forecast is for April N-1. The latest forecast is the one for October / November 2012 (IMF, OFCE, OECD, European Commission) or September 2012 (Consensus Forecast).
The fiscal impulse is defined as the opposite of the change in the primary balance corrected for any cyclical variation.
Sources: Consensus Forecast, IMF, European Commission, OECD, OFCE calculations and forecast October 2012.

The revisions of the growth forecasts $\breve{g}$ can be broken down into several terms:

- – A revision in the fiscal impulse IB, denoted ΔIB;
- – A revision in the multiplier k, denoted Δk, k_0 being the initial multiplier and k_1 the revised multiplier;
- – A revision of the spontaneous growth in the euro zone

(excluding the impact of fiscal policy), of fiscal impulses outside the euro zone, etc.: *Δe*

$$\Delta\tilde{g} = \Delta\tilde{\varepsilon} + \Delta(\mathrm{k}.IB) = \Delta\tilde{\varepsilon} + \Delta\mathrm{k}.IB + \mathrm{k}.\Delta IB$$

The revision of the OFCE forecast by -1.5 points for 2012 that took place between April 2011 and October 2012 breaks down as follows: -1.3 points from the revision of the fiscal impulses, and -0.3 point from the upward revision of the multiplier (table). The sum of the effects of the other sources of revision adds 0.1 percentage point growth in 2012 compared with the forecast made in April 2011. In contrast, the revision for 2013 is due mainly to the increase in the size of the multiplier.

As for the international institutions, these elements (size of the multiplier, spontaneous growth, etc.) are not all known to us, except for the fiscal impulses. There are a number of polar cases that can be used to infer an interval for the multipliers used in the forecasting. In addition, if it is mainly revisions of the fiscal impulse and revisions of the size of the multiplier that are the source of the revision of the growth forecasts, as a first approximation it can be assumed that Δe = 0. We can then calculate the implied multiplier for the case that the entirety of the revision is attributed to the revision of the fiscal impulses, and for the case that the revision is divided between the revision of the multiplier and the revision of the impulse.

Attributing the entirety of the revisions of the forecasts for 2012 to the revision of the impulses would imply very high initial multipliers, on the order of 2.5 for the IMF to 4.3 for the OECD (Table), which is not consistent with the IMF analysis (which evaluates the current multiplier at between 0.9 and 1.7). On the other hand, the order of magnitude of the inferred multipliers for the IMF (1.4) and the Commission (1.1) for the year 2013 seems closer to the current consensus, if we look at the current literature on the size of the multipliers.

The hypothesis could also be made that in the recent past the Commission, the OECD and the IMF based themselves on multipliers derived from DSGE models, which are generally low, on the order of 0.5 [1]. Adopting this value for the first forecasting exercise (April 2011 for the year 2012 and April 2012 for 2013), we can calculate an implicit multiplier such that the entirety of the revisions breaks down between the revision of the impulse and the revision of the multiplier. This multiplier would then be between 2.8 (OECD) and 3.6 (EC) for the year 2012, and between 1.3 (OECD and IMF) and 2.8 (EC) for 2013.

Table. Breakdown of the revisions in the growth forecasts for the euro zone

Revision of the OFCE forecasts							
		$\Delta\tilde{g}$	$\Delta k.IB$	$k.\Delta IB$	$\Delta\tilde{\varepsilon}$	k_0	k_1
2012		-1.5	-0.3	-1.3	0.1	1.1	1.6
2013		-0.8	-0.7	-0.1	0.0	1.1	1.6
The entire revision is attributed to the revision of the impulse							
		$\Delta\tilde{g}$	$\Delta k.IB$	$k.\Delta IB$	$\Delta\tilde{\varepsilon}$	k_0	k_1
IMF	2012	-2.2	0.0	-2.2	0.0	2.5	2.5
	2013	-0.7	0.0	-0.8	0.0	1.4	1.4
Commission	2012	-2.2	0.0	-2.2	0.0	3.1	3.1
	2013	-0.9	0.0	-0.9	0.0	1.1	1.1
OECD	2012	-2.4	0.0	-2.4	0.0	4.3	4.3
	2013	-1.0	0.0	-1.0	0.0	-4	-4
The entire revision is attributed to the revision of the multiplier							
		$\Delta\tilde{g}$	$\Delta k.IB$	$k.\Delta IB$	$\Delta\tilde{\varepsilon}$	k_0	k_1
IMF	2012	-2.2	-1.7	-0.4	0.0	0.5	3.1
	2013	-0.7	-0.4	-0.3	0.0	0.5	1.3
Commission	2012	-2.2	-1.9	-0.4	0.0	0.5	3.6
	2013	-0.9	-0.5	-0.4	0.0	0.5	2.8
OECD	2012	-2.4	-2.2	-0.3	0.0	0.5	2.8
	2013	-1.0	-1.1	0.1	0.0	0.5	1.3
The final multiplier is valued at 1.3							
		$\Delta\tilde{g}$	$\Delta k.IB$	$k.\Delta IB$	$\Delta\tilde{\varepsilon}$	k_0	k_1
IMF	2012	-2.2	-0.5	-0.4	-1.2	0.5	1.3
	2013	-0.7	-0.4	-0.3	0.0	0.5	1.3
Commission	2012	-2.2	-0.5	-0.4	-1.4	0.5	1.3
	2013	-0.9	-0.2	-0.4	-0.3	0.5	1.3
OECD	2012	-2.4	-0.8	-0.3	-1.4	0.5	1.3
	2013	-1.0	-1.1	0.1	0.0	0.5	1.3

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

The revisions of the forecast for 2012 are not primarily drawn from a joint revision of the fiscal impulses and the size of the multipliers. A significant proportion of the revisions for growth also comes from a downward revision for spontaneous growth. Suppose now that the final multiplier is worth 1.3 (the average across the range estimated by the IMF); the revision of the spontaneous growth in the euro zone then accounts for more than 50% of the revision in the forecast for the euro zone in 2012, which reflects the optimistic bias common to the Commission, the OECD and the IMF. In comparison, the revision of spontaneous growth accounts for less than 10% of the revision in the OFCE forecast for 2012.

On the other hand, the size of the multipliers inferred from the revisions of the forecasts for 2013 appears to accord with the range calculated by the IMF – on the order of 1.1 for the Commission, 1.3 for the OECD and 1.3 to 1.4 for the IMF. The revisions of the growth forecasts for 2013 can therefore be explained mainly by the revision of the fiscal impulses planned and the increase in the multipliers used. In this sense, the controversy over the size of the multipliers is indeed reflected in an increase in the size of the multipliers used in the forecasting of the major international institutions.

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[1] See, for example, European Commission (2012): "Report on public finances in EMU", *European Economy* no. 2012/4. More precisely, the multiplier from the QUEST model of the European Commission is equivalent to 1 the first year for a permanent shock to public investment or civil servant pay, 0.5 for other public expenditure, and less than 0.4 for taxes and transfers.

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[i] See, for example, page 41 of the World Economic Outlook of the IMF from October 2012: "The main finding … is that the multipliers used in generating growth forecasts have been systematically too low since the start of the Great Recession, by 0.4 to 1.2, depending on the forecast source and the

specifics of the estimation approach. Informal evidence suggests that the multipliers implicitly used to generate these forecasts are about 0.5. So actual multipliers may be higher, in the range of 0.9 to 1.7."

[ii] See, for example, page 115 of the European Commission's Report on Public finances in EMU: "In addition, there is a growing understanding that fiscal multipliers are non-linear and become larger in crisis periods because of the increase in aggregate uncertainty about aggregate demand and credit conditions, which therefore cannot be insured by any economic agent, of the presence of slack in the economy, of the larger share of consumers that are liquidity constrained, and of the more accommodative stance of monetary policy. Recent empirical works on US, Italy, Germany and France confirm this finding. It is thus reasonable to assume that in the present juncture, with most of the developed economies undergoing consolidations, and in the presence of tensions in the financial markets and high uncertainty, the multipliers for composition-balanced permanent consolidations are higher than normal."

[iii] See, for example, page 20 of the OECD Economic Outlook from November 2012: "The size of the drag reflects the spillovers that arise from simultaneous consolidation in many countries, especially in the euro area, increasing standard fiscal multipliers by around a third according to model simulations, and the limited scope for monetary policy to react, possibly increasing the multipliers by an additional one-third."