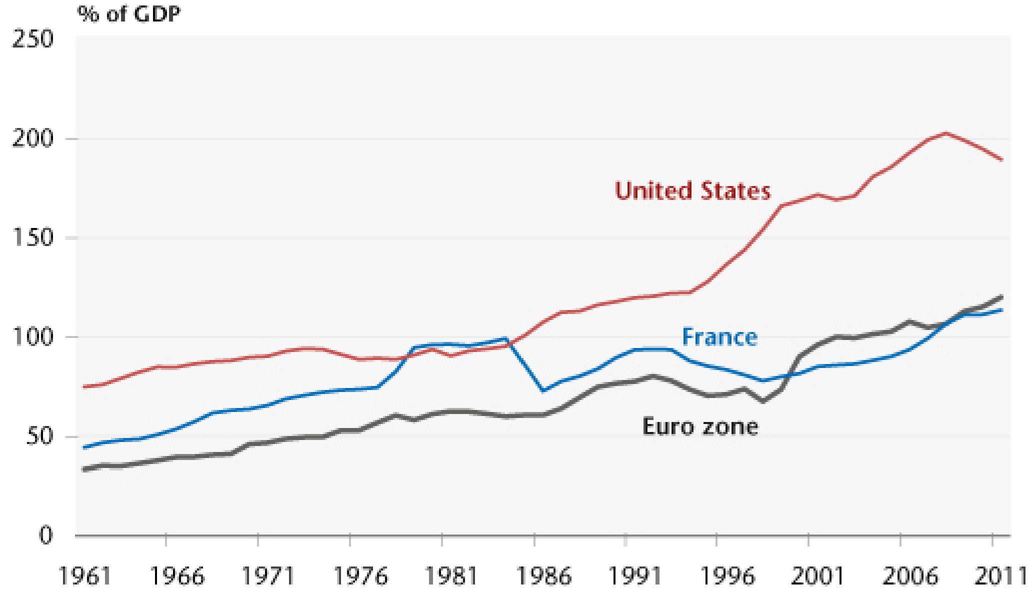
Does too much finance kill growth?

By Jérôme Creel, Paul Hubert and Fabien Labondance

Is there an optimal level of financialization in an economy? An IMF working paper written by Arcand, Berkes and Panizza (2012) focuses on this issue and attempts to assess this level empirically. The paper highlights the negative effects caused by excessive financialization.

Financialization refers to the role played by financial services in an economy, and therefore the level of indebtedness of economic agents. The indicator of the level of financialization is conventionally measured by calculating the ratio of private sector credit to GDP. Until the early 2000s, this indicator took into account only the loans granted by deposit banks, but the development of shadow banking (Bakk-Simon *et al.*, 2012) has been based on the credit granted by all financial institutions. This indicator helps us to understand financial intermediation (Beck *et al.*, 1999) [1]. The graph below shows how financialization has evolved in the euro zone, France and the United States since the 1960s. The level has more than doubled in these three economies. Before the outbreak of the subprime crisis in the summer of 2007, loans to the private sector exceeded 100% of GDP in the euro zone and 200% in the United States.

Figure. Credit granted to the private sector by banks and other financial institutions



Source : World Bank.

Arcand, Berkes and Panizza (2012) examined the extent to which the increasingly predominant role played by finance has an impact on economic growth. To understand the importance of this paper, it is useful to recall the existing differences in the findings of the empirical literature. On the one hand, until recently the most prolific literature highlighted a positive causal relationship between financial development and economic growth (Rajan and Zingales, 1998, and Levine, 2005): the financial sector acts as a lubricant for the economy, ensuring a smoother allocation of resources and the emergence of innovative firms. These lessons were derived from models of growth (especially endogenous) and have been confirmed by international comparisons, in particular with regard to developing countries with small financial sectors.

Some more skeptical authors believe that the link between finance and economic growth is exaggerated (Rodrik and Subramanian, 2009). De Gregorio and Guidotti (1995) argue that the link is tenuous or even non-existent in the developed countries and suggest that once a certain level of economic wealth has been reached, the financial sector makes only a marginal contribution to the efficiency of investment. It abandons its role as a facilitator of economic growth in order to focus on its own growth (Beck, 2012). This generates major banking and financial groups that are "too big to fail", enabling these entities to take excessive risks since they know they are covered by the public authorities. Their fragility is then rapidly transmitted to other corporations and to the economy as a whole. The subprime crisis clearly showed the power and magnitude of the effects of correlation and contagion.

In an attempt to reconcile these two schools of thought, a nonlinear relationship between financialization and economic growth has been posited by a number of studies, including in particular the Arcand, Berkes and Panizza (2012) study. Using a dynamic panel methodology, they explain per capita GDP growth by means of the usual variables of endogenous growth theory (*i.e.* the initial GDP per capita, the accumulation of human capital over the average years of education, government spending, trade openness and inflation) and then add to their model credit to the private sector and the square of this same variable in order to take account of potential non-linearity. They are thus able to show that:

1. The relationship between economic growth and private sector credit is positive;
2. The relationship between economic growth and the square of private sector credit (that is to say, the effect of credit to the private sector when it is at a high level) is negative;
3. Taken together, these two factors indicate a concave relationship – a bell curve – between economic growth and credit to the private sector.

The relationship between finance and growth is thus positive up to a certain level of financialization, and beyond this threshold the effects of financialization gradually start to become negative. According to the different specifications estimated by Arcand, Berkes and Panizza (2012), this threshold (as a percentage of GDP) lies between 80% and 100% of the level of loans to the private sector. [2]

While the level of financialization in the developed economies is above these thresholds, these conclusions point to the marginal gain in efficiency that financialization can have on an economy and the need to control its development. Furthermore, the argument of various banking lobbies, *i.e.* that regulating the size and growth of the financial sector would negatively impact the growth of the economies in question, is not supported by the data in the case of the developed countries.

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[1] While this indicator may seem succinct as it does not take account of disintermediation, its use is justified by its availability at international level, which allows comparisons. Furthermore, more extensive lessons could be drawn with a protean indicator of financialization.

[2] Cecchetti and Kharroubi (2012) clarify that these thresholds should not be viewed as targets, but more like “extrema” that should be reached only in times of crisis. In “normal” times, it would be better that debt levels are lower so as to give the economies some maneuvering room in times of crisis.

Austerity in Europe: a change of course?

By Marion Cochard and Danielle Schweisguth

On 29 May, the European Commission sent the members of the European Union its new economic policy recommendations. In these recommendations, the Commission calls for postponing the date for achieving the public deficit goals of four euro zone countries (Spain, France, Netherlands and Portugal), leaving them more time to hit the 3% target. Italy is no longer in the excessive deficit procedure. Only Belgium is called on to intensify its efforts. Should this new roadmap be interpreted as a shift towards an easing of austerity policy in Europe? Can we expect a return to growth in the Old Continent?

These are not trivial matters. An OFCE Note (no. 29, 18 July 2013) attempts to answer this by simulating three scenarios for fiscal policy using the iAGS model. It appears from this study that postponing the public deficit targets in the four euro zone countries does not reflect a real change of course for Europe's fiscal policy. The worst-case scenario, in which Spain and Portugal would have been subject to the same recipes as Greece, was, it is true, avoided. The Commission is implicitly agreeing to allow the automatic stabilizers to work when conditions deteriorate. However, for many countries, the recommendations with respect to budgetary efforts still go beyond what is required by the Treaties (an annual reduction in the structural deficit of 0.5 percent of GDP), with as a consequence an increase of 0.3 point in the unemployment rate in the euro zone between 2012 and 2017.

We believe, however, that a third way is possible. This would involve adopting a "fiscally serious" position in 2014 that does not call into question the sustainability of the public debt. The strategy would be to maintain a constant tax burden and to allow public spending to keep pace with potential growth. This amounts to maintaining a neutral fiscal stimulus between 2014 and 2017. In this scenario, the public deficit of the euro zone would improve by 2.4 GDP points between 2012 and 2017 and the trajectory in the public debt would be reversed starting in 2014. By 2030, the public deficit would be in surplus (0.7%) and debt would be close to 60% of GDP. Above all, this scenario would lower the unemployment rate significantly by 2017. The European countries could perhaps learn from the wisdom of Jean de La Fontaine's fable of the tortoise and the hare: "*Rien ne sert de courir, il faut partir à point*", *i.e.* Slow and steady wins the race.

France: why such zeal?

By Marion Cochard and Danielle Schweisguth

On 29 May, the European Commission sent the members of the European Union its new economic policy recommendations. As part of this, the Commission granted France an additional two years to reach the deficit reduction target of 3%. This target is now set for 2015, and to achieve this the European Commission is calling for fiscal impulses of -1.3 GDP points in 2013 and -0.8 point in 2014 (see "Austerity in Europe: a change of course?"). This would ease the structural effort needed, since the implementation of the previous commitments would have required impulses of -2.1 and -1.3 GDP points for 2013 and 2014, respectively.

Despite this, the French government has chosen not to relax its austerity policy and is keeping in place all the measures announced in the draft Finance Act (PLF) of autumn 2012. The continuing austerity measures go well beyond the Commission's recommendations: a negative fiscal impulse of -1.8 GDP point, including a 1.4 percentage point increase in the tax burden for the year 2013 alone. Worse, the broad guidelines for the 2014 budget presented by the government to Parliament on 2 July 2013 point to a structural effort of 20 billion euros for 2014, *i.e.* one percentage point of GDP, whereas the Commission required only 0.8 point. The government is thus demanding an additional 0.6 GDP point fiscal cut, which it had already set out in the multi-year spending program in the 2013 Finance Act.

The table below helps to provide an overview of the effort and of its impact on the French economy. It shows the trends in growth, in unemployment and in the government deficit in 2013 and 2014, according to three budget strategies:

1. One using the relaxation recommended by the Commission in May 2013;
2. One based on the budget approved by the government for 2013 and, *a priori*, for 2014;
3. One based on an alternative scenario that takes into account the negative 1.8 GDP point fiscal impulse for 2013 and calculates a fiscal impulse for 2014 that would be sufficient to meet the European Commission's public deficit target of -3.6%.

The different scenarios for deficit reduction in France

In %

	Relaxation (1)		Approved budget (2)		Alternative scenario (3)	
	2013	2014	2013	2014	2013	2014
Fiscal impulse	-1.3	-0.8	-1.8	-1.0	-1.8	-0.2
Unemployment rate	10.5	10.6	10.7	11.1	10.7	10.5
Growth	0.2	1.3	-0.2	1.0	-0.2	1.7
Public deficit	-4.3	-3.6	-3.9	-3.1	-3.9	-3.6

Source : Authors' calculations based on the iAGS model.

According to our estimates using the iAGS model [1], the public deficit would be cut to 3.1% of GDP in 2014 in scenario (2), whereas the Commission requires only 3.6%. As a consequence of this excess of zeal, the cumulative growth for 2013 and 2014 if the approved budget is applied would be 0.7 percentage point lower than growth in the other two scenarios (0.8 point against 1.5 points). The corollary is an increase in unemployment in 2013 and 2014: the unemployment rate, around 9.9% in 2012, would thus rise to 11.1% in 2014, an increase of more than 350,000 unemployed for the period. In contrast, the more relaxed scenario from the European Commission would see a quasi-stabilization of unemployment in 2013, while the alternative scenario would make it possible to reverse the trend in unemployment in 2014.

While the failure of austerity policy in recent years seems to be gradually impinging on the position of the European Commission, the French government is persisting along its same old path. In the face of the social emergency that the country is facing and the paradigm shift that seems to be taking hold in most international institutions, the French government is choosing to stick to its 3% fetish.

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[1] iAGS stands for the Independent Annual Growth Survey. This is a simplified model of the eleven main economies in the euro zone (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain). For more detail, see the working document Model for euro area medium term projections.

Competitiveness: danger zone!

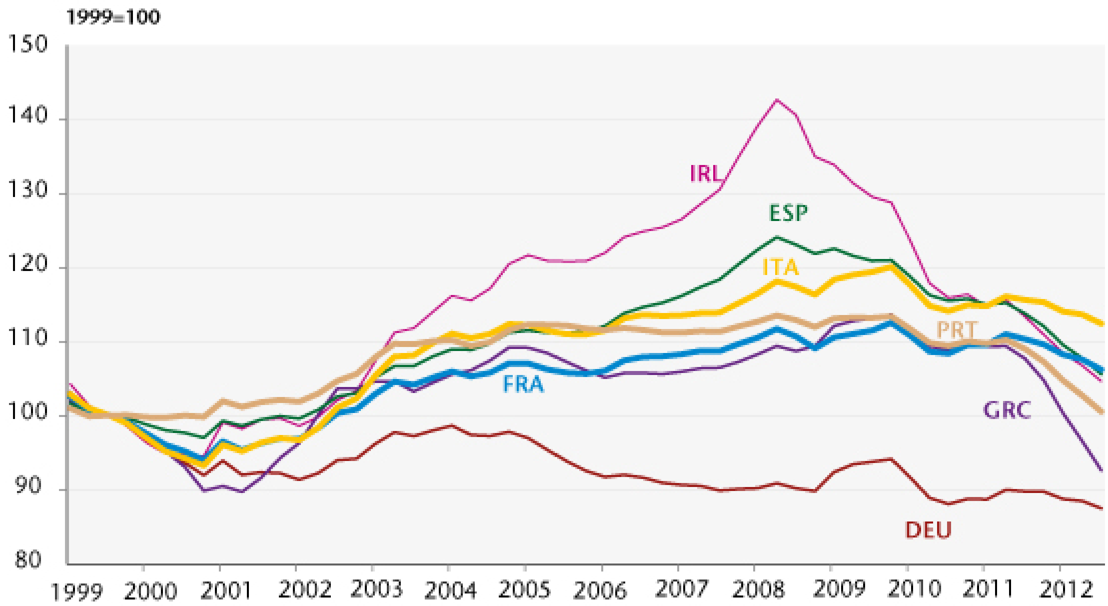
By Céline Antonin, Christophe Blot, Sabine Le Bayon and Catherine Mathieu

The crisis affecting the euro zone is the result of macroeconomic and financial imbalances that developed during the 2000s. The European economies that have provoked doubt about the sustainability of their public finances (Spain, Portugal, Greece and Italy [1]) are those that ran up the highest current account deficits before the crisis and that saw sharp deteriorations in competitiveness between 2000 and 2007. Over that same period Germany gained competitiveness and built up growing surpluses, to such an extent that it has become a model to be emulated across the euro zone, and especially in the countries of southern Europe. Unit labor costs actually fell in Germany starting in 2003, at a time when moderate wage agreements were being agreed between trade unions and employers and the coalition government led by Gerhard Schröder was implementing a comprehensive programme of structural reform. This programme was designed to make the labour market [2] more flexible and reform the financing of social protection but also to restore competitiveness. The concept of competitiveness is nevertheless complex and reflects a number of factors (integration into the international division of production processes, development of a manufacturing network that boosts network effects and innovation, etc.), which also play an important role.

In addition, as is highlighted in a recent analysis by Eric Heyer, Germany's structural reforms were accompanied by a broadly expansionary fiscal policy. Today, the incentive to improve competitiveness, strengthened by the implementation of improved monitoring of macroeconomic imbalances (see here), is part of a context marked by continued fiscal adjustment and high levels of unemployment. In these conditions, the implementation of structural reforms coupled with a hunt for gains in competitiveness could plunge the entire euro zone into a deflationary situation. In fact, Spain and Greece have already been experiencing deflation, and it is threatening other southern Europe countries, as we show in our latest forecast. This is mainly the result of the deep recession hitting these countries. But the process is also being directly fueled by reductions in public sector wages, as well as in the minimum wage (in the case of Greece). Moreover, some countries have cut unemployment benefits (Greece, Spain, Portugal) and simplified redundancy procedures (Italy, Greece, Portugal). Reducing job protection and simplifying dismissal procedures increases the likelihood of being unemployed. In a context of under-employment and sluggish demand, the result is further downward pressure on wages, thereby increasing the deflationary risks. Furthermore, there has also been an emphasis on decentralizing the wage bargaining process so that they are more in tune with business realities. This is leading to a loss of bargaining power on the part of trade unions and employees, which in turn is likely to strengthen downward pressure on real wages.

The euro zone countries are pursuing a non-cooperative strategy that is generating gains in market share mainly at the expense of other European trading partners. Thus since 2008 or 2009 Greece, Spain, Portugal and Ireland have improved their competitiveness relative to the other industrialized countries (see graph). The continuation of this strategy of reducing labor costs could plunge the euro zone into a deflationary spiral, as the countries losing market share seek in turn to regain competitiveness by reducing their own labour costs. Indeed, this non-cooperative strategy, initiated by Germany in the 2000s, has already contributed to the crisis in the euro zone (see the box on p.52 of the ILO report published in 2012). It is of course futile to hope that the continuation of this strategy will provide a solution to the current crisis. On the contrary, new problems will arise, since deflation [3] will make the process of reducing both public and private debt more expensive, since debt expressed in real terms will rise as prices fall: this will keep the euro zone in a state of recession.

Figure 1: Competitiveness measured by unit labour costs (total economy)



Note: A fall in the indicator expresses an improvement in competitiveness.
Source: European Commission.

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[1] The Irish case is somewhat distinct, as the current account deficit seen in 2007 was due not to trade, but a shortfall in income.

[2] These reforms are examined in detail in a report by the Conseil d'analyse économique (no. 102). They are summarized in a special study La quête de la compétitivité ouvre la voie de la déflation ("The quest for competitiveness opens the door to deflation").

[3] For a more comprehensive view of the dynamics of debt-driven deflation, see here.

Cyprus: Aphrodite to the rescue?

By Céline Antonin and Sandrine Levasseur

For two weeks Cyprus sent tremors through the European Union. If the banking crisis that the island is going through has attracted much attention, it is essentially for two reasons. First, because the dithering over the rescue plan led to a crisis of confidence in deposit insurance, and second, because it was the first time that the European Union had allowed a bank to fail without coming to its aid. While the method of resolving the Cyprus crisis seems to represent an institutional advance [1], insofar as investors have been forced to face up to their responsibilities and citizens no longer have to pay for the mistakes of the banks, the impact of the purge of the island's real economy will nevertheless be massive. With its heavy dependence on the banking and financial sector, Cyprus is likely to face a severe recession and will have to reinvent a growth model in the years to come. In this respect, the exploitation of natural gas resources seems an interesting prospect that should not be ruled out in the medium / long term.

To grasp what is at stake in Cyprus today, let us briefly recall the facts. On 25 June 2012, Cyprus requested financial assistance from the EU and the IMF, essentially in order to bail out its two main banks (Laiki Bank and Bank of Cyprus), whose losses are estimated at 4.5 billion euros due to their high exposure to Greece. Cypriot banks were hit both by the depreciation of the Greek assets they held on their balance sheets and by the partial write-down of Greek debt under the second bail-out plan (PSI Plan of March 2012 [2]). Cyprus estimated that it needed 17 billion euros in total over four years to prop up its economy and its banks, about one year of the island's GDP (17.9 billion euros in 2012). But its backers were not ready to give it this much: the national debt, which had already reached 71.1% of GDP in 2011, would become unsustainable. The IMF and the euro zone thus came to an agreement on a smaller loan, with a maximum amount of 10 billion euros (9 billion financed by the euro zone and 1 billion by the IMF) to recapitalize the Cypriot banks and finance the island's budget for three years. Cyprus was in turn ordered to find the remaining 7 billion through various reforms: privatizations, an increase in corporate tax from 10 to 12.5%, and a windfall tax on bank deposits.

Initially [3], Nicosia decided to introduce a one-off tax of 6.75% on deposits of between 20,000 and 100,000 euros and 9.9% on those above 100,000 euros, and a withholding tax on interest on these deposits. Given the magnitude of the resulting protest, the government revised its approach, and the taxation of deposits gave way to a bankruptcy and restructuring. The solution adopted concerned the country's two main banks, Laïki Bank and Bank of Cyprus. Laïki was closed and split into two: first, a "good bank" that will take over the insured deposits (less than 100,000 euros) and the loans from the ECB to Laïki [4], but which will also take over its assets and ultimately be absorbed by Bank of Cyprus; and second, a "bad bank" that will accommodate the stocks, bonds, unsecured deposits (above 100,000 euros), and which will be used to pay off Laïki's debts [4], according to the order of priority associated with bank liquidations (depositors being paid first). In addition to absorbing the "good bank" hived off of Laïki, Bank of Cyprus will freeze its unsecured deposits, some of which will be converted into shares to be used in its recapitalization. To prevent a flight of deposits, temporary [5] capital controls were put in place.

This plan introduces a paradigm shift in the method of resolving banking crises in the European Union. At the beginning of the euro zone crisis, in particular in the emblematic case of Ireland, the European Union considered that creditors had to be spared in the event of losses, under the logic of "too big to fail", and it called on the European taxpayer. But in 2012, even before the declaration of Jeroen Dijsselbloem, Europe's doctrine had already begun to bend [6]. Hence, on 6 June 2012, the European Commission proposed a Directive on the reorganization and resolution of failing credit institutions, which provided for calling on shareholders and bondholders to contribute. [7] However, the rules on creditors are to apply only from 2018, after approval of the text by the Council and the European Parliament. This type of approach is now being tested experimentally in the Cyprus crisis.

Heavy consequences for the real economy

The situation of the country before 2008

In the period preceding the global economic crisis, the Cypriot economy was thriving, and indeed in 2007 even in danger of overheating. Over the period 2000-2006, its GDP grew on average by 3.6% per year, with growth of 5.1% in 2007. The unemployment rate was low (4.2% in 2007), with even some labour shortage as a result of the emigration of Cypriot nationals to other EU countries. The influx of foreign workers into Cyprus helped to hold down wages. Consumer spending and, to an even greater extent, business investment, which were largely financed through credit, were particularly dynamic starting in 2004, with growth rates that in 2007 reached, respectively, 10.2% and 13.4%. Inflation was moderate, and in this generally positive context, Cyprus qualified to adopt the euro on 1 January 2008.

In this pre-crisis period, the Cypriot economy – a small, very open economy – relied in the main on two sectors: tourism and financial services.

The two key sectors of the Cypriot economy

Revenue from tourism (Table 1) has provided a relatively stable financial windfall for the Cypriot economy. This (non-cyclical) flow brings in approximately 2 billion euros annually. [8] As a share of GDP, however, the weight of tourism has decreased by half since 2000, to a level of less than 11% in 2012. Likewise, the share of tourism in the export of services fell sharply during the last decade: in 2012, it accounted for 27% (against 45% in 2000). Over the last 15 years, the number of tourists has fluctuated somewhat between 2.1 million (in 2009) and 2.7 million (2000), compared with about 850,000 people who are residents of the island.

Financial services constitute the other pillar of the Cypriot economy (Table 2). Two figures give a clear idea of its significance: bank assets accounted for more than 7.2 times GDP in 2012 (with a maximum of 8.3 achieved in 2009), and the stock of FDI in the sector "Finance & Insurance" is estimated at more than 35% of GDP, *i.e.* more than 40% of all FDI inflows.

Table 1. Weight of tourism in Cyprus

	2000	2004	2009	2012
Tourist revenue				
In millions of €	2 040,1	1 678,4	1 493,2	1 926
In % of GDP	20,5	13,3	8,9	10,8
By tourist (in €)	759	715	697	781
In % of services exports	44,8	32,6	25,0	26,8
Tourists (1000s of people)	2 686	2 349	2 141	2 465

Source: Central Bank of Cyprus and National statistical office. Author's calculations.

Table 2. Weight of the banking sector in Cyprus

	2007	2008	2009	2010	2011	2012
Banking assets						
In billions of €	92,9	118,1	139,4	135,0	131,6	128,1
Relative to GDP	5,8	6,9	8,3	7,8	7,3	7,2
Stock of FDI in the Finance and Insurance sector						
In billions of €						6,4
In % of GDP						35,6
In % of total FDI						41,6

Source: Central Bank of Cyprus and National statistical office. Author's calculations.

As major sources of wealth for the Cypriot economy, these two sectors have played an important role by, at least until 2007, compensating (partially) the considerable deficit in the balance of payments, which has risen continuously since the early 1990s and fluctuated at around 30% of GDP since 2000 (Table 3). The “fuel” bill has been an increasing burden on imports into Cyprus, mainly due to higher oil prices: the energy bill has tripled over the last decade, rising from 461 million euros in 2000 to 1.4 billion in 2011. As a percentage of GDP, the rise in energy costs has also been very visible, as it has shot up from 5% of GDP in 2000 to 8% in 2011.

Reducing the size of the financial sector therefore raises the question of a new growth model for the Cypriot economy, *i.e.* its “industrial conversion”.

Table 3. Extract from the balance of payments of Cyprus

In millions of € (unless stated otherwise)

		2000	2004	2007	2008	2009	2010	2011
Balance of goods								
Exports	Total	1 011	936	1 083	1 190	971	1 137	1 404
	o/w “re-exports”	600	521	578	643	491	570	777
Imports	Total	4 104	4 578	6 353	7 367	5 692	6 517	6 311
	o/w “fuels”	461	503	895	1 247	880	1 157	1 381
Exports - Imports	Total	-3 093	-3 641	-5 271	-6 176	-4 721	-5 381	-4 907
	Total (% of GDP)	-31 %	-29 %	-33 %	-36 %	-28 %	-31 %	-27 %
Balance of services								
Exports	Total	4 552	5 147	6 579	6 538	5 779	6 049	6 262
Imports	Total	1754,40	2 201	2 841	2 937	2 416	2 467	2 676
Exports - Imports	Total	2 797	2 946	3 739	3 601	3 363	3 583	3 586
	Total (% of GDP)	28 %	23 %	24 %	21 %	20 %	21 %	20 %
Balance of goods and services								
Exports - Imports	Total	-295	-696	-1 532	-2 575	-1 358	-1 798	-1 321
	Total excl. “fuels”	165	-192	-637	-1 328	-479	-641	60
	Total (% of GDP)	-3 %	-6 %	-10 %	-15 %	-8 %	-10 %	-7 %
	Total excl. “fuels” (% of GDP)	2 %	-2 %	-4 %	-8 %	-3 %	-4 %	0 %

Source: Office statistique national, Eurostat et banque centrale de Chypre. Calculs des auteurs.

The temptation to exit the euro

The plan decided by the Troika undermines the island’s growth model by penalizing the country’s hyper-financialization, and condemns it to years of recession. To avoid a long convalescence, the idea of leaving the euro zone has taken root, as it did in Greece. However, leaving the euro zone is far from a panacea. Regaining monetary sovereignty undeniably offers certain advantages, as is described by C. Antonin and C. Blot in their note, Comparative study of Ireland and Iceland: first, an internal devaluation (through lower wages) would not be as effective as an external devaluation (through exchange rates); second, fiscal consolidation is less costly when it is accompanied by a favourable exchange rate policy. Nevertheless, given the structure of the Cypriot economy, we do not think that leaving the euro is desirable.

In fact, upon leaving the euro, the Central Bank of Cyprus would issue a new currency. Assuming it remains convertible, this currency would depreciate vis-à-vis the euro. By way of comparison, between July 2007 and December 2008 the Icelandic krona lost 50% of its value vis-à-vis the euro. Such a depreciation would have two consequences:

– One, an improvement in competitiveness (the real exchange rate has appreciated by 10% since 2000), which would boost exports and help reduce the deficit in the balance of trade in goods and services (Table 1). Since the accession of Cyprus to the European Union in 2004, this balance has deteriorated as a result of several factors: first, the slowing of inflation from 2004 related to pegging the exchange rate to the euro, which encouraged the growth of real wages at a higher rate than productivity gains; and second, the boom in bank lending, with the substantial decline in risk premiums on loans as a result of accession to the EU [9]. Consumption was boosted, the competitiveness of the Cypriot economy deteriorated, and imports increased. Would exiting the euro reverse this trend? This is the argument of Paul Krugman, who supports Cyprus leaving the euro zone by evoking a tourist boom and the development of new export-oriented industries. However, according to our calculations, a 50% depreciation in the real exchange rate would result in an increase in the value of exports of 500 million euros, including 150 million from additional tourism revenue. [10] As for imports, they are weakly substitutable, as they are composed of energy and capital and consumer goods. Given the weakness of the country’s industries, Cyprus will not be able to undertake a major industrial restructuring in the short or medium term. There are therefore limits to improvements in the trade balance. Furthermore, inflation would increase, including through imported inflation, which would lead to a fall in consumer purchasing power and mitigate any competitiveness gains.

– In addition, the devaluation would substantially increase the burden of the outstanding debt, but also of private debt denominated in foreign currency. Net foreign debt in Cyprus is low, at 41% of GDP in 2012. In contrast, public debt reached 70% of GDP, or 12.8 billion euros. 99.7% of the public debt is denominated in euros or in a currency that is part of the European Exchange Rate Mechanism (and thus pegged to the euro), and 53% of this debt is held by non-residents. In addition, the deficit was 6.3% of GDP. If Cyprus no longer had the euro, it would without doubt default on part of its public debt, which would temporarily deprive the country of access to foreign capital, and thus require the kind of violent fiscal consolidation that Argentina went through in 2001.

The exploitation of natural gas resources

The crisis in Cyprus raises the question of the natural gas discoveries in the south of the island in the early 2000s. According to the US Geological Survey, the Levant Basin located between Cyprus and Israel could contain 3,400 billion cu.m of gas resources. By way of comparison, the entire EU has 2,400 billion cu.m (mainly in the North Sea).

Cyprus thus has *a priori* a major natural gas bonanza, even if all of the deposits are not located in its Exclusive Economic Zone (EEZ). At present, only one out of the twelve parcels of land belonging to the Cypriot EEZ has been subject to exploratory drilling, and in December 2011 a deposit of 224 billion cu.m of natural gas was discovered. According to the Government of Cyprus, the value of this field, called Aphrodite, is estimated at 100 billion euros[11]. The exploration of the other eleven parcels belonging to the Cypriot EEZ could prove successful (or even very successful) in terms of natural gas resources. As the licenses for the exploration of these eleven parcels are in the process of being awarded by the Cypriot authorities, the EU could have used the (sad) occasion of the rescue package to secure a portion of the aid granted to Cyprus on its gas potential. Why did the EU not seize on such an occasion?

For the EU, the discovery of the natural gas reserves is good news, in the sense that the exploitation of these deposits will help it to achieve the energy diversification that it values so highly. However, several problems have arisen, problems that darken the prospects for exploiting the gas fields in the very near future. First of all, the discovery of gas reserves in the Levant basin has revived tensions with Turkey, which occupies the northern part of the island of Cyprus and which believes it has rights to the exploitation of the fields. The growing number of Turkish military manoeuvres reflects an effort to impose its presence in the areas being surveyed and could lead to an escalation of violence in the region, especially since the Greek-Cypriot authorities (the southern part) have been working with Israel to defend the gas fields. [12] Second, even assuming that the Greek-Turkish dispute is resolved, the exploitation of the gas will require heavy investment in infrastructure, in particular the construction of an LNG tanker whose cost is estimated at 10 billion euros. Finally, there will be no immediate return on the investment, as it will take at least eight years to put in place the necessary infrastructure. In these conditions, it is understandable why the EU did not take the opportunity to secure some of the aid to Cyprus against these gas resources: exploitation is still too uncertain and, in any case, the horizon is too distant (given the immediacy required for a response to the crisis).

Furthermore, the EU would likely wind up in an awkward situation vis-à-vis several countries. If the EU supports Cyprus in the gas dispute, this comes down to supporting Israel, at the very time that the EU is holding negotiations on Turkey’s membership and is trying to build good relations in the region, including with the regimes that have emerged from the “Arab Spring”. In addition, two pipeline projects are already in competition: the South Stream project, linking Russia to Western Europe by 2015, and Nabucco, connecting Iran, via Turkey, to Western Europe by 2017. A new gas pipeline connecting the Cypriot fields to the European continent would further reduce Russia’s bargaining power, by shifting the centre of gravity of natural gas southwards. This would promote greater dispersion and intensify geopolitical divisions in Europe, between a Northern Europe (including Germany) supplied by Russia and a Southern Europe dependent on the Middle East and Turkey.

Conclusion

If in the immediacy of the crisis the EU has made the right choice (that of the “bad” and “good” bank), the question is posed in the medium / long term of a new growth model for the Cypriot economy. Given the comparative advantages of Cyprus, the exploitation of natural gas seems to offer the only serious solution for the economy’s conversion. However, for this strategy to be achievable, the EU will have to take a clear position in favour of Cyprus in the Greek-Turkish dispute.

Not only would the exploitation of the gas bring Cyprus energy self-sufficiency, it would also constitute a major source of revenue for the island. Energy costs would cease being a burden on the balance of payments (Table 1). This is especially important, because, even though tourism (another pillar of the economy) has provided a stable (non-cyclical) source of income since 2000, it is not immune to geopolitical events in the region or to new competition over tourist destinations, in particular from the "Arab Spring" countries.

Consider this simple calculation. Suppose Cyprus manages to maintain its tourism revenues at the level of 2 billion euros (an assumption that, despite the caveats outlined above, is nevertheless realistic); in the absence of industrial restructuring, if the share of the banking sector in the economy is halved (as desired by the Troika and common sense), then Cypriot GDP would return to its 2003 level, or slightly less than 12 billion euros. And GDP per capita would fall by about a third….

Industrial reconversion is thus important for the Cypriot economy, just as for other economies in crisis…. except that Cyprus has Aphrodite.

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[1] See Henri Sterdyniak and Anne-Laure Delatte, "Cyprus: a well-conceived plan, a country in ruins…"., OFCE blog, March 2013.

[2] See Céline Antonin, Would returning to the drachma be an overwhelming tragedy?, *OFCE Note* no. 20, 19 June 2012.

[3] For more on the dithering on the rescue plan, see Jérôme Creel, "The Cypri-hot case!", OFCE blog, March 2013.

[4] These loans, granted via Emergency Liquidity Assistance (ELA), amount to 9 billion euros.

[5] Article 63 of the Treaty of the European Union prohibits restrictions on the movement of capital, but Article 64b authorizes Member states to take control measures for reasons of public order or public safety.

[6] *"If the bank can't recapitalize itself, then we'll talk to the shareholders and the bondholders. We'll ask them to contribute in recapitalizing the bank. And if necessary the uninsured deposit holders"*, statement by Jeroen Dijsselbloem, 25 March 2013, to the *Financial Times*.

[7] http://www.revue-banque.fr/risques-reglementations/breve/les-creanciers-des-banques-mis-contribution

[8] The tourist revenue of Cyprus depends in the main on tourists from Britain (43% in 2011), Russia (14%), Germany and Greece (6.5 % each).

[9] On the factors worsening the current accounts, see Natixis, Retour sur la crise chypriote, novembre 2012.

[10] Estimation made using the elasticities calculated by the IMF.

[11] Not far from Aphrodite, 700 billion cu.m of deposits were discovered in the Israeli EEZ, proof that the region is rich in natural gas.

[12] The tensions between Cyprus (southern part) and Israel were resolved (peacefully) by the signing of a treaty in December 2010 defining their respective exclusive economic zones (EEZ). The two entities also plan to cooperate in the construction of common infrastructures to exploit the gas. See the analysis of Angélique Palle on the geopolitical consequences of the discovery of these natural gas resources in the Levant basin.

And what if the austerity budget has succeeded better in France than elsewhere? [1]

By Mathieu Plane

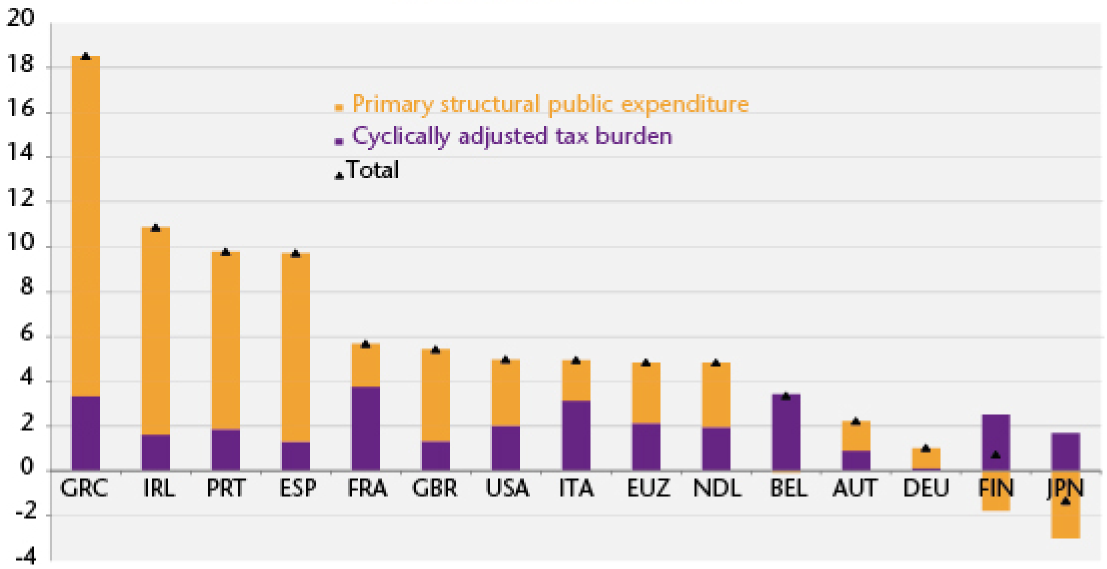
Faced with a rapid and explosive deterioration in their public accounts, the industrialized countries, particularly in Europe, have implemented large-scale austerity policies, some as early as 2010, in order to quickly reduce their deficits. In a situation like this, several questions about France's fiscal policy need to be examined:

– First, has France made a greater or lesser fiscal effort than other OECD countries to deal with its public accounts?

– Second, is there a singularity in the fiscal austerity policy implemented by France and has it had more or less effect on growth and the level of unemployment?

With the notable exception of Japan, between 2010 and 2013 all the major OECD countries implemented policies to reduce their primary structural deficits [2]. According to the latest OECD figures, these policies represented a fiscal effort of about 5 percentage points of GDP over three years on average in the euro zone, the United States and the United Kingdom. In contrast, the differences within the euro zone itself were very large: they range from only 0.7 percentage points in Finland to more than 18 points in Greece. Among the major industrialized countries of the OECD, France is, after Spain, the country that has made the greatest fiscal effort since 2010 from a structural viewpoint (5.7 percentage points of GDP over three years). In the post-World War 2 era, France has never experienced such a brutal and sustained adjustment in its public accounts. For the record, the budget effort that took place in the previous period of sharp fiscal consolidation from 1994 to 1997 was twice as small (a cumulative negative fiscal impulse of 3.3 GDP points). Between 2010 and 2013, the cyclically adjusted tax burden increased in France by 3.8 GDP points, and the structural effort on public spending represented a gain of 1.9 GDP points over four years (Figure 1). Among the OECD countries, it was France that made the greatest cyclically adjusted increase in the tax burden in the period 2010-2013. Finally, from 2010 to 2013, the structural effort to reduce the public deficit broke down as follows: two-thirds involved an increase in the tax burden and one-third came from public spending. This breakdown is different from that observed on average in the euro zone, where the fiscal effort over the period 2010-13 involved a nearly 60% reduction in public expenditure, rising to over 80% in Spain, Portugal, Greece and Ireland. In contrast, in Belgium, the entirety of the fiscal effort came from a higher tax burden. And in the case of Finland, primary structural public spending in points of potential GDP rose over the period 2010-2013, which was more than offset by the increase in the tax burden.

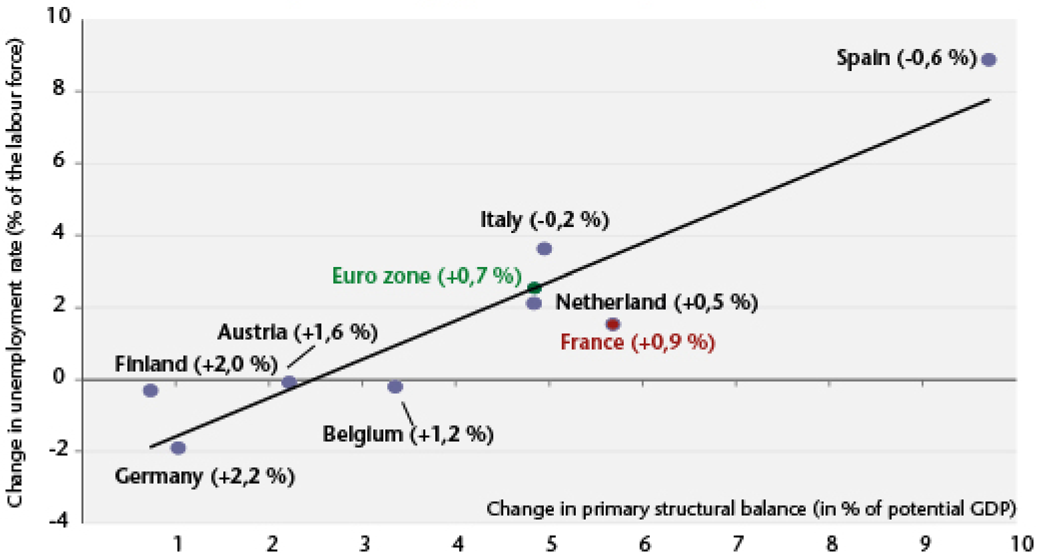
Figure 1. Contribution of each component to the change in the primary structural balance from 2010 to 2013, by country



Sources: OECD, OFCE calculations.

While France's substantial budgetary efforts have undeniably had a negative impact on economic activity and employment, it is nevertheless true that the budget decisions of the various governments since 2010 appear to have affected growth and the labour market relatively less than in most other countries in the euro zone. Within the euro zone-11, from 2010 to 2013 only four countries – Germany, Finland, Austria and Belgium – experienced average growth of over 1% per year, with unemployment rates that not only did not increase, but occasionally even fell. However, these are also the four countries that made the smallest reductions in their structural deficits over this period. France, on the other hand, is among the countries that made the greatest structural effort since 2010, and it has simultaneously managed to contain the rise in unemployment to some extent. Indeed, compared with the Netherlands, Italy and the euro zone average, France's fiscal policy was more restrictive by about 1 GDP point from 2010 to 2013, yet the unemployment rate increased by 40% less than in the Netherlands, 60% less than the euro zone average and more than two times less than in Italy. Likewise, growth in France was higher on average over this period: 0.9% per year, against 0.5% in the Netherlands, 0.7% in the euro zone and -0.2% in Italy.

Figure 2. Change between 2010 and 2013 in the primary structural balance and the unemployment rate (and in average growth over the period in %)



Sources: OECD Economic Outlook, November 2012; OFCE calculations.

Why has the French fiscal contraction had less impact on growth and employment than in most other countries? Beyond the economic fundamentals, some evidence suggests that the budget decisions of the successive governments since 2010 may have led to fiscal multipliers that are lower than in the other countries. After Finland and Belgium, France is the country where public spending played the smallest role in reducing the structural deficit. As illustrated by recent studies, in particular the IMF study and the article signed by economists from the central banks in Europe and the U.S., the European Commission, the OECD and the IMF, targeting fiscal adjustment through raising the tax burden rather than cutting public spending has given France smaller short-term fiscal multipliers than those observed in countries that have made the opposite choice (Greece, Portugal, Ireland and Spain). In the case of France, nearly 50% of the fiscal adjustment was achieved by an increase in the direct taxation of household and business income (Table 1). And as has also been the case for the United States, Belgium and Austria, which achieved between 50% and 75% of their fiscal adjustment by increasing direct taxation, it seems that these countries have also done best at maintaining their growth in the face of the budget cuts. Conversely, the ones that have used this lever the least in their fiscal adjustments are the southern European countries and the Netherlands.

Table. Contribution of each component to the change in the primary structural balance between 2010 and 2013, by country

In % of potential GDP

	GRC	IRL	PRT	ESP	FRA	GBR	USA	ITA	EUZ	NLD	BEL	AUT	DEU	FIN	JPN
Primary structural balance (PSB) (= a + b)	18,5	10,9	9,8	9,7	5,7	5,4	5,0	4,9	4,8	4,8	3,4	2,2	1,0	0,7	-1,3
Cyclically adjusted tax burden (a)	3,3	1,6	1,9	1,3	3,8	1,3	2,0	3,1	2,1	2,0	3,4	0,9	0,1	2,5	1,7
o/w increase in direct taxes on household and business income	1,5	3,2	1,9	1,2	2,7	0,0	2,4	1,2		0,8	1,7	1,7	0,1	0,6	0,9
Primary public spending (b)	15,2	9,2	7,9	8,4	1,9	4,1	3,0	1,8	2,7	2,9	-0,1	1,3	0,9	-1,8	-3,0
Contribution of primary public spending to the change in the PSB	82	85	81	87	34	76	59	36	56	60	-2	59	89	-242	225

Sources: OECD Economic Outlook, November 2012; OFCE calculations.

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[1] This post makes use of certain parts of the article

published in [*Alternatives Economiques*, M. Plane, "L'austérité peut-elle réussir en France ?", Special issue no. 96, 2nd quarter 2013.]

[2] The primary structural deficit measures the structural fiscal effort made by general government (*les administrations publiques*). It corresponds to the public balance, excluding interest charges, that would be generated by the government if the GDP of the economy were at its potential level. This measure is used to adjust the public balance for cyclical effects.

The death throes of the "Confederation of Europe"?

By Jacques Le Cacheux

Will the institutions that the European Union has developed – from the Treaty of Maastricht in 1992, which created it and defined the roadmap that led to the launch of the euro in 1999, to the Treaty of Lisbon in 2009, which took up the main articles of the constitutional treaty that the French and Dutch had refused to ratify in referendums in 2005 – be sufficient to resolve the crisis facing the EU today? After five years of economic stagnation and nearly four years of persistent pressure on national debts, it had seemed that fears about the sustainability of the European Monetary Union had been appeased by the determination shown in early autumn 2012 by Mario Draghi, President of the European Central Bank, to ensure the future of Europe’s single currency at any cost. But the results of the recent general elections in Italy have once again unsettled the European sovereign debt markets and revived speculation, while the euro zone has plunged back into a recession even as the wounds of the previous one lay still unhealed.

How much longer will we be content with mere expedients? Would it not be better to make a real institutional revolution, like the one undertaken between 1788 and 1790 by the framers of the Constitution of the United States of America, as they faced an acute crisis in the public debt of the Confederation and the confederated states? In his Nobel Lecture, which the OFCE has just published in French, Thomas Sargent invites us to consider this through an economic and financial reading of this critical episode in the institutional history of the United States, and through a parallel with the current situation of the euro zone that some may find audacious, but which is certainly enlightening.

There are of course many differences between the situation of the former British colonies ten years after independence and the Member States of the European Monetary Union. But how is it possible not to see certain similarities, such as the inability to find a collective solution to the national public debt crises or the inanity of the agreement in February 2012 on the future EU budget? *Mutatis mutandis*, it is a question of fiscal federalism, as well as political, in one case as in the other.

And what if Italy's elections turned out to be an opportunity for Europe ?

By Franscesco Saraceno

The whole of Europe is currently fretting about the election results in Italy. The Centre-Left coalition won a narrow majority – because of an electoral law that everyone denounces, but no one seems to have the knowledge or ability to change – which gives it an absolute majority only in the Chamber of Deputies. Due to the way bonuses are attributed for majorities won on a regional basis, no coalition in the Senate has a majority. With its system of "perfect bicameralism", Italy now finds itself in a situation where there is no possibility of forming a government with a political majority. This note explores one possible scenario for the coming few weeks and its economic consequences for Italy and Europe.

Aside from the spectacular political resurrection of Silvio Berlusconi, whose stated goal from the beginning was to prevent the victory of the Left rather than to secure a majority, the two startling results of this poll are on the one hand the defeat of the incumbent Prime Minister, Mario Monti, and on the other the progress of the Five Star (*Cinque Stelle*) movement of the former comedian Beppe Grillo, who now heads the leading party in the Chamber of Deputies.

The defeat of Mario Monti is a stinging repudiation of austerity policies that Italy's citizens view as imposed by Europe and Germany. In Monday's *New York Times*, Paul Krugman called Monti a "proconsul installed by Germany to enforce fiscal austerity on an already ailing economy". Called in November 2011 to the bedside of a country left prostrate by the Berlusconi government, Monti has failed to offer anything other than austerity policies which, unsurprisingly, [did not deliver the growth promised]. The support the former European Commissioner initially enjoyed slowly eroded as the memory of the problems marking the end of the Berlusconi era faded, and especially as Italy sank deeper and deeper into economic crisis. Mario Monti undoubtedly expected to play a decisive role in the formation of a majority in the Senate, and thus to be able to negotiate his reappointment as Prime Minister. But his gamble failed, and he is now condemned to numerical insignificance.

Beppe Grillo, in contrast, rode to a remarkable success on a tidal wave that now makes him key to the formation of a new government. Thanks to a masterful campaign conducted in the media as well as the street, his movement is the leading party in the Chamber and in the Senate in several regions. He managed to capture the exasperation of the Italians against the “political caste”, and he brought almost nine million voters into a campaign that tapped into right-wing populism (*e.g.* on several occasions he made remarks on immigration and the euro that are not reflected in his programme). He has also played on key concerns of the traditional Left, such as the rejection of austerity, environmental issues, the reduction of working hours, a national minimum income scheme, the regulation of conflicts of interest, limited terms for elected officials with no cumulation of mandates, and the ineligibility of those sentenced by the courts.

What will happen in the coming weeks? All Europe is wondering, and the initial reactions of the markets seem to betray nervousness about future developments. For institutional reasons, a new election in the very near term is not an option. President Giorgio Napolitano, who is at the end of his term, cannot dissolve Parliament; invoking this option would mean waiting until May for his successor (who is chosen by the MPs elected yesterday). Moreover, it is not certain that the Parliament chosen in any new elections would lead to a political majority.

The majority electoral law gives the Democratic Party an absolute majority of the seats in the Chamber of Deputies, which makes it indispensable to the formation of a new government. This means there are only two possible scenarios: firstly, a broad coalition between Left and Right (with or without Mario Monti's party). This seems unlikely, firstly, because of the ideological divide between the two parties, which has been aggravated by the return of Silvio Berlusconi; and secondly, because it would be perceived by the voters as ignoring the outcome of the election, which saw the two major parties lose over 11 million votes since the 2008 election.

The second solution would be a minority government of the Centre-Left, which could seek out votes from Beppe Grillo's MPs on a programme that was limited in scope and duration. In this case it would be worth considering what possibilities might exist for a convergence between the Five Star movement (whose programme can be downloaded here [in Italian]) and the Pierluigi Bersani coalition. There would certainly be a consensus on some very popular measures for dealing with the ongoing political crisis (abolition of the provinces, limits on the terms and multiple mandates of parliamentarians, ineligibility, reducing the cost of the political machinery, etc.), and for fixing some of the most vexing problems from the two decades of Berlusconi (reforms on conflicts of interest and corruption, judicial reform).

The environmentalist wing of the Centre-Left could also find convergences on incentives for energy efficiency and on investment in renewable energy.

In economics, some of Beppe Grillo's key measures could also see a convergence with the Centre-Left, for example on the adoption of a national minimum income scheme or minimum wage, themes which, as has been shown in the French debate, are not necessarily populist or unrealistic.

It would be difficult to agree on any convergence between the Centre-Left and Beppe Grillo within the framework of the current fiscal consolidation, so it’s worth repeating that a prerequisite for this would be calling into question the austerity policy repudiated by the voters. This would inevitably pose problems for the Democratic Party which, like the Socialist Party in France, has gone in for austerity. Negotiations with the Five Star movement would imply abandoning the ambiguous position that the Democratic Party has long held on austerity. This would in turn have an impact throughout Europe. In the coming few weeks, Europe’s leaders may be faced either with the lack of a government in the third-largest economy in the euro zone or with a government that is likely to turn its back on austerity. Europe could then be forced to rethink its own economic strategies, and some countries that have been tightening up only reluctantly (like France?) could seize the opportunity to call into question the model of growth through austerity.

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.

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