Should Germany's surpluses be punished?

By Henri Sterdyniak

On the procedure for macroeconomic imbalances

Since 2012, every year the European Commission analyses the macroeconomic imbalances in Europe: in November, an alert mechanism sets out any imbalances, country by country. Countries with imbalances are then subjected to an in-depth review, leading to recommendations by the European Council based on Commission proposals. With respect to the euro zone countries, if the imbalances are considered excessive, the Member state is subject to a macroeconomic imbalance procedure (MIP) and must submit a plan for corrective action, which must be approved by the Council.

The alert mechanism is based on a scoreboard with five indicators of external imbalances [1] (current account balance, net international investment position, change in the real effective exchange rate, change in export market shares, change in nominal unit labour costs) and six indicators of internal imbalances (unemployment rate, change in housing prices, public debt, private debt, change in financial sector liabilities, credit flows to the private sector). An alert is issued when an indicator exceeds a certain threshold, *e.g.* 60% of GDP for public debt, 10% for the unemployment rate, -4% (+6% respectively) for a current account deficit (respectively surplus).

On the one hand, this process draws lessons from the rise in imbalances recorded before the crisis. At the time of the Maastricht Treaty, the negotiators were convinced that economic imbalances could only come from the way the State behaved; it therefore sufficed to set limits on government

deficits and debt. However, between 1999 and 2007, the euro zone saw a steep rise in imbalances due mainly to private behaviour: financial exuberance, securities and property bubbles, swollen foreign deficits in southern Europe, and a frantic search for competitiveness in Germany. These imbalances became intolerable after the financial crisis, requiring painful adjustments. The MIP is thus designed to prevent such mistakes from happening again.

On the other hand, the analysis and the recommendations are made on a purely national basis. The Commission does not propose a European strategy that would enable the countries to move towards full employment while reabsorbing intra-zone imbalances. It does not take into account inter-country interactions when it demands that each country improve its competitiveness while cutting its deficit. The Commission's recommendations are a bit like the buzzing of a gadfly when it proclaims that Spain should reduce its unemployment, France should improve its competitiveness, etc. Its proposals are based on a myth: it is possible to implement policies on public deficit and debt reduction, on wage austerity and on private debt reduction, while offsetting their depressive impact on growth and employment through structural reforms, which are the *deus ex machina* of the fable. This year there is also, fortunately, the European Fund for strategic investments (the 315 billion euros of the Juncker plan), meaning that the Commission can claim to be giving "a coordinated boost to investment", but this plan represents at most only 0.6% of GDP over 3 years; its actual magnitude is thus problematic.

For 2015, all the countries in the European Union have at least one imbalance according to the scoreboard [2] (see here). France has lost too much of its export market share and has an excessive public debt and private debt. Germany, too, has lost too much of its export market share, its public debt is excessive and above all its current account surplus is too high. Of the 19 countries in the euro zone, seven, however,

have been absolved by the Commission and 12 are subject to an in-depth review, to be published in late February. Let's take a closer look at the German case.

On Germany's surplus

A single currency means that the economic situation and policies of each country can have consequences for its partners. A country that has excessive demand (due to its fiscal policy or to financial exuberance that leads to an excess of private credit) and is experiencing inflation (which can lead to a rise in the ECB's interest rate), thereby widening the euro zone's deficit (which may contribute to a fall in the euro), requires its partners to refinance it more or less automatically (in particular via TARGET2, the system of automatic transfers between the central banks of the euro zone); its debt can thus become a problem.

This leads to two observations:

1. Larger countries can have a more harmful impact on the zone as a whole, but they are also better able to withstand the pressures of the Commission and its partners.

2. The harm has to be real. Thus, a country that has a large public deficit will not harm its partners, on the contrary, if the deficit makes up for a shortfall in its private demand.

Imagine that a euro zone country (say, Germany) set out to boost its competitiveness by freezing its wages or ensuring that they rise much more slowly than labour productivity; it would gain market share, enabling it to boost its growth through its trade balance while reining in domestic demand, to the detriment of its euro zone partners. The partners would see their competitiveness deteriorate, their external deficits widen, and their GDP shrink. They would then have to choose between two strategies: either to imitate Germany, which would plunge Europe into a depression through a lack of demand; or to prop up demand, which would lead to a large external

deficit. The more a country manages to hold down its wages, the more it would seem to be a winner. Thus, a country running a surplus could brag about its good economic performance in terms of employment and its public account and trade balances. As it is lending to other member countries, it is in a strong position to impose its choices on Europe. A country that is building up deficits would sooner or later come up against the mistrust of the financial markets, which would impose high interest rates on it; its partners may refuse to lend to it. But there is nothing stopping a country that is accumulating surpluses. With a single currency, it doesn't have to worry about its currency appreciating; this corrective mechanism is blocked.

Germany can therefore play a dominant role in Europe without having an economic policy that befits this role. The United States played a hegemonic role at the global level while running a large current account deficit that made up for the deficits of the oil-exporting countries and the fast-growing Asian countries, in particular China; it balanced global growth by acting as a "consumer of last resort". Germany is doing the opposite, which is destabilizing the euro zone. It has automatically become the "lender of last resort". The fact is that Germany's build-up of a surplus must also be translated into the build-up of debt; it is therefore unsustainable.

Worse, Germany wants to continue to run a surplus while demanding that the Southern European countries repay their debts. This is a logical impossibility. The countries of Southern Europe cannot repay their debts unless they run a surplus, unless Germany agrees to be repaid by running a deficit, which it is currently refusing to do. This is why it is legitimate for Germany to be subject to an MIP – an MIP that must be binding.

The current situation

In 2014, Germany’s current account surplus represented 7.7% of GDP (or 295 billion euros, Table 1); for the Netherlands the figure was 8.5% of GDP. These countries represent an exception by continuing to run a strong external surplus, while most countries have come much closer to equilibrium compared with the situation in 2007. This is in particular the case of China and Japan. Germany now has the highest current account surplus of any country in the world. Its surplus would be even 1.5 GDP points higher if the euro zone countries (particularly those in Southern Europe) were closer to their potential output. Thanks to Germany and the Netherlands, the euro zone, though facing depression and high unemployment, has run a surplus of 373 billion dollars compared with a deficit of 438 billion for the United States: logically, Europe should be seeking to boost growth not by a depreciation of the euro against the dollar, which would further widen the disparity in trade balances between the euro zone and the United States, but by a strong recovery in domestic demand. If Germany owes its surplus to its competitiveness policy, it is also benefitting from the existence of the single currency, which is allowing it to avoid a surge in its currency or a depreciation in the currency of its European partners. The counterpart of this situation is that Germany has to pay its European partners so that they remain in the euro.

Table 1. Current account balance as % of GDP

	2007	2014
Netherlands	6,7	8,5
Germany	7,5	7,7
Austria	3,5	2,5
Italy	-2,4	1,8
Belgium	1,9	-0,1
Spain	-10,0	-0,1
Portugal	-10,1	-0,2
Finland	4,1	-1,4
France	-1,0	-1,8
Greece	-14,6	-2,0
Euro zone	0,2	2,8
United Kingdom	-2,2	-4,1
Denmark	1,4	6,5
Sweden	9,3	5,9
United States	-5,0	-2,2
Japan	4,9	0,1
China	10,7	3,3

Source : European economy.

There are three possible viewpoints. For optimists, Germany's surplus is not a problem; as the country's population ages, Germans are planning for retirement by accumulating foreign assets, which will be used to fund their retirements. The Germans prefer investing abroad rather than in Germany, which they feel is less profitable. These investments have fuelled international financial speculation (many German financial institutions suffered significant losses during the financial crisis due to adventurous investments on the US markets or the Spanish property market); now they are fuelling European debt. Thus, through the TARGET2 system, Germany's banks have indirectly lent 515 billion euros to other European banks at a virtually zero interest rate. Out of its 300 billion surplus, Germany spends a net balance of only 30 billion on direct investment. Germany needs a more coherent policy, using its

current account surpluses to make productive investments in Germany, Europe and worldwide.

Another optimistic view is that the German surplus will decline automatically. The ensuing fall in unemployment would create tensions on the labour market, leading to wage increases that would also be encouraged by the establishment of the minimum wage in January 2015. It is true that in recent years, German growth has been driven more by domestic demand and less by the external balance than prior to the crisis (Table 2): in 2014, GDP grew by 1.2% in Germany (against 0.7% in France and 0.8% for the euro zone), but this pace is insufficient for a solid recovery. The introduction of the minimum wage, despite its limitations (see A minimum wage in Germany: a small step for Europe, a big one for Germany), will lead to a 3% increase in payroll in Germany and for some sectors will reduce the competitiveness gains associated with the use of workers from Eastern Europe. Even so, by 2007 (relative to 1997), Germany had gained 16.3% in competitiveness compared to France (26.1% compared to Spain, Table 3); in 2014, the gain was still 13.5% relative to France (14.7% relative to Spain). A rebalancing is taking place very slowly. And in the medium term, for demographic reasons, the need for growth in Germany is about 0.9 points lower than the need in France.

Table 2. Contributions to GDP by domestic demand and the external balance

	GDP		Domestic demand		External balance	
	1998-2007	2007-2014	1998-2007	2007-2014	1998-2007	2007-2014
Germany	1,60	0,70	0,85	0,70	0,75	0,00
France	2,25	0,30	2,60	0,35	-0,35	-0,05
Spain	3,85	-0,70	4,60	-2,10	-0,75	1,40
Italy	1,50	-1,30	1,65	-2,80	-0,15	1,50
Euro zone	2,30	-0,10	2,20	-0,55	0,10	0,45

Table 3. Indicator of relative unit labour costs

Base 100 = 1997

	2007	2013
Euro zone	99,0	105,2
Germany	86,2	90,4
Austria	94,2	98,1
Finland	98,9	109,3
France	103,0	104,5
Belgium	103,2	107,8
Italy	107,9	111,9
Portugal	110,3	101,8
Netherlands	108,2	111,9
Greece	110,5	98,3
Spain	116,6	106,0
Ireland	124,1	106,1
Outside euro zone		
United Kingdom	122,2	104,1
Sweden	92,4	98,6

Source : European economy.

Furthermore, a more pessimistic view argues that Germany should be subject to a macroeconomic imbalance procedure to get it to carry out a macroeconomic policy that is more favourable to its partners. The German people should benefit more from its excellent productivity. Four points need to be emphasised:

1. In 2014, Germany recorded a public surplus of 0.6 percent of GDP, which corresponds, according to the Commission's estimates, to a structural surplus of about 1 GDP point, *i.e.* 1.5 points more than the target set by the Fiscal Compact. At the same time, spending on public investment was only 2.2 GDP points (against 2.8 points in the euro zone and 3.9 points in France). The country's public infrastructure is in poor condition. Germany should increase its investment by 1.5 to 2 additional GDP points.

2. Germany has undertaken a programme to reduce public pensions, which has encouraged households to increase their retirement savings. The poverty rate has increased significantly in recent years, reaching 16.1% in 2014 (against 13.7% in France). A programme to revive social protection and improve the prospects for retirement[3] would boost consumption and reduce the savings rate.

3. Germany should restore a growth rate for wages that is in line with growth in labour productivity, and even consider some catch-up. This is not easy to implement in a country where wage developments depend mainly on decentralized collective bargaining. This cannot be based solely on raising the minimum wage, which would distort the wage structure too much.

4. Finally, Germany needs to review its investment policy[4]: Germany should invest in Germany (public and private investment); it should invest in direct productive investment in Europe and significantly reduce its financial investments. This will automatically reduce its unproductive investments that go through TARGET2.

Germany currently has a relatively low rate of investment (19.7% of GDP against 22.1% for France) and a high private sector savings rate (23.4% against 19.5% for France). This should be corrected by raising wages and lowering the savings rate.

As Germany is relatively close to full employment, a significant part of its recovery will benefit its European partners, but this is necessary to rebalance Europe. Any policy suggested by the MIP should require a change in Germany's economic strategy, which it considers to be a success. But European integration requires that each country considers its choice of economic policy and the direction of its growth model while taking into account European interdependencies, with the aim of contributing to balanced

growth for the euro zone as a whole. An approach like this would not only benefit the rest of Europe, it would also be beneficial to Germany, which could then choose to reduce inequality and promote consumption and future growth through a programme of investment.

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[1] For more detail, see European Commission (2012) : "Scoreboard for the surveillance of macroeconomic imbalances", *European Economy Occasional Papers* 92.

[2] This partly reflects the fact that some of these indicators are not relevant: almost all European countries are losing market share at the global level; changes in the real effective exchange rate depend on trends in the euro, which the countries do not control; the public and private debt thresholds were set at very low levels; etc.

[3] The ruling coalition has already raised the pensions of mothers and allowed retirement at age 63 for people with lengthy careers, but this is timid compared with previous reforms.

[4] The lack of public and private investment in Germany has been denounced in particular by the economists of the DIW, see for example: "Germany must invest more for future", *DIW Economic Bulletin* 8.2013 and *Die Deutschland Illusion*, Marcel Fratzscher, October 2014.

Poverty and social exclusion in Europe: where are things at?

By Sandrine Levasseur

In March 2010, the EU set itself the target for the year 2020 of reducing the number of people living below the poverty line or in social exclusion by 20 million compared with 2008, *i.e.* a target of 97.5 million "poor" people in 2020. Unfortunately, due to the crisis, this goal will not be reached. The latest available figures show that in 2013 the EU had 122.6 million people living in poverty or social exclusion. Surprisingly, the EU's inability to meet the target set by the Europe 2020 initiative is due mainly to the EU-15 countries, the so-called "advanced" countries in terms of their economic development [1]. Indeed, if the trends observed over the last ten years continue, the Central and East European countries (CEEC) will continue to experience a decline in the number of people living below the poverty line or in social exclusion. How is it that the countries of the EU-15 are performing so poorly in the fight against poverty and social exclusion? It is important to keep in mind that the East and Central European countries also perform better when we consider other indicators of income inequality within a country (*e.g.* the Gini coefficient, the ratio of the income of the 20% richest over that of the 20% poorest). The EU-15's performance is troubling not only with regard to relative poverty and social exclusion, but also in terms of all the statistics concerning living conditions and income inequality.

Risk of poverty and social exclusion: what exactly are we talking about?

In order to reduce poverty and social exclusion, the Europe

2020 initiative focuses on three types of groups: people at risk of poverty, people facing severe material deprivation, and people with a low work intensity[2]. A person belonging to several different groups is counted only once.

According to Europe 2020, people are at risk of poverty when their disposable income falls below 60% of the median income observed at the national level, the median income being the level of income at which half the country's population has a higher income and half a lower one. Since the median income threshold is calculated nationally, this means for example that a Romanian individual at the threshold of the median income has an income well below that of a French person earning the median income: the Romanian median income is in fact one-fifth the French median income in terms of purchasing power parity, that is to say, when we take into account the price differences between the countries[3]. The indicator of the poverty risk used by Europe 2020 is thus a measure of income inequality between individuals *within a country*, not between countries.

Note that disposable income is considered in adult equivalents, *i.e.* incomes were first recorded at the household level and then weights were assigned to each member (1 for the first adult; 0 5 for the second and each person over age 14; and 0.3 for children under age 14). Also note that the disposable incomes in question here are *after* social transfers, *i.e.* after taking account of allowances, benefits and pensions – that is, they are after any action by the country's social system. In addition, the level used to define the threshold for the risk of poverty (*i.e.* 60% of median income) aims to take into account situations other than extreme poverty: the goal is also to take account of people who are having difficulty meeting their basic needs. For example, the poverty threshold of 60% of median income in France was 12,569 euros per year in 2013 (or 1047 euros a month). The concept of material deprivation is used to refine

the definition of unmet basic needs.

People experiencing severe material deprivation are those whose lives are constrained by a lack of resources and who face at least four out of the following nine material deprivations: an inability 1) to pay the rent or utility bills (water, gas, electricity, telephone); 2) to heat the dwelling adequately; 3) to meet unexpected expenses; 4) to eat a daily portion of protein (meat, fish or equivalent); 5) to afford a week’s holiday away from home; 6) to own a car; 7) to have a washing machine; 8) to have a color TV; or 9) to have a telephone.

People living in a household with a low work intensity are those aged 0 to 59 who live in a home where the adults (aged 18 to 59) worked less than 20% of their potential capacity in the last year.

According to the latest available statistics (Table 1), 122.6 million people in the EU-28 belonged to at least one of these three groups in 2013, *i.e.* nearly one person out of every four (slightly more than 24%).

Table 1. People living below the poverty line or in social exclusion

In 1000s of people and % of the country's total population

	2005 (or 2007*)	2009	2011	2013	Change in the number of poor or socially excluded between 2005 (or 2007*) and 2013	Share in the 2013 population (%)
Belgium	2 338	2 145	2 271	2 286	-52	20,4
Denmark	921	962	1 039	1 059	138	18,8
Germany	15 022	16 217	16 074	16 212	1 190	20,1
Ireland	1 038	1 150	1 319	1 040	2	22,6
Greece	3 131	3 007	3 403	3 904	773	35,5
Spain	10 481	11 232	12 791	12 630	2 149	27,2
France	11 127	11 200	11 840	11 229	102	17,1
Italy	14 621	14 835	17 112	17 326	2 705	28,5
Luxembourg	77	85	84	96	19	17,5
Netherlands	2 705	2 483	2 598	2 648	-57	15,7
Austria	1 416	1 577	1 593	1 572	156	18,5
Portugal	2 745	2 648	2 601	2 877	132	27,6
Finland	887	886	949	854	-33	15,7
Sweden	1 325	1 459	1 538	1 602	277	16,6
United Kingdom	14 530	13 389	14 044	15 586	1 056	24,2
EU-15	**82 364**	**83 275**	**89 256**	**90 921**	**8 557**	**22,6**
Czech Republic	1 988	1 448	1 598	1 508	-480	14,3
Estonia	347	312	307	313	-34	23,8
Latvia	1 027	808	821	702	-325	35,1
Lithuania	1 400	943	1 011	917	-483	31,2
Hungary	3 185	2 924	3 051	3 285	100	33,3
Poland	17 080	10 454	10 196	9 748	-7 332	25,3
Slovenia	362	339	386	410	48	19,9
Slovakia	1 724	1 061	1 112	1 070	-654	19,8
CEEC-8	**27 113**	**18 289**	**18 482**	**17 953**	**-9 160**	**24,7**
Bulgaria*	4 663	3 511	3 693	3 493	-1 170	48,2
Romania*	9 904	9 112	8 630	8 601	-1 303	43,1
CEEC-10	—	30 912	30 805	30 047	-11 633	30,1
Croatia	—	—	1 384	1 271	—	29,9
Cyprus	188	188	207	240	52	28,0
Malta	81	82	90	99	18	23,3
EU-28	—	—	**121 742**	**122 578**	**≈ -3 000**	**24,2**

Source: Eurostat, author's calculations.

Contrasting developments between the EU-15 and the CEE countries with regard to poverty and social exclusion

While a little over 30% of the CEE population lives in poverty or social exclusion (versus 22.6% in the EU-15), what is striking is that the number of poor and socially excluded has been decreasing in the CEE countries over the last 10 years while it has been increasing in the EU-15, especially since the onset of the crisis (Table 1).

Over the past decade, the number of people living in poverty or social exclusion fell in almost all the CEE countries (with the exception of Hungary and Slovenia) and rose in almost all the EU-15 countries (with the exception of Belgium, the Netherlands and Finland). During these 10 years, the CEE countries experienced a decline of 11.5 million in the ranks of the poor and socially excluded, while the EU-15 recorded an increase of 8.5 million, *i.e.* an 85% rise since 2009. The crisis has clearly hit the EU-15 hard in terms of poverty and social exclusion. The CEE countries have, all things considered, proved fairly resilient: a number of them are even continuing to see a decrease in the number of poor and socially excluded.

What's behind these contrasting trends in poverty and social exclusion?

The main factor explaining the contrasting trends in poverty between the EU-15 and the CEE countries is that the economic situation has generally developed more favourably in East Europe than in West Europe, including during the crisis period.

Indeed, the average GDP growth rate over the last ten years (2004 to 2013) was 3.2% in the CEEC, compared with 0.8% in the EU-15. The CEE countries, though hit by the crisis, nevertheless recorded average annual growth of 0.7% in 2009-2013 (against 0.1% in the EU-15). Likewise, the unemployment and employment rates during the crisis reflected a more favourable situation on the CEE labour markets than on the EU-15 markets (Table 2).

Table 2. Employment and unemployment rates in the EU-15 and in the CEE countries

In %

	Annual average			Change in percentage points between the pre-crisis and crisis periods
	2004-2013	2004-2008	2009-2013	
Employment rate				
EU-15	70,4	71	69,9	-1,1
CEEC-10	64,9	64,2	65,5	1,3
CEEC-8	65,0	64,2	65,8	1,6
Unemployment rate				
EU-15	8,8	7,7	10,0	2,3
CEEC-10	9,6	9,8	9,5	-0,4
CEEC-8	10,4	10,8	10,1	-0,8

Source: Eurostat, author's calculations.

The risk of poverty prior to social transfers continued to fall in the CEE countries, while from 2009 it rose in the EU-15 (Table 3). Consequently, the share of people in the CEE countries living below the poverty line (out of each country's total population) *before transfers* has fallen below the level observed in the EU-15. The crisis has thus had a direct differentiated effect (*i.e.* before redistribution) on income inequality within countries: in Europe's East, income inequality has fallen, while in the West it has risen.

The workings of the social security systems in the EU-15 countries have, however, resulted in reversing (or mitigating) the differences in *post-transfer* poverty rates (Table 3). In 2013, the post-transfer poverty rate was 16.5% in the EU-15, compared with 17.2% in the CEE countries (15.4% excluding Bulgaria and Romania). The Gini coefficient, which is a more common measure of within-country income inequality, also confirms that income inequality is now higher in the EU-15 than in the CEEC[4].

Note that during the crisis the intensity of the redistribution (in % points or rates) was higher in the EU-15 than in the CEEC. However, over time the redistribution rate fell in both the East and the West, starting in 2009. Prior to the crisis, the social security systems in the EU-15 resulted

in a 37.3% reduction in the number of people living in poverty and social exclusion; during the crisis, the rate fell to 36.8%. In the CEE countries, the fall in the redistribution rate was even greater, on the order of 3.7 percentage points. By way of illustration, if the redistribution rate for the pre-crisis period had been maintained during the crisis period, an additional 1.4 million people would have avoided the risk of poverty during the crisis (0.5 million in the EU-15 and 0.9 million in the CEEC).

Table 3. Percentage of people at risk of poverty* and redistribution through social transfers

In %

	Annual average			Change in percentage points between the pre-crisis and crisis periods
	2004-2013	2004-2008	2009-2013	
	% of people at risk of poverty**			
Pre-transfer (A):				
CEEC-8	24,6	26,1	23,4	-2,7
CEEC-10	25,7	27,0	24,7	-2,3
EU-15	25,8	25,5	26,1	0,6
Post-transfer (B):				
CEEC-8	15,7	16,0	15,4	-0,6
CEEC-10	17,5	17,8	17,2	-0,6
EU-15	16,3	16,0	16,5	0,5
	Redistribution			
In % points: (A)-(B)				
CEEC-8	8,9	10,1	8,0	-2,1
CEEC-10	8,2	9,2	7,5	-1,7
EU-15	9,5	9,5	9,6	0,1
Rate in % [(A)-(B)]/(A)				
CEEC-8	36,2	38,7	34,2	-4,5
CEEC-10	31,9	34,1	30,4	-3,7
EU-15	36,8	37,3	36,8	-0,5

** Due to the lack of available data "before" and "after" social transfers, people at risk of social exclusion are not taken into account here.*
*** Number of "poor" people in the country relative to the country's population.*
Source: Eurostat, author's calculations.

This brings us to the second explanatory factor. Are the austerity programmes being implemented in many EU countries to comply with the Stability and Growth Pact and / or to satisfy the financial markets responsible for the post-transfer increase in the number of people at risk of poverty that has taken place in the EU-15? And have these programmes acted to

hold back the decline in poverty rates observed in the CEE countries, which otherwise would have been even greater?

The empirical literature on this issue is clear-cut: it shows that income inequality within countries increases during periods of fiscal consolidation[5] (Agnello and Sousa, 2012; Ball *et al.*, 2013; Mulas-Granados, 2003; Woo *et al.*, 2013). Among the tools of fiscal consolidation (*i.e.* cuts in public spending, increases in tax revenues), it is the spending cuts in particular that increase income inequality (Agnello and Sousa, 2012; Ball *et al.*, 2013; Bastagli *et al.*, 2012; Woo *et al.*, 2013). Austerity programmes implemented after the onset of a banking crisis have a much greater negative effect on income inequality than programmes implemented when not in a banking crisis (Agnello and Sousa, 2012). Furthermore, small consolidations (*i.e.* involving a cut in the public deficit of less than 1 GDP point) have a bigger negative effect on inequality than large fiscal consolidations (Agnello and Sousa, 2012).

If the results of this (still sparse) literature are accepted, the timing of the fiscal consolidation implemented in recent years has not been ideal: the programmes have been introduced too early with respect to the occurrence of the crisis. Nor have they been optimal in size: they are insufficient to cut the deficit substantially but very costly in terms of increasing income inequality between individuals. While it is difficult to form a firm and final opinion on the link between fiscal consolidation and income inequality (and poverty) based on the sparse literature, the afore-mentioned studies do have a value: they raise questions about the potentially harmful impacts of the austerity policies that have been implemented in recent years.

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[1] The Europe 2020 initiative sets out poverty reduction and social exclusion targets for each country. Here we are

basically interested in the different trends between the two areas: the EU-15 and the CEE countries.

[2] See the article by Maître, Nolan and Whelan (2014) for a critical in-depth analysis of the statistical criteria for poverty and social exclusion.

[3] In current euros, the difference in income would be even greater: in 2013, the French median income was 20,949 euros a year, and Romania's 2071 euros, so Romania's median income per year would thus be one-tenth, not one-fifth, of the French level.

[4] The difference (in favour of the CEE countries) is even more pronounced due to the exclusion of Bulgaria and Romania: the Gini coefficient after transfers is then 0.291 against 0.306 for the EU-15. The Gini coefficient can take a value between 0 and 1. As the coefficient approaches 1, an increasingly small share of the population has a larger and larger share of total income. Ultimately, when the coefficient reaches 1, a single individual has all the income.

[5] Because of the way the poverty line is calculated (*i.e.* 60% of median income), an increase in the share of people living below the poverty line definitely corresponds to an increase in income inequality between individuals.

Can students evaluate teaching quality objectively?

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The author will present her work at the International Symposium on Gender Bias in the Governance and Evaluation of Research Bodies organized by the EGERA (Effective Gender Equality in Research and the Academia), which will take place on 23 February 2015 at Sciences Po, on the CERI premises in Paris.

Anglo-American universities generally rely on the evaluation of teaching by students to measure teaching quality. They hypothesize that students are the best placed to judge the quality of teaching in that they observe the teachers throughout a course. The evaluations usually serve two purposes. First, they are used as a tool for pedagogical management for the teachers themselves, by providing them with suggestions for improving their teaching; and second, these evaluations are also often used by the administration to make decisions about promotions or the extension of teaching contracts. The evaluations then act as incentives: they encourage teachers to give the best of themselves so as to be rehired the following semester or to obtain a promotion.

In France, the practice of evaluating teaching is still not very widespread, but many higher education institutions are planning to develop it. Some private schools already use it in their recruitment policy or to extend the contracts of supply teachers. As for the public institutions, they use the evaluations of teaching only to help teachers improve their pedagogical methods. Public institutions are obliged to comply with a directive from the French Ministry of Higher Education and Research which states that “evaluation results” can be disclosed “only to the teacher concerned and not the head teacher or principal of the institution”.[1] This Directive upholds a 1997 decision of the French State Council, which indicates that the procedure for evaluating teaching should “simply allow teachers to have a better understanding of how the educational dimensions of their teaching are appreciated

by the students", and "it does not include or imply any impact on teachers' prerogatives or careers". Thus, only the teacher concerned may have "knowledge of the elements of this type of evaluation".[2]

Regardless of whether the end use of this supervisory tool is the improvement of teaching or the management of the teaching teams, universities need to be sure that student evaluations are an objective measure of the quality of teaching. To do this, at least three conditions need to be verified:

1) that the students know how to measure the quality of teaching, that is to say, they are able both to establish criteria that define teaching quality and to use these criteria to judge the teacher;

2) that the students are not biased in their judgments and assessments; and

3) that the teachers cannot adopt strategic behaviours to secure good evaluations; in other words, that efforts to obtain good evaluations do not lead teachers to engage in behaviour that could undermine educational quality.

Do students know how to judge the quality of teaching? (Condition 1)

What teacher has not been in a discussion with colleagues where everyone defended his or her own teaching method as being "the best"? These discussions generally centre on the content of teaching and how to transmit this content, as well as on different ways to check on students' learning. It is not easy to determine the criteria that define good teaching quality, and the professionals themselves disagree. Yet the system of evaluation assumes that students are able to do this to some extent at least.

In the students' view, what criteria are important for determining the quality of teaching? The literature suggests

that students believe that one essential criterion is the teacher's extroversion and dynamism, that is, their ability to capture attention (*e.g.* Radmacher and Martin, 2001). Several research studies tend to confirm that students seem to give priority to how a lesson is taught, rather than to the educational quality or the content what is being taught.

Consider the "Doctor Fox" effect (Naftulin, Ware and Donnelly, 1973), which makes reference to friendly teachers who can get good ratings by giving the impression of being competent, without however teaching relevant or good-quality content. In this example, which is well known in the United States, researchers hired an actor to teach a lesson on a fictitious subject. The course featured numerous neologisms and meaningless assertions, and the idea of the three researchers who hired the actor was to determine whether people attending it were able to detect this without being blinded by the lecturer's flair, self-assurance and academic authority (he was given a false resumé: a full range of prestigious fake diplomas and fake research papers). At the end of Dr. Myron Fox's course, those who attended gave him a positive evaluation. This experience shows first that the students' perception of a teacher's academic authority matters, and, second, that students are not always able to judge the content of what is taught.

Likewise, according to Carrell and West (2010), the perception that students have of teaching quality is not necessarily correlated with the actual quality of the course, when the latter is measured by long-term success. These authors show that evaluations are correlated positively with the students' short-term success, but not with longer-term success. Their results suggest that teachers whose pedagogical techniques encourage cramming might be better assessed than teachers who use more demanding and difficult teaching techniques but promote the long-term learning of knowledge. Indeed, students are often primarily concerned with their success on final

exams, rather than the future usefulness of the knowledge acquired during the semester. Universities need to develop incentives for teachers to use teaching methods that promote long-term learning, methods that do not always seem to be rewarded by students in their evaluations.

Are students' judgements on teacher quality unbiased? (Condition 2)

The evaluation of skills can be subject to bias on the part of the evaluators. The literature on social psychology in particular suggests that it is more difficult for people from minority backgrounds to be perceived as competent (even if they are), while it is more difficult for people from majority backgrounds to be perceived as incompetent (even if they are). Stereotypes and double standards for evaluation have an impact once it comes to determining individual competence (*e.g.* Basow, Phelan and Capotosto, 2006; Foschi, 2000). This impact can have especially negative consequences for certain minorities, in particular women university professors, who are still in a minority.

A study of evaluations by freshmen at a French higher education institution [3] showed that students do in fact apply many gender stereotypes in the way that they assess their teachers. The results of this econometric analysis show that male students tend to give better evaluations to male professors than to females. Male professors on average benefited from a bias on the part of male students in almost all the dimensions of teaching, in particular the quality of the presentation, the ability to be in touch with the latest developments, and participation in the student's intellectual development. The female students also tend to evaluate men more favourably on these criteria, but give more favourable evaluations to women on other teaching dimensions, including the preparation and organization of the lessons, the usefulness of the class materials, the clarity of their evaluation criteria and the relevance of their corrective

comments. The bias in the responses of the male and female students in favour of men on the criteria related to the presentation of the lessons in particular led to higher overall satisfaction scores for the male professors. However, other measures of teaching quality (such as exam results) tend to show that the education provided by women was as good as that provided by men. Furthermore, some teaching tasks for which women professors were more highly valued (only by women students) tend to be time-consuming. The women professors then find themselves with less time for other professional activities, such as research, for example.

Do teachers adopt strategic behaviours that undermine teaching quality (Condition 3)

Finally, numerous studies show that teachers can adopt strategic behaviours to improve their scores. Indeed, with the introduction of student evaluations, teachers are faced with the problem of the multitasking agent (Holmstrom and Milgrom, 1991; Neal, 2013): they must teach well, while getting good evaluations – goals that are not necessarily compatible, as Carrell and West (2010) demonstrate. The two strategic behaviours studied in the literature are a teacher's capacity for demagogy (the Dr. Fox effect), on the one hand, and generosity in scoring student work, on the other. Although there is no consensus as to the causal link between good scores given by teachers and good ratings given by students, it has been shown that the two are correlated (*e.g.* Isely and Singh, 2005).

Conclusion

Evaluations by students do not seem to meet the three conditions for an objective measurement of teaching quality. The question can also be raised as to whether the nature of educational activity can be measured objectively at all. But does this mean we should not set up systems for student evaluations? These evaluations can be useful, but they should

be interpreted with caution and be taken for what in all likelihood they actually are: a measure of the pleasure that students have in going to the lesson rather than a single, objective measure of the overall quality of teaching. The pleasure that a student feels in going to class is just one ingredient among many in good quality education. It is also necessary to try to take into account and correct the biases that students express in these evaluations by weighting the evaluation criteria so as not to discourage or unfairly penalize certain categories of teachers, especially women, whose evaluations are not as good simply because of gender stereotypes.

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Redistributive policies and the demand for fairness

par Gilles Le Garrec

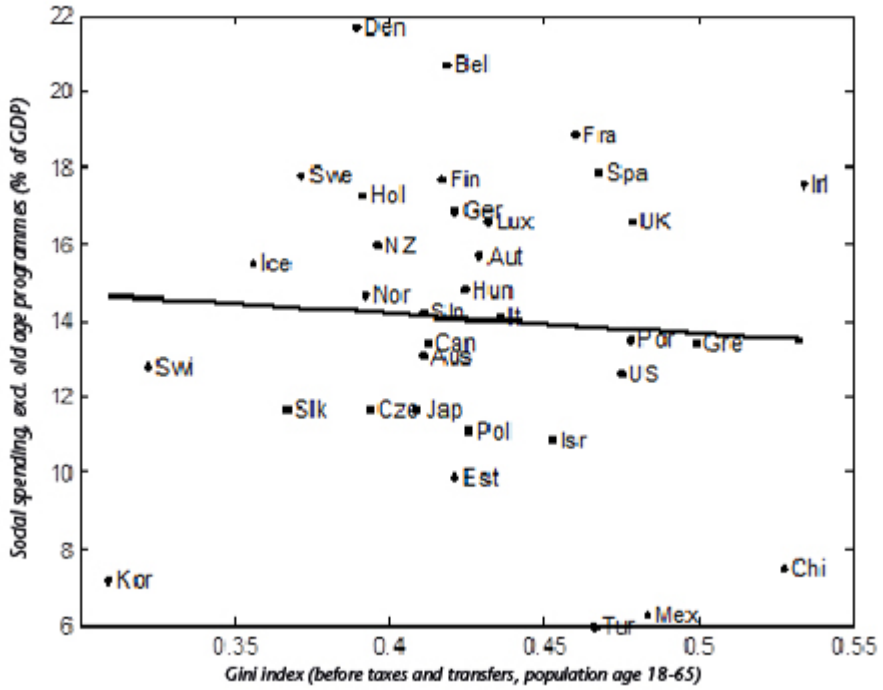
Six years after the onset of the Great Recession, France’s economic situation is still gloomy: growth is sluggish, there

are almost 3.5 million unemployed in mainland France, and the public debt is approaching the threshold of 100% of GDP (95.4% according to the 2014 Maastricht criteria according to the OFCE). One cause for satisfaction has been the ability of the social protection system to mitigate the increase in income inequality. The Gini index [1] calculated on the labour force (population age 18 to 65) shows that, between 2008 and 2011, inequality in market income increased by 2.9 percentage points while inequality in disposable income increased by only 1.8 points. To achieve this, social spending rose by 0.8 point, bringing it to 19% of GDP excluding old-age pension expenditures [2]. However, one of the fears associated with the crisis (due to its duration and magnitude) is that France can no longer afford to provide people with such a high level of social protection. Is this fear justified? Not necessarily.

Starting from the premise that in a democracy a policy can be carried out only if it has the majority support of its citizens, Meltzer and Richard (1981) suggest that increasing inequality leads to an increasing demand for redistribution, not because people have an aversion to inequality, but rather because they are motivated by their own interests. Therefore the poorer the median individual becomes in terms of income [3] compared to the average population, *i.e.* as the income distribution becomes more unequal, the greater will be that individual's interest in income redistribution. In this perspective, the increasing inequality generated by the economic crisis should result in an increase in social spending. Redistribution is thus not inflicted, but instead should have the support of a majority of the citizens. Though attractive in its simplicity, this explanation suffers from a major flaw: the data does not show any positive correlation between income inequality and redistribution. Typically, the level of inequality measured by the Gini index (before taxes and transfers) is 0.46 in France with respect to the labour force, versus 0.475 in the US, where the level of social spending is only 13% of GDP[4]. More generally, and as is

illustrated in Figure 1, this presumed correlation proves to be zero or even negative (see Perotti 1996 for an empirical review). To understand the possible weaknesses of the French social protection system, the analytical framework proposed by Meltzer and Richard (1981) will not be sufficient.

Figure. Income inequality and redistribution



Source: OECD, early 2010s.

This discrepancy between the observed facts and the theory has spawned several lines of research[5]. In particular, the assumption that individuals are motivated solely by self-interest has been challenged by a large number of laboratory experiments. Take, for example, the ultimatum game. In this game, two anonymous subjects must agree on how to divide a sum of money. The first participant must make an offer to share the sum. The second can then either accept or reject the offer. If he accepts, then the two share, otherwise neither gets anything. In theory, the first player, knowing that any positive offer will be accepted, should always offer the second player as little as possible. Contrary to this prediction, the results of the experiment show that many people offer 50% of the total to the second player, with an average offer of around 40%. Furthermore, any offer of less

than 25% of the total has a high chance of being rejected. These results demonstrate behaviours characterized by a sense of distributive justice. When people are asked outside the laboratory setting about the reasons why someone would favour redistribution, this is the particular reasoning given. Survey data also underscore that individuals tend to give greater support to redistribution when they think that poverty is caused by factors for which the victims are not responsible (see Fong, 2001). In line with these results, the belief that luck rather than effort determines income proves to be a better predictor than income inequality of how much redistribution takes place in a country.

Thus, in order to determine the ways in which concern for others can explain the differences in redistribution observed between democracies, the theoretical literature has focused on the formation of beliefs. In the approach of Alesina and Angeletos (2005), individual preferences combine personal interest and the demand for fairness. Specifically, fairness is defined according to the principle that *each person should get what they deserve*. Knowing that income depends on both luck and the effort exerted, the authors argue that the differences between the amounts redistributed in different countries result from different self-fulfilling beliefs. Americans, expecting little redistribution, invest more in their human capital and thus create the conditions for a low level of redistribution because the role of chance is reduced in the determination of income. Conversely, Europeans, expecting strong redistribution, invest less in their human capital. Luck is thus more important in the determination of income; individuals will therefore support strong redistribution in accordance with the principle of fairness. Furthermore, assuming that Americans and Europeans share the same preferences, Alesina and Angeletos highlight an important result: the low-redistribution American model is preferred by a majority of citizens over the European model because it produces less distortion and thus results in a higher overall

income. However, this does not mean that poor people do not prefer the model with strong redistribution.

In contrast to this result which is based on the assumption that Americans and Europeans share identical preferences, Corneo (2001) showed that West Germans incorporated collective motivations into their preferences, whereas Americans were motivated only by their own interests. The intensity of a collective motivation is thus culturally determined.

In this context, building on the approach proposed by Alesina and Angeletos (2005), Le Garrec (2014) has offered a mechanism for the cultural transmission of the intensity of the demand for fairness. In accordance with the socialization process, a person's observation during childhood of the previous generation's inability to develop a fair redistribution policy will reduce the moral cost to that person of not supporting a fair policy later in life. When someone is socialized in an environment characterized by a fair redistributive policy, the demand for fairness remains strong in the person's preferences: a system with strong redistribution (as in France) is perennial and perpetuated from generation to generation. Conversely, if people are socialized in an environment where the redistributive decisions deviate significantly from distributive justice, the internalization of the norm "*individual success comes first*" reduces the weight of the moral imperative in their preferences. In this case, a system with little redistribution (as in the US) is also sustainable. In Le Garrec (2014), the choice of a system will therefore depend on the respective histories of the nations[6].

In light of the way the canonical model of Meltzer and Richard (1981) has been extended, based on the demand for fairness observed at the individual level, can we understand the concerns expressed about the future of the French social welfare model, that is to say, a model characterized by strong redistribution? First note that in the later developments of

the model, since individuals are motivated in part by their own interests, the Meltzer-Richard effect continues to exist. Rising inequality tends to increase the level of redistribution, and this receives majority support in both Europe and the United States. However, based on the Alesina-Angeletos approach, the depth of the economic crisis could weaken the French model if it leads people to believe that it can no longer be financed. In this situation, the belief could become self-fulfilling and eventually lead to a sharp reduction in the generosity of the welfare system, with a shift towards a US-style system. This interpretation of the Alesina-Angeletos model (2005) is all the more credible as the low-distribution American model seems to be preferred by most Europeans. The exposure that could result from the crisis could then serve to change beliefs. This perspective, however, is not present in Le Garrec (2014), and rightfully so as preferences co-evolve with the social protection system. A French person will (on average) prefer strong redistribution because his or her preferences express a strong demand for fairness. From this point of view, the high redistribution model, like the low redistribution one, seems very durable. Nevertheless, in Le Garrec (2014) the sustainability of the high redistribution model requires a minimum consensus in society on the causes of injustice in order to ensure a moral standard that is relatively strong. However, the economic crisis in Europe is characterized precisely by strong disagreement about its origins: excessive debt on the part of households or government, fiscal austerity, monetary conservatism, divergence in competitiveness with a single currency, a lack of solidarity among nations, etc. From this perspective, the crisis could jeopardize the French model by weakening moral standards. Ultimately, in contrast to the approach of Meltzer and Richard (1981), the approaches of Alesina and Angeletos (2005) and Le Garrec (2014), which go more deeply into people’s motivations, offer keys to a different and complementary understanding of the potential dangers that could face the French social security system as a

result of the economic crisis.

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[1] The Gini index is based on a comparison between proportions of the population and their combined income. A value of 0 represents perfect equality, a value of 1 complete inequality.

[2] As the pension system is not aimed at reducing income inequality, but at providing deferred wages on the basis of what has been paid in, it is best to remove these expenditures in order to properly assess the capacity of social spending to reduce these inequalities.

[3] 50% of individuals have an income that is higher than this person's, and 50% lower.

[4] Social spending (and taxation) is also less progressive in the United States than in France. Thus, social spending of 1% of GDP would reduce the Gini index by 1.74% in France compared with 1.46% in the United States.

[5] See Alesina and Glaeser (2004) and Acemoglu *et al.* (2013) for an overview of the various extensions made to the canonical model.

[6] It is beyond the scope of this note to analyze the historical facts that would help explain the convergence towards one type of social protection model rather than another. For this, please refer to the work of Alesina and Glaeser (2004).

Is France's trade deficit

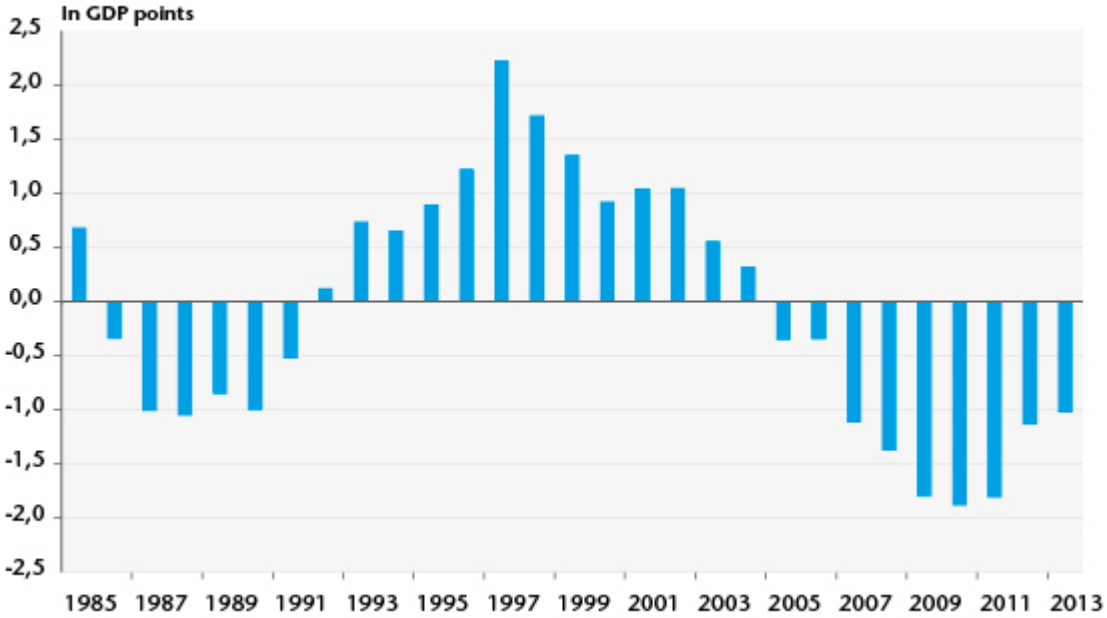
entirely structural?

By Eric Heyer

The issue at the heart of the debate between those arguing that a lack of supply is behind the low level of activity in France over the last four years and those arguing that the problem is a lack of demand is the nature of the country's trade deficit.

On the one hand, the French economy has a number of symptoms characteristic of an economy experiencing a shortfall in demand: strong disinflation, high unemployment, businesses declaring substantial spare capacity due mainly to a lack of demand, etc. But, on the other hand, the existence of a persistent deficit in the trade balance (Figure 1) casts doubt on the competitiveness of French firms and on their capacity to meet additional demand, which would thus express a problem with supply.

Figure 1. French trade balance since 1985



Source: INSEE.

So, after more than ten years of trade surpluses, which represented over 2 GDP points in 1997, France's trade balance

turned negative in 2005. After widening gradually until 2010 when the deficit reached nearly 2 GDP points, the trend turned around. In 2013 (the latest available figure), the trade deficit still stood at 1 GDP point.

This observation is not however sufficient to dismiss all the arguments of the proponents of a demand shortage that France simply suffers from a supply problem. What is needed at a minimum is to analyze the nature of the deficit and try to separate its structural component from its cyclical component. The latter is the result of a difference in the economic cycle between France and its major trading partners. When a country's situation is more favourable than that of its partners, that country will tend to run a deficit in its trade balance linked to domestic demand and thus to more buoyant imports. A trade deficit may thus arise regardless of how competitive the country's domestic firms are.

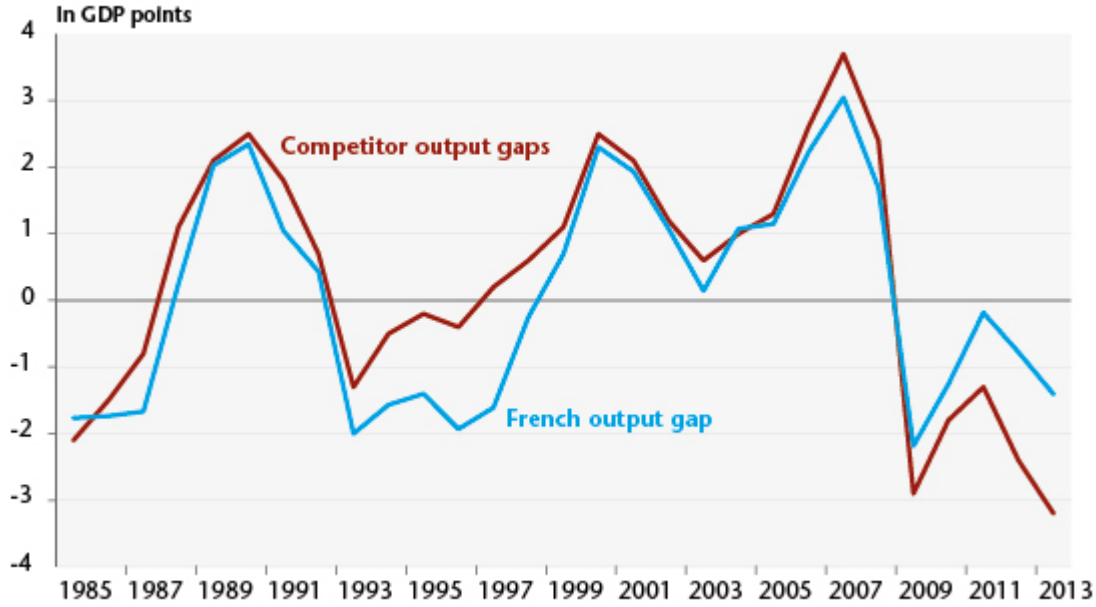
One way to take this cyclical gap into account is to compare the gaps between an economy's actual output and its potential output (the output gap). At the national level, a positive output gap (respectively negative) means that the economy is in a phase of expansion (respectively of contraction) of the cycle, which, other things being equal, should lead to a cyclical deterioration (or improvement) in its trade balance. In terms of the trading partners, when they are in a cyclical expansionary phase (positive output gap), this should lead to a cyclical improvement in the trade balance of the country in question.

Using data from the latest issue of the OECD's *Economic Outlook* (eo96), we calculated an "aggregate" output gap for France's partners by weighting the output gap of each partner by the weight of French exports to that country in France's total exports.

This calculation, shown in Figure 2, highlights two points:

1. The first is that, according to the OECD, France's output gap has been negative since 2008, signalling the existence of room for the French economy to rebound.
2. The second is that the economic situation of our trading partners is even worse. The cyclical gap, measured by the difference between the output gaps of France and of its partners, indicates a significant difference in favour of France.

Figure 2. The output gap of France and its main trading partners



Source: OECD, eo96.

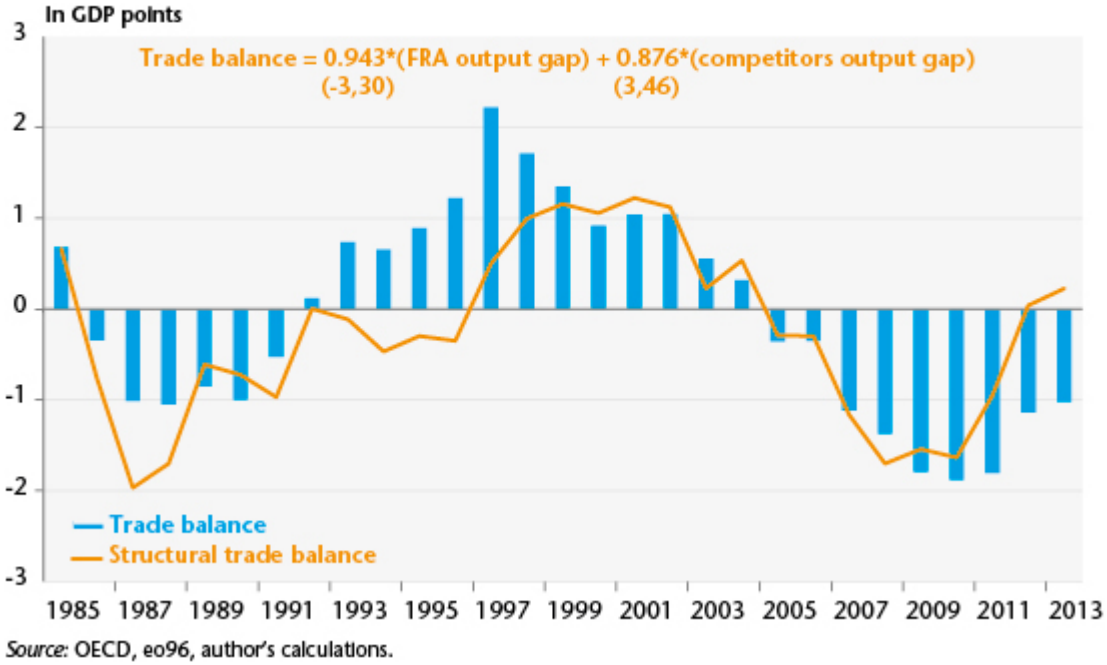
It is then possible to assess the impact of the cyclical situation of the country and that of its main partners on the trade balance.

A simple estimate using Ordinary Least Squares over the period 1985-2013 shows a relationship of cointegration between these three variables (trade balance, output gap of France and output gap of its partners) for France. The signs obtained are consistent with what we would intuitively expect: when France is in an expansionary phase, its trade balance tends to worsen (coefficient of -0.943). In contrast, when rival countries are experiencing a boom, this makes for an improvement in France's trade balance (coefficient of +0.876).

France's structural trade balance since 1985 can then be calculated by subtracting the cyclical effect (national and competitors) from the observed trade balance.

Figure 3 shows this calculation. First, the fall in the euro in the late 1990s led to a structural improvement in France's structural balance. The sharp deterioration in the trade balance between 2001 and 2007 would then be entirely structural: it would be explained in particular by China's entry into the WTO, by the competitive disinflation policy adopted by Germany, and by the appreciation of the euro. Since the 2008 crisis, however, an increasingly substantial portion of the French trade deficit would be cyclical. So even if French growth were sluggish, the country's economic difficulties were nonetheless less dramatic than in the case of some of its trading partners[1]. It is this relatively more favourable performance compared to its major trading partners that would have led to the rise of a trade deficit, part of which was cyclical. By 2013, the imbalances in the current account would be entirely cyclical in origin.

Figure 3. France's structural trade balance based on OECD data



Source: OECD, eo96, author's calculations.

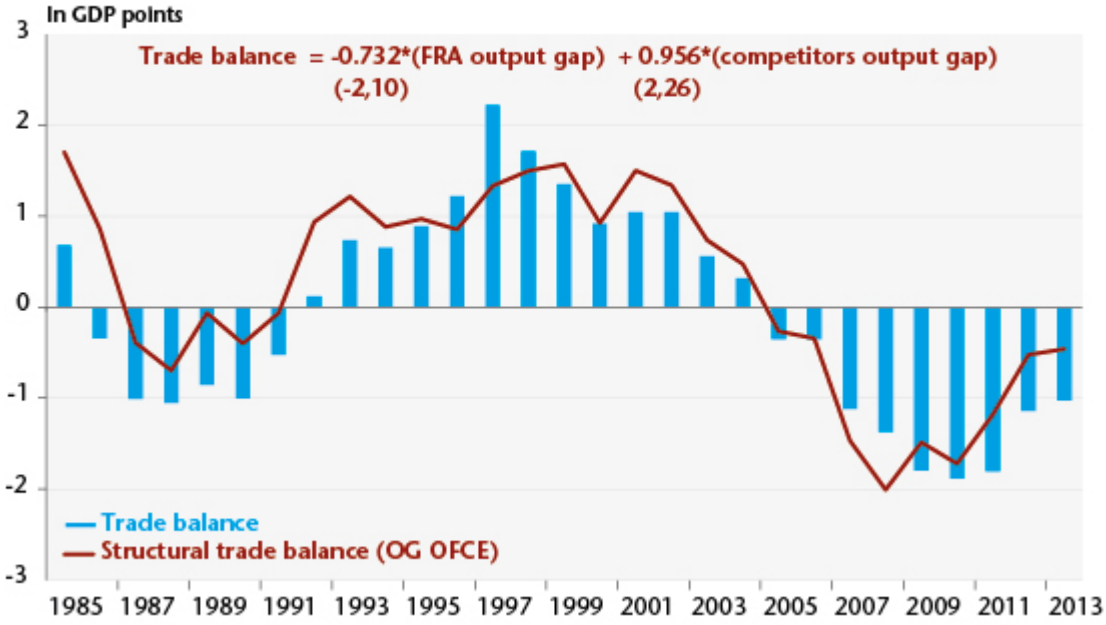
This result echoes the analysis provided by the French

national accounting office on the factors driving growth over the last four years: the level of real GDP in the third quarter of 2014 was only 1.4% higher than in first quarter 2011. An analysis of the factors contributing to this performance is unambiguous: private demand (household and business) was down sharply (-1.6%), particularly household consumption, the traditional engine of economic growth. While there are more households today than four years ago, their total consumption was 0.6% below their 2011 level. However, while the French economy's ability to deal with the global competitive framework is being questioned by the dominant discourse, foreign trade has in fact had a very positive impact in the last four years, with a boost from exports, which contributed a positive 2 GDP points to growth. In short, for four years the French economy has been driven mainly by exports, while it has been held back by private demand.

This analysis is of course based on an assessment of output gaps, whose measurement is tricky and subject to sharp revisions. In this respect, while there is an institutional consensus on the estimate that France has a negative output gap, there is also a broad range in the magnitudes of the room for a rebound, ranging in 2014 from 2.5 to 4 points, depending on the institution (IMF, OECD, European Commission, OFCE).

This diagnosis would be somewhat attenuated if an output gap were used for France that was more negative than the one calculated by the OECD: using the OFCE's estimate for France (an output gap of -2.9 GDP points in 2013 instead of the OECD's -1.4 points) and retaining the OECD measure for its partners, France's more favourable relative performance compared to its major trading partners would now explain only half of its trade deficit[2]. Part of the deficit observed would therefore be explained by the competitiveness problems of French business (Figure 4).

Figure 4. France's structural trade balance based on OFCE data



Source: OECD, eo96, author's calculations.

In conclusion, as with any measurement of a structural variable, the evaluation of the structural trade balance is sensitive to the measure of the output gap. Nevertheless, it is clear from this brief analysis that:

- If the French economy is considered to suffer mainly from a supply problem (output gap close to zero), whereas our partners, mainly European, face a shortfall in demand (negative output gap), then the deficit in our trade balance would essentially be cyclical.
- However, if France, like its partners, is also experiencing a shortfall in demand, then only part of our deficit is cyclical, and the rest is related to a problem with the competitiveness of our companies.

This last point seems to us closer to the actual situation of the French economy. While French companies' have undeniably lost some competitiveness, this should not be overestimated: the sluggishness that has characterized our economy for nearly four years is due not only to a lack of supply and the disappearance of the potential for growth – even if this is unfortunately likely to taper off – it is also due to a significant decline in demand.

[1] For example, Italy and Spain entered a second recession in third quarter 2014, leaving their GDP lower than its pre-crisis level by 9% and 6% respectively.

[2] We find a similar result when the previous version from the OECD (eo95) it used for France and all its partners.

The Greek debt – a European story …

By Catherine Mathieu and Henri Sterdyniak

At end 2014, Greece's debt was 317 billion euros, or 176% of its GDP, up from 103% in 2007, despite debt relief of 107 billion in 2012[1]. This debt is the result of a triple blindness, on the part of: the financial markets, which lent to Greece until 2009, heedless of the unsustainable level of its public deficit (6.7% of GDP in 2007) and its trade deficit (10.4% of GDP in 2007); the Greek government and ruling elite who, thanks to the low interest rates permitted by its membership in the euro zone, allowed unbalanced growth, based on financial and real estate bubbles, corruption, poor governance, fraud and tax evasion; and Europe's institutions, which after the laxism of 2001-2007, imposed crushing, humiliating austerity programmes on the country, with the oversight of the troika, a strange threesome consisting of the International Monetary Fund (IMF), the European Central Bank (ECB) and the European Commission (EC). In the eyes of the troika, the austerity programmes were needed to cut the public

deficit and debt and put the Greek economy on a path to growth. While the programmes did indeed help to reduce the public deficit (which was only about 2.5% of GDP in 2014, i.e. after excluding interest expenses, a surplus of around 0.5% of GDP), they have pushed up the ratio of debt to GDP, due to the collapse in the country's GDP, which is now 25% less than in 2008. Austerity has above all plunged Greece into economic and social distress, as is sadly illustrated in an unemployment rate of over 25% and a poverty rate of 36%.

The tree of Greek debt must not, however, hide the forest: from 2007 to 2014, the public debt of the OECD countries as a whole increased from 73% of GDP to 112%, reflecting profound imbalances in the global economy. Due to financial globalization, the victory of capital over labour and growing inequality, the developed countries need large public debts; these debts are generally not reimbursable, since reimbursement assumes that agents with a surplus agree to run deficits.

Take the example of Germany. It wants to maintain a large external surplus (7% of GDP), which weighs down its European partners and has contributed to an excessively strong euro. In order for Greece and other European countries to repay their public debts, they need to be able to export, especially to Germany; Germany would in turn have to accept an external deficit and thus greatly increase public spending and wages, which it does not want to do. The contradictory demands of the surplus countries (to maintain a surplus but be repaid) are leading the entire euro zone into depression. Fortunately for the European economy, neither France nor Italy is adhering strictly to its European commitments, while the UK is not subject to them.

Can we require Greece to continue to meet its European commitments, which have led to a deep depression? To reduce its debt to 60% of GDP within 20 years? The effort needed to do this depends on the difference between the interest rate

paid on debt (1.9% in 2014) and the nominal rate of GDP growth (-1.2% in 2014). Even if Greece managed to accelerate its growth so that the growth rate equalled the interest rate for its loans, it would still have to turn over 6% of its GDP every year; this drain would unbalance the economy and put the brakes on growth. The Greek people cannot be asked to make further economic and social sacrifices.

If Greece were an emerging country, the solution would be obvious: a strong devaluation and default on the debt. The euro zone, on the contrary, cannot be maintained without solidarity between its members and without a turnabout in its economic policies. Europe cannot ask Greece's new government to maintain an austerity programme that has no prospects or to abandon its electoral programme and implement the failed policy negotiated by the previous government. A refusal to compromise would lead to the worst result: a showdown, a financial freeze on Greece, and then its withdrawal from the euro zone and perhaps the EU. The people would rightly feel that Europe is a straitjacket and that democratic votes don't count. On the other hand, it will be difficult for the northern European countries and the Commission to give up their demands: tight control of national fiscal policies, a reduction in public debts and deficits, conditionalities on aid, privatization policies and structural reforms.

Syriza's programme includes the restoration of social welfare and the public services as well as a decent standard of living for retirees and employees, but also, very clearly, tax reform, the fight against corruption and bad governance, and the search for a new development model based on the renovation of production and re-industrialization, driven by the State and a restored banking sector, based on public and private investment. This is an ambitious path that presupposes a fight against greed and the inertia of the dominant classes by mobilizing the whole of society, but it is the only future with promise.

The only solution is a compromise that would open the door to a new policy in Europe. Let's distinguish the Greek question from the European question. Europe's institutions must agree to negotiate a restructuring of Greek debt. This 317 billion euro debt is now held as follows: 32 billion by the IMF, and 223 billion by the ECB, the European Financial Stability Facility, and the other Member States, i.e. 80% by public institutions. This enabled the private sector to shed Greek debt, but it has not helped the Greek economy. Greece already benefits from low interest rates and lengthy repayment deadlines [2]. Given the low level of current interest rates and the hunger of financial investors for the risk-free sovereign debt of most Member States, there is no reason for a default on Greek debt; it simply needs to be restructured and secured. We must avoid a situation where every year Greece is in the position of having to repay and refinance an excessive amount of debt, and thus finds itself at the mercy of the capital markets or new negotiations with the troika. Greece needs a long-term agreement based on mutual trust.

Europe should give the Greek people time for their economy to recover. Greece's debt needs to be made sustainable by converting it into very long-term secured debt, possibly confined within the European Stability Mechanism, so that it is sheltered from speculation. This debt could be financed by Eurobonds with very low rates (0.5% at 10 years, or even slightly negative rates by issuing securities indexed to inflation). European taxpayers would thus not be saddled with the burden, and the Greek debt load would be acceptable. It is Greek economic growth that will make it possible to cut the ratio of debt to GDP. The reimbursement should be limited and, as proposed by Greece, depend on growth (e.g. be zero when the volume of growth is less than 2%, and then 0.25 GDP point per additional point of growth). The agreements with Greece should be reviewed to allow the new government to implement its programme for social and production renewal. Two key points must guide the negotiations: that responsibility for the

situation is shared between Greece and Europe, that each must bear its share of the burden (the banks have already undergone a partial default); and that Greece must be helped to recover from its deep depression, which means support for consumption in the short term, and in the medium term stimulating and financing the country's productive renewal.

France should support Syriza's proposal for a European conference on debt, because the problem is not just Greek. The Greek experience merely exemplifies the structural problems with Europe's economic governance and the challenges facing all the Member States. This governance needs to be overhauled in order to overcome the economic, social and political crisis gripping the euro zone. The turning point represented by the Juncker Plan must be given resolute support (investment support of 315 billion euros in three years), as must the ECB's quantitative easing programme (1140 billion in 18 months).

The public debts of the euro zone countries must be guaranteed by the ECB and all the Member States. To absorb them, the ECB must keep long-term rates well below the rate of growth, which will require taxing financial activities and controlling the orientation of bank loans to prevent the rise of speculative bubbles. Instead of cutting public and social welfare spending, Europe must coordinate the fight against tax competition and tax evasion by the wealthy and by multinational firms. The unsustainable fiscal straitjacket imposed by the Stability Pact and the European fiscal treaty must be replaced by the coordination of economic policies aimed at full employment and resolving imbalances between euro zone countries. Finally, Europe must propose a strategy for recovery from the crisis based on boosting domestic demand in the surplus countries, coordinating wage policies, and supporting investments that prepare the ecological and social transition. The challenge here is crucial. We need to rethink the way economic policies are organized in Europe in order to

allow countries to conduct policies that are different and autonomous, but coordinated. This is the only way the euro zone can survive and prosper.

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[1] More than half of which was used by the Greek state to secure the country's banking system.

[2] Moreover, the ECB Member states are repaying it any gains that they make on Greek bonds.

Who has the best playing field for tax competition: the United States or the European Union?

By Sarah Guillou

Two recent events demonstrate the differences in the American and European views on tax competition. First was the case of Boeing, which the European Union (EU) has brought before the World Trade Organization (WTO). The EU is challenging the tax incentives offered by the State of Washington to the American aircraft maker. Then there is the European Commission's investigation of Luxembourg's tax provisions that benefit

Amazon, the Internet retailer. Boeing and Amazon both make massive use of tax competition. While this is widespread and accepted in the United States, it is being increasingly questioned in the EU, and even excluded by law if it is classified as illegal State aid.

In the Boeing affair, in December 2014 the EU filed a request for consultations with the WTO regarding the tax subsidies paid by the State of Washington for the manufacture of the new Boeing 777X. This aid would amount to 8.7 billion dollars for assembly in the State. This programme was set up in November 2013 by the State of Washington, and the governor has now decided to extend it until 2040! The incentives are conditioned on the use of local products, i.e. the aid is linked "to local content requirements ". However, these requirements are contrary to the WTO Agreement on Subsidies and Countervailing Measures. We are not going to discuss here the EU's complaint, which is awaiting a response from the US, and which is part of an ongoing dispute between Boeing and EADS about their respective public subsidies. This case, however, offers an opportunity to take a look at the intensity of tax competition that exists between the various States in the US.

While the US, like the EU, is concerned with non-discrimination, which is set out in the doctrine of the Commerce Clause of the US Constitution, in practice it has been difficult for case law, which performs an *a posteriori* control, to provide a definition of discrimination that makes it possible to prevent discriminatory regulations. The result has been that the American States are free to offer subsidies and tax breaks to companies, or sometimes specific companies, to attract investment and jobs. Recall that in Europe, controls on State aid are performed *a priori* and that granting subsidies to any specific companies is totally excluded (see Guillou, 2014, OFCE blog). In the US, Boeing is a major player in this tax competition.

An American research center "goodjobsfirst", which tracks the aid and subsidies granted to companies by public institutions, showed that a mere 965 companies received 75% of all aid. It is Boeing that receives the most aid. This comes mainly from two States, Washington and South Carolina, with numerous subsidies (130 agreements) from all over the United States. The combination of all the aid brought to light amounts to 13 billion dollars. Boeing comes far ahead of all other companies, as second-place Alcoa receives less than half as much (5.6 billion dollars). Another study found that 22 States competed to host the production of the new 777X airliner, but Boeing ultimately decided to stay in the Seattle area and entered a 16-year tax agreement with the State of Washington that is estimated to be worth more than 8.7 billion dollars, the largest tax break in the United States. Business lobbying is much more common in the United States than in Europe, which explains much of the competition between States to attract business. While the United States has complained of foreign tax competition (especially vis-à-vis Ireland), it accepts this completely on its own territory. This is not the prevailing position in the EU, of course, as the EU is not fiscally integrated.

Indeed, in Europe, tax harmonization is not yet on the agenda. But tax competition is being increasingly debated. This has not been in vain, as this pushed Ireland to abandon its "double Irish" system that allowed certain companies located in Ireland to be taxed in tax havens. Companies taking part in this tax scheme began the process of withdrawal in January 2015. While differentiated taxation is still accepted in Europe, excessive tax competition has been considered intolerable in the common market. When companies' tax optimization strategies come together with national strategies to attract jobs and investment, the ingenuity of the tax authorities becomes a threat to the common market. What is most worrying is the legitimization of the avoidance of common tax rules.

European controls on State aid act as a powerful guardian over the use of public resources and on non-discrimination in the European market. These controls could well become an instrument in the fight against tax “loopholes”, vulnerabilities in the tax system that result in significant losses of public resources. The case against Luxembourg concerns its system of “tax rulings”. The tax ruling is a procedure whereby a State negotiates with a company about its future tax status. This procedure, which has been called the “marketing of State sovereignty”, is widespread in Luxembourg and was brought to light by a recent investigative report published in November 2014 (*Le Monde*), which shows that Luxembourg is not the only country to use these “tax rulings”.

Luxembourg attracts a large number of multinational firms that choose the location of their European headquarters based on tax optimization. It is the EU country with the lowest percentage of GDP (the production of residents) out of GNP (domestic production): this figure was only 64% in 2013, against just over 100% for France and Germany. In other words, Luxembourg lost more than one-third of its national income once the payment of income to resident foreign companies was taken into account (net of income received). This reveals the fiscal opportunism of the numerous multinationals located in Luxembourg, for which the local market is clearly not a target.

In this case, Luxembourg has granted Amazon a valuation of its transfer pricing that the European Commission (EC) considers overestimated, which thus leads to underestimating the tax base (see the recently released EC decision).

Transfer prices are the prices of the goods and services traded between subsidiaries of the same corporation. These exchanges should theoretically be valued at market prices, that is to say, the price that would be paid by a company that is not a subsidiary of the corporation. The way these prices are decided may change the amount of a subsidiary’s purchases

and revenues, and thus its profits. The logic of the corporation is to minimize profits where tax rates are high and shift them to where rates are low. It is not so much the price of goods that are manipulated as the price of intangible assets such as patents, copyrights or other intellectual property (trademarks, logos, etc.). Multinationals that hold intangible capital, such as the giants of the Silicon Valley, are the ones that most commonly engage in this type of manipulation.

One way to prevent the manipulation of transfer pricing in Europe would be to make it obligatory to calculate a common consolidated corporate tax base. This is the purpose of the draft CCCTB directive from 2011, which is still under discussion. Trade-offs between the various European countries would be pointless, as the tax base would be consolidated and then distributed among the member States based on a formula that takes into account fixed assets, labour and sales. The States would retain control of their tax rate on corporations. It is expected that this common base scheme would be optional. It is not certain that this would suffice to get the directive passed, as in fiscal matters this demands a unanimous vote whereas, for the moment, there is a great deal of disagreement.

On the other side of the Atlantic, the United States has a consolidated tax base system at the national level and a common federal tax rate on corporations. But local taxes, which can vary between 1% and 12%, are generally deductible from the federal tax calculation. The issue of transfer pricing between subsidiaries in different States may therefore also arise. And this is especially so, given that the local tax rate on profits is subtracted from the various tax credits awarded to certain companies.

The outcome of the investigation into Luxembourg and Amazon will be important for the future of the CCCTB Directive, in particular the version that affects only digital businesses.

If the day has not yet come when the EU rules that “banking secrecy is a disguised form of subsidy” (G. Zucman, The hidden wealth of nations), the investigation into Amazon indicates that the EU is beginning to put some limits on tax competition that could soon make American taxpayers jealous.

Flexibility versus the new fiscal effort – the last word has not been spoken

By Raul Sampognaro

On 13 January, the Juncker Commission clarified its position on the flexibility that the Member States have in implementing the Stability and Growth Pact (SGP). The new reading of the SGP should result in reining in the fiscal consolidation required for certain countries[1]. Henceforth, the Commission can apply the “structural reform clause” to a country in the corrective arm of the Pact[2], whereas previously this was only possible for countries in the Pact’s preventive arm[3]. This clause will allow a Member State to deviate temporarily from its prior commitments and postpone them to a time when the fruits of reform would make adjustment easier. In order for the Commission to agree to activate the clause, certain conditions must be met:

– The reform plan submitted by the Member State must be major and detailed, and approved by the Government or the National Parliament; its timetable for implementation must be explicit and credible;

– The plan must have a favourable impact on potential growth and / or the public finances in the medium-term. The quantification of the impact should be carried out transparently and the Member State must submit the relevant documentation to the Commission;

– The Member State must make a structural budget improvement of at least 0.5 GDP point.

In this new context, France has reforms it can point to, such as the regional reform and the law on growth and activity, the so-called Macron law. According to OECD calculations from October 2014, the reforms already underway or being adopted [4] could boost GDP by 1.6 points over the next 5 years while improving the structural budget balance by 0.8 GDP point[5] (the details of the impacts estimated by the OECD are shown in Table 1).

Table 1. Impact on GDP of the reforms underway or announced

In points

Reforms	Impact on GDP at 5 years	Impact on GDP at 10 years
Reforms underway	1.2	3.0
Greater competition (administrative simplification shock and first measures on regulated professions)	0.2	0.3
Labour market reform	0.6	1.3
– including CICE tax credit and Responsibility Pact	0.5	1.1
– others (unemployment insurance reform, active policies)	0.1	0.2
Modification of tax system	0.1	0.4
Creation of "metropoles" (Paris and Aix-Marseille)	0.3	1.0
Reforms announced	0.4	0.7
Increase in competition in electricity and gas and reform of the regulated professions (reform a little broader than the Macron law)	0.4	0.7

Source: OCDE (2014), "France. Structural reforms: impact on growth and options for the future". October 2014.

In March, the Commission will decide whether France's 2015 Finance Act complies with the rules of the SGP. To benefit from the structural reform clause, France must then meet certain conditions:

1) The outline of the reforms needs to be clarified: at end December 2014, the Commission felt that there were still many lingering uncertainties concerning the regional reform and the content of the Macron law, uncertainties that will be

resolved in the course of the parliamentary process.

2) The Ministry of Finance at Bercy must produce credible assessments of the impact of the Macron law, while the Commission will carry out its own evaluation. The Commission has already noted that the OECD's calculations will constitute the upper bound of the impact.

The evaluation of the 2015 Finance Act may result in the imposition of financial sanctions on France, unless the government decides to go for a greater fiscal adjustment. The Commission warned in late November that further steps would be needed to ensure that the 2015 budget complies with the SGP. Indeed, the Commission found that the adjustment was only 0.3 GDP point, while in June 2013 France had committed to an annual structural adjustment of 0.8 point in 2015 to bring its deficit below 3% in 2015[6].

While the Commission approves the positive effects expected from the reforms, there is a problem with the application of the "structural reform clause": the structural budgetary adjustment is still below 0.5 GDP point, which prevents the application of the new clause. France therefore still faces the threat of sanctions, despite the new doctrine.

While this analysis of the document published on January 13 shows that the Commission has given the Pact greater flexibility, it also shows that the Commission expects France to make a larger fiscal adjustment. This would be on the order of 4 billion euros (0.2 percent of French GDP) instead of the 8 billion (0.4 percent of GDP) that would have been expected back in October (the impact of a strict reading of the Pact has been analyzed here).

The Government's refrain is that it does not wish to go any further with fiscal adjustment, that this is not desirable in the current economic climate: 2015 could be a year for recovery provided that the risk of deflation is taken

seriously. There is a lot of support for economic activity, including lower prices for oil and the euro, an expansionary monetary policy and the Juncker plan, even if the latter needed to go much further. However, France's fiscal policy is continuing to be a drag, and just how much so will remain uncertain until March. From now till then, with the terms of the debate clearly spelled out, everyone will need to take the risk of deflation seriously.

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[1] The Commission permits subtracting investments made under the Juncker Commission Plan from the deficit calculation; it clarifies the applicability of the "structural reform clause" and moderates the speed of convergence towards the medium term objectives (MTO) for countries in the preventive arm of the Pact based on their position in the business cycle.

[2]*Grosso modo* this means countries with a deficit of more than 3%.

[3]*Grosso modo* this means countries with a deficit of less than 3%.

[4] Which goes beyond the Macron law alone and includes the CICE tax credit and the Responsibility Pact.

[5] The OECD data were used by the Prime Minister in his October 27 letter to the Commission.

[6] In its 2014 autumn forecast, the Commission quantified the adjustment at 0.1 GDP point, but this figure is not directly comparable with the commitment of 0.8 point from June 2013. Once the changes in national accounting standards and the unpredictable changes in certain variables are taken into account, the corrected adjustment is 0.3 GDP point. This figure is the calculation basis for the excessive deficit

procedure.

Working in the United States: longer, harder, and …. on weekends!

By Elena Stancanelli, Paris School of Economics, CNRS and Research Associate at the OFCE[1]

Americans now work longer hours than Europeans. Daniel Hamermesh and Elena Stancanelli show in "*Long Workweeks and Strange Hours*" that the lengthening of the workweek in the United States has gone hand in hand with more work at night and on weekends.

The authors' results are based on mining a unique set of data, the American Time Use Survey and a panel of European individuals that accurately measures employee working time (weekly, week-ends, at night) as well as a range of other activities (leisure, child care, domestic work, rest periods, etc.) using daily time diaries [2]. The individuals are interviewed about the entire day (24 hours) using ten-minute slots (144 ten-minute slots are filled in for each individual). These data are collected by the national statistical institutes for representative samples of the population, on an annual basis in the United States but much less frequently in Europe. For example, in France, the *Emploi du temps*(EDT) survey is collected by the INSEE statistics institute once every twelve years.[3]

In the US, over 30% of employees work more than 45 hours per week, a much higher rate than in France, Germany or the Netherlands (Table 1). The number of hours worked per person has fallen significantly in the last two decades in almost all OECD countries. The only exception is the United States, where hours worked fell by only 2% from 1979 to 2012, compared with, for example, an 18% reduction in France (Table 2). It is therefore not very surprising that one in three American workers are working weekends, versus fewer than one in five in France, Germany and the Netherlands (Table 1). Night work, defined as working between 10pm and 6am, is even less widespread in France, as it affects only 7% of workers, compared with over 25% in the United States and 10-15% in Germany and the Netherlands (Table 1). Furthermore, weekend work is usually performed by less-qualified individuals, immigrants and women, that is to say, by those with little bargaining power (Kostiuk, 1990; Shapiro, 1995). This tends to confirm the arduous nature of weekend work and its compulsory character. In contrast, people who work nights have more varied characteristics. Even so, more educated workers are less likely to work at night, which, again, would suggest its onerous character.

Finally, a simulation shows that, even if we assume that the United States were identical to the European countries in terms of both demographic characteristics and the structure of employment (occupational sectors, type of employment, hours worked) [4], this still fails to explain why Americans work so much and on weekends and at night (Hamermesh and Stancanelli, 2014). What is the reason for this? The importance of cultural differences between the US and Europe? The existence of institutional differences? A complex interaction between culture and institutions? This is a wide-ranging debate that has barely begun.

In any case, one key result of this study is to highlight the socially undesirable character of work on weekends, due to the

damage this can cause to family relations (Jenkins and Osberg, 2005) and to social life (Boulin and Lesnard, 2014). Food for thought for our MPs during the vote on the economic reforms in the Macron bill?

Table 1. Duration and time of work

In %

Weekly work hours	États-Unis 2003-11	France 1998-99	Allemagne 2001-02	Pays-Bas 2000, 2005	Roy.-Uni 2000-01
Hours:					
1-19	5,2	5,8	8,5	16,9	13,1
20-34	12,5	16,6	17,4	27,0	15,6
35-44	50,5	74,0	56,4	41,1	39,7
45-54	19,6	2,6	10,6	10,2	18,2
55-64	8,3	0,6	5,1	3,6	8,5
65+	3,9	0,4	2,0	1,2	4,9
Average hours o f work per week:	41,0	35,7	36,9	32,8	38,6
Work on weekends: Percentage of employees weekends	34,3	21,8	22,3	21,1	27,3
Hours worked on weekends, on average (per day)	5,5	5,3	4,5	5,5	6,2
Work at night (10pm-6am): Percentage of employees working nights	26,6	7,3	13,0	10,4	21,6

Source: Daniel Hamermesh and Elena Stancanelli, "Long Workweeks at Strange Hours", NBER Working Paper n° 20 449, September 2014 or *Document de Travail de l'OFCE*, n° 27.

Table 2. Hours worked per person employed

Annual average

	Years		Change
	1979	2012	In %
Australia	1832	1728	-5,7
Canada	1841	1710	-7,1
Denmark	1636	1546	-5,5
Finland	1869	1672	-10,5
France	1804	1479	-18,0
Japan	2126	1745	-17,9
Netherlands	1556	1381	-11,24
Sweden	1530	1621	+5,95
United Kingdom	1813	1654	-8,8
United States	1829	1790	-2,1

Source: OECD Employment Outlook, 2013.

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[1] The author would like to thank Sandrine Levasseur, editor of the OFCE Blog, for her helpful comments and valuable suggestions.

[2] The authors use the harmonized version of the data made available by a group of researchers from Oxford University (see Gershuny and Fisher, 2014).

[3] These data are based on the average of the 2010 years for the United States and for different years in the early 2000s for the European countries. For France, we decided to use the

1998-1999 *EDT* data, as the most recent survey, for 2009-10, took place in the midst of the economic crisis, which could have affected the pace of work. In addition, teachers were visibly oversampled there, which would tend to distort international comparisons, as weightings do not perfectly correct the distortions. It seems very unlikely that the difference between the US and the European countries has narrowed in recent years.

[4] For the United States, the regressions also include fixed effects for the various States, in order to capture institutional differences from one State to another.

The Greek Sisyphus and its public debt: towards an end to the ordeal?

By Céline Antonin

After its failure to elect a new President by a qualified majority vote, the Greek Parliament was dissolved, with early elections to be held on 25 January 2015. The radical left party Syriza is leading the opinion polls on the election, ahead of the "New Democracy" party of the outgoing Prime Minister, Anthony Samaras. While Syriza's economic programme has met with enthusiasm from the population, it has aroused concern from the Troika of creditors (IMF, ECB and EU), particularly on three issues: the country's potential withdrawal from the euro zone, the implementation of a fiscal stimulus, and a partial sovereign default. This last topic

will be the main issue after the elections.

The election's real stakes: restructuring Greece's public debt

Fears about Greece's potential exit from the euro zone (the infamous "Grexit") need to be nuanced. The situation is different from what it was at the time of the sovereign debt crisis, when bond rate differentials were fuelling worry about contagion and the breakup of the euro zone. Furthermore, Syriza is not in favour of leaving the euro, and no-one can force the country's hand, given that there is no provision for this in any text. Finally, the consequences of such a decision on the other members could be severe, so that a Greek withdrawal from the euro zone would come only as a last resort.

Syriza is calling for an end to austerity and for a fiscal stimulus of 11 billion euros along with restoring the minimum wage to its previous level, better pensions, rehiring civil servants and increased public spending. Can a compromise be reached with the Troika? Nothing is less sure, and it is virtually certain that Syriza will have to revise its ambitions downwards. The Greek deficit has of course shrunk. The country ran a small primary surplus in 2014 and is expected to continue its fiscal consolidation policy in 2015-2016. But Greece must continue to borrow to finance the interest on the debt, to repay or renew the debt reaching maturity and to repay the loans from the IMF. To do this, Greece must rely largely on external aid. From the second half of 2015, the country will face a financing gap of 12.5 billion euros (19.6 billion euros if it does not get IMF assistance). Moreover, Greece's still fragile banks[1] are very dependent on access to the ECB's Emergency Liquidity Assistance Program (ELA), which allows them to obtain emergency liquidity from the Bank of Greece. If Greece rejects the reforms, a showdown with the Troika is likely. The ECB has already threatened to cut off the country's access to liquidity. In addition, the Troika is the main creditor of Greece, which however has a new

bargaining point: to the extent that Greece borrows only what it needs to repay its debt, and not to fund its budget deficit, it could threaten its creditors with a unilateral default on payments, even if this is a dangerous game that could deprive it of access to market financing for many years to come.

It is precisely this issue of restructuring Greece's debt and a partial default that is being emphasized by Syriza and which will likely be one of the main post-election issues. Alexis Tsipras wants to cancel a portion of the public debt, to put a moratorium on interest payments, and to condition repayments on the country's economic performance. According to forecasts by the EU Commission and the IMF, Greece's public debt ratio is expected to fall from 175% of GDP in 2013 to 128% in 2020. However, the assumptions underlying this scenario are not realistic, *i.e.* nominal growth of more than 3% in 2015, a primary surplus of 4.5% of GDP between 2016 and 2019, etc. Given the size of Greece's public debt in 2013 and its amortization profile (with reimbursements amounting to 13 billion euros in 2019 and up to 18 billion euros in 2039[2]), a new restructuring seems inevitable.

A public debt that is essentially held by euro zone countries

Since the onset of the Greek crisis in autumn 2009, the composition of the country's public debt has changed substantially. While in 2010, the debt was held by financial investors, the picture in early 2015 is very different [3]. After two assistance plans (in 2010 and 2012) and a restructuring of the public debt held by the private sector in March 2012 (Private Sector Involvement Plan), 75% of the public debt now consists of loans (**Table 1)**. Together the IMF, the ECB, the national central banks and the countries of the Eurozone hold 80% of Greece's public debt.

Table 1. Breakdown of Greece's public debt, by holder, september 2014

In billion euros

	September 2014	As % of total debt
Total	321,7	100
Debt securities	79,8	25
Commercial paper (Short-term)	13,4	4
Treasury bills (Long-term)	66,4	21
By ECB and national central banks	*25,0*	8
By private sector	*41,4*	13
Loans	241,8	75
IMF	32,1	10
Greek central bank + domestic loans	4,4	1
Euro zone countries	194,8	61
From 1st assistance plan (Greek Loan Facility)	*52,9*	*16*
From 2nd assistance plan (EFSF)	*141,9*	*44*
Other loans and repos	10,5	3

Sources: Debt Management Agency, IMF, ECFIN, author's calculations.

Conversely, since the March 2012 restructuring plan, Europe's banks have sharply reduced their exposure to Greece's public debt (**Table 2**). Moreover, their capital levels have risen since 2010, especially with the gradual implementation of the Basel 3 reform. The banks thus have a safety margin in the case of a partial default by Greece.

Table 2. Exposure of banks to Greek debt (public and total)

In billions of euros

	Total Greek debt (public + private)			Greek public debt		
	Q3 2009	Q1 2012	Q2 2014	Q4 2010	Q1 2012	Q2 2014
Total banks	430,5	105,6	73,8	62,9	9,0	3,5
European banks	389,2	99,1	47,8	60,2	8,3	2,2
France	*112,4*	*54,7*	*3,0*	*20,3*	*2,5*	*0,1*
Germany	*61,8*	*8,3*	*18,9*	*20,0*	*1,0*	*0,2*
United Kingdom	*17,9*	*11,1*	*18,1*	*4,6*	*0,3*	*0,8*
Non-European banks	NA	6,5	26,1	2,6	0,7	1,3
United States	*27,8*	*5,1*	*24,6*	*2,0*	*0,6*	*1,3*

Sources: BIS, ECB, author's calculations.

Since more than half of Greece's public debt is held by members of the euro zone, no renegotiations can take place without their involvement.

So what are the possibilities for restructuring the debt?

The European countries have already made several concessions

to help Greece service its debt:

– The maturity of the loans has been increased and the interest rate on loans granted by the EFSF has been reduced. For the first assistance program (bilateral loans), the initial maturity was 2026 (with a grace period until 2019) and the interest rate was indexed to the 3-month Euribor plus a risk premium of 300 basis points. In 2012, this risk premium was cut to 50 basis points and the maturity was extended by 15 years to 2041;

– Any profits made by the ECB and the national central banks on the bonds they hold were returned to Greece;

– Interest payments on the EFSF loans were deferred by 10 years.

Solutions like some used in the past could be implemented. The debt could be rescheduled. Indeed, the rate charged on the loans in the first assistance package (3-month Euribor + 50 basis points) is generally higher than the financing costs of the European countries, and could be lowered. And the term of the loans in the first and second assistance packages could be extended by another 10 years, until 2051. According to the Bruegel think-tank, these two measures combined would reduce Greece's total repayments by 31.7 billion euros.

These measures nevertheless seem limited for resolving the issue of Greek debt: they only postpone the problem. Other measures are needed to relieve Greece of its public debt burden. As the euro zone countries are the main ones exposed to Greece's debt, they have an interest in finding a compromise: if there is a unilateral default, it is taxpayers throughout Europe who will wind up paying.

As for the IMF, there's no point waiting for debt forgiveness. The institution is indeed the senior creditor in case of a country's default, and lender of last resort. Since its founding, it has never cancelled a debt. It is therefore with

the members of the euro zone, Greece's main creditors, that a partial default needs to be negotiated. On the one hand, Greece can threaten an uncoordinated unilateral default, causing losses for its creditors. But on the other, it has no interest in alienating euro zone members and the ECB, which have been its main supporters during the crisis. A sudden default would deprive it of access to market financing for many years; even if Greece has achieved a primary surplus, the situation is unstable and it still needs external financing, even if only to honour its repayments to the IMF. One solution would be for the euro zone countries to accept a discount on the face value of the government debt they hold, as was done with private investors in March 2012.

In conclusion, Greece is facing a series of challenges. In the short term, the priority is to find sources of financing to get through 2015. To do this, the country will have to deal with the Troika, in particular the ECB, whose action will be crucial. The Bank has warned Greece that if negotiations fail, it could cut off the country's access to liquidity. Furthermore, on 22 January 2015, the ECB must reach its long-awaited decision on quantitative easing; the issue is whether the ECB will accept the redemption of Greek government bonds. In the longer term, the issue of restructuring the debt will inevitably arise, regardless of who wins the polls. However, the restructuring is likely to be easier with public creditors than with the private banks, if, that is, Greece has in turn won the trust of its European partners.

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[1] See the results of the stress tests published by the ECB on 26 October 2014.

[2]See the Hellenic Republic Public Debt Bulletin, no. 75, September 2014, Table 6.

[3] For a comparison with the situation in June 2012, see Céline Antonin, “Retour à la drachme: un drame insurmontable?”, [Return to the drachma: an insurmountable drama?], *Note de l’OFCE* no. 20, June 2012.