

# Areva, Flamanville and Fessenheim: key players in France's nuclear turn

By [Sarah Guillou](#)

The recent [law on "the energy transition to green growth"](#), promulgated on 17 August 2015, plans for a fall in nuclear energy's share of electricity production from 75% to 50% by 2025. It also caps the power of the country's nuclear plants at 63.2 GW. This limit corresponds to current capacity and implies that any new reactor start-up (Flamanville, for example) must result in the closure of a reactor with equivalent power. The decision to postpone the expected closure of the Fessenheim plant comes under this and is now part of this energy equilibrium. The conditioning of the closure of Fessenheim is provoking discontent among all those who believed in the unconditional pledge of Francois Hollande during his presidential campaign.

This decision is coming in a new context for French nuclear power policy and in an international and technological situation that is leading the French state to abandon the country's "all nuclear" approach. Areva, Flamanville and Fessenheim are key players in this shift.

Act I began with the revelation of Areva's losses. In early 2015, the announcement of a loss of almost 5 billion euros for fiscal year 2014 relegated the company from first class status to a company in difficulty, alongside Alstom, whose energy branch is being sold to General Electric, with completion this autumn. The Areva group had a turnover of slightly more than 8 billion euros in 2014. The group's problems are due to the simultaneous emergence of difficulties in its environment, including market and regulatory trends, technological

constraints and changes in the competition (see [“Areva, vaincue à la croisée des risques” \[Areva: defeated at the crossroads of risk\], Note de l’OFCE, no. 52, September 2015](#)). With private and public governance having proved incapable of taking timely decisions to deal with these adverse developments, the moment for restructuring has come. Areva now needs 7 billion in financing for the 2015-2017 period (to cover losses and debt maturities, without including any provisions for the TVO site). The proposed agreement with EDF presented in late July concerns Areva NP.

Areva NP is already a joint venture of Areva and EDF that handles the construction of reactors and the assembly of fuel and services for the installed base; it accounts for half of Areva’s sales. In late July 2015, it was duly accepted that EDF would increase its share of Areva NP’s capital by injecting two billion euros, giving it between 52% and 75% of the capital, depending on the inputs of other investors, along with 400 million for the acquisition of other assets. It was also agreed that the additional costs related to the Finnish Olkiluoto OL3 reactor built by Areva would not be borne by EDF but by the State and Areva. There is still uncertainty about how to handle the risks related to the Flamanville reactor, and EDF is conditioning its commitments on lifting these risks.

Foreign capital could participate in replenishing the capital through the purchase of assets. The most likely candidates are Chinese firms, which are already partners of EDF (CNNC and CGNPC), and Mitsubishi, which has partnered with Areva (see above), alongside France’s Engie (GDF Suez). The French government is prepared to bail out the company for at most 2 billion euros.

The integrated model of Areva is therefore on the rocks. Less than 15 years after its birth, Areva’s industrial coherence is under question. The company has been forced to allow the entry of industry partners into its capital and into its vast range

of expertise. Its activity is now concentrated on the fuel cycle (the extraction, enrichment and reprocessing of uranium), with nearly one-third of its workload ensured by its client EDF and by maintenance and decommissioning.

The refocusing strategy, market trends and the preferences incorporated in France's energy policies are mutually consistent. The nuclear market will be centred on the need to maintain plants in operating condition and on decommissioning. Just under 500 reactors are listed worldwide, so there is a vast market for maintenance and decommissioning. This is in fact the area where Areva has won contracts in recent years.

In Act II, Flamanville and Fessenheim found themselves bound by the new energy transition law, illustrating both the technological difficulties involved as well as the budgetary constraints. The completion of the construction of the Flamanville plant is meeting significant technical hurdles from the Nuclear Safety Authority. Its opening is, for the moment, subject to strong conditions. At the same time, the postponement of its opening means that the expected output of electricity production will have to do without it. The closure of the Fessenheim plant, promised for 2016, must therefore be delayed so as to avoid a transition in terms of electrical power output that will have to be filled in one way or another.

Without the capacity in the short run to replace the missing nuclear KWh by KWh from renewable energy, the replacement will have to be done using coal plants – going against the current targets for reductions in CO2 emissions – or by importing electricity – which would hurt the trade balance and could push up electricity prices. Given the necessity of postponing the closure of Fessenheim, the government will not fail to seize the political opportunity of the shortfall between the announcement of the plant's closure and its actual implementation.

Add to these factors the potential compensation – estimated at 5 billion euros – that EDF will request for the early closure of Fessenheim, and it is quite logical that the government is procrastinating as much as possible before deciding on the closing date.

Even today we still do not know the extent to which the State will recapitalize Areva. The government has clearly indicated that it would minimize the amount as much as possible, but for the most part it seems ready to allow foreign players in. So, concomitantly, the law on the energy transition is requiring a decrease in the share of nuclear power and the State is announcing that it can no longer finance the sector in the way it used to. More generally, the globalization of the industry, the rising cost of technology and safety requirements as well as the shift in the preferences of the average voter towards less nuclear power are all combining to redefine the State's commitment to nuclear energy.

The State is thus being politically and economically compelled to withdraw from its "all-nuclear" approach and to accept the end of everything "made in France". The final decisions that will be taken on Areva's future and on the fate of the plants in Fessenheim (which will undoubtedly close in the short term) and Flamanville (whose opening is compromised but financially necessary) will therefore mark a change in the era of nuclear policy, even if the recent energy transition law is subsequently amended by a new party in power.

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# Climate justice – the “Open Sesame” of the COP 21 climate conference

By [Eloi Laurent](#)

Climate negotiations cannot be limited to technical discussions between experts about the reliability of scientific data: they need to take the form of an open political dialogue that is nourished by ethical reflection involving the citizens. What should be the focus of this dialogue? With COP 21 opening in two months in Paris, it is becoming increasingly clear that the key to a possible agreement is not economic efficiency, but social justice. The “green growth” that was a goal in the past century has little mobilizing power in a world plagued by injustice. It is much more important to highlight the potential that resolute action against climate change holds for equality at the national and global level.

Three issues indicate how social justice is at the heart of the climate negotiations. The first concerns the choice of the criteria for allocating the carbon budget between countries in order to mitigate climate change (the approximately 1200 billion tons of carbon that remains to be emitted over the next three to four decade so as to limit the rise of ground temperatures to around 2 degrees by the end of the 21st century). Various indicators can be used both to estimate the carbon budget and to distribute it equitably among countries; while these indicators need to be discussed, we cannot under any circumstances ignore this issue in Paris. It is demonstrable that [the application of hybrid but relatively simple criteria on climate justice](#) would lead to cutting global emissions almost in half over the next three decades, which would ensure meeting the goal of 2 degrees, and even

targeting the increased rise in temperatures to 1.5 degrees, thereby enhancing the fairness of this common rule with respect to the most vulnerable countries and social groups.

The second issue concerns adaptation to climate change, that is to say, the exposure and sensitivity to extreme weather events and rising global temperatures that is differentiated between countries and social groups. Here too it is important to select relevant indicators of climate vulnerability to fairly allocate the available funding (which should increase to \$100 billion per year by 2020). But it will be very difficult to mobilize the necessary sums without [shifting the climate negotiations from the current quantitative logic to a price logic.](#)

Finally, combatting inequality seems to be the most effective way to involve citizens in the climate dialogue. The fight against climate change must be understood not as a social threat or an opportunity for profit-making but as a lever for achieving equality: a chance to reduce disparities in human development between countries and within countries.

The case of China shows how constraints on cutting CO<sub>2</sub> emissions can turn into a tool for reducing inequality: the limitation on coal consumption simultaneously reduces the country's greenhouse gas emissions and the damage caused to the Chinese population's health by fine particles, which are distributed very unevenly around the territory and therefore within the population. The same applies to the much desired regulation of automobile traffic in France's urban areas, which represents both a gain for health and a reduction in emissions related to mobility. This dual climate-health dividend (reducing emissions to contain global warming has an indirect effect, i.e. improving health) must therefore be at the heart of the Paris negotiations. The fight against climate change offers a chance to reduce the inequalities that will be so devastating: by cross-checking the "social" map and the "climate" map, we can anticipate that the impact of heat waves

will be felt strongest in regions where both climatic exposure and the share of elderly people living alone are at high levels. The climate risk is a [socio-ecological risk](#). Inequality associated with this risk is [environmental inequality](#) [article in French]. The goal of COP 21 should not be to “save the planet” or even less to “save growth” but rather to “save our health” by protecting the most vulnerable from the worst of the climate crisis.

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# **Financialisation and financial crisis: vulnerability and traumatic shock**

By Jérôme Creel, Paul Hubert, Fabien Labondance

Since the mini-crash that took place in the Shanghai stock market in August, financial instability has resurfaced in the markets and the media and, once again, the link with financialisation has been evoked. The Chinese crisis resulted from a combination of real estate and stock market bubbles that were fed by the abundant savings of a middle class in search of high-yield investments. It feels like we've gone back almost ten years when what is considered the excessive financialisation of the US economy – with abundant savings from the emerging countries enabling the build-up of widespread US consumer debt – is treated as the cause of the financial instability and crisis that was triggered in the summer of 2007.

Is there really a link between, on the one side, increasing indebtedness and the great variety of financial investments, and on the other, volatile stock prices and a deterioration in the quality of bank loans? And if there is, what is the direction of the dynamics: from financialisation to financial instability, from financial instability to financialisation, or both at once? A rise in indebtedness could well lead to increasingly risky lending to agents who wind not being able to repay them, which would then lead to a financial crisis: this is one possible case. The occurrence of a crisis would change the behaviour of households and firms, causing them to reduce debt: this is the second case, in which financial instability reduces the financialisation of the economy. Depending on which is the case, the public policies needed differ. In the first, we need to monitor the degree of the economy's financialisation and target, for example, a maximum ratio of bank credit to GDP in order to prevent the rise and bursting of speculative bubbles. In the second case, there are two possibilities: to treat the causes, and thus to monitor the quality of loans to households and business so as to ensure the proper allocation of capital in the economy; or to treat the consequences by supporting productive investment to annihilate any rationing of credit.

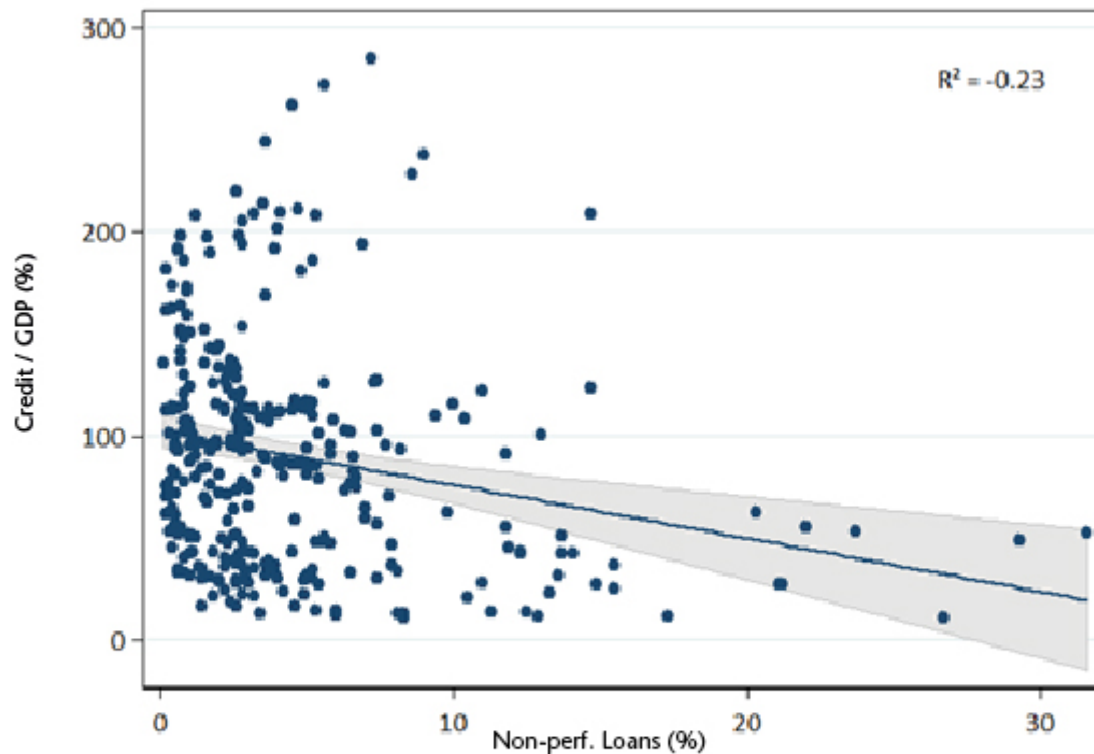
In the course of the debate on the links between financialisation and financial instability, and on the consequences to be drawn in terms of public policy, the European situation is interesting for two reasons: the European Union has set up a system for monitoring external imbalances, including financial ones, from 2011, and a banking union since 2014. In a recent [working paper](#), we look at this debate for several groups of countries in the European Union over the period 1998-2012.

At first glance, the relationship between these two concepts is not easy to demonstrate, as can be seen in the graph below. It shows a scatter plot that for each year and for each



European country gives the levels of financialisation (approximated here by the share of credits / GDP) and of financial instability (approximated here by non-performing loans). The correlation between these variables is -0.23.

**Figure. Financialisation and financial instability**



Note: Non-performing loans, or bad debt, expressed as a percentage of total loans granted by banks.  
Credit/GDP: total amount of bank credit expressed as a percentage of GDP.  
Source : Creel et al. (2015) based on GFDD databases.

We test the two typical cases discussed above. We call the first case the vulnerability effect. As financialisation develops, it engenders a sort of euphoria that leads to granting loans that are increasingly risky, which fosters financial instability. This hypothesis derives from the work of Minsky (1995) [1]. We simultaneously test the potentially negative relationship between financial instability and financialisation, which we call the trauma effect. The very occurrence of financial instability as well as its impact encourages economic agents to take less risk and to shed debt. Our estimates show that the link between financial instability and financialisation is not uni-directional. Contrary to what

is suggested by the simple correlation coefficient, the sign of the relationship is not the same when looking at the effect of one variable on the other, and vice versa. Both the vulnerability and the trauma effect have been at work in the European countries. A macro-prudential policy intended to monitor the policy on granting bank loans, in terms of their volume and quality, therefore does indeed seem necessary in Europe.

We also tested the possibility that these effects are non-linear, that is to say, that they depend on reference values. The vulnerability hypothesis depends both on the level of financialisation (the higher it is, the stronger the relationship) and on time. This last point shows us that the positive relationship between financialisation and financial instability shows up at the moment of crisis for countries that are already heavily financialised. Finally, in the countries on the EU periphery [\[21\]](#), long-term interest rates and inflation rates greatly influence the financial instability variable. Consequently, it seems that for these countries there is a need for strong coordination between banking supervision and macroeconomic surveillance.

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[\[1\]](#) Minsky H. P. (1995), "Sources of Financial Fragility: Financial Factors in the Economics of Capitalism", paper prepared for the conference, *Coping with Financial Fragility: A Global Perspective*, 7-9 September 1994, Maastricht, available at Hyman P. Minsky Archive. Paper 69.

[\[2\]](#) This group consists of Spain, Ireland, Italy, Greece, Portugal and the countries from the Eastern enlargements in 2004 and 2007. The establishment of this group is explained in the working paper.

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# The upward drift in senior unemployment continued in August

## Analysis and Forecasting Department (France team)

The figures for the month of August 2015 published by France's Pôle Emploi job centre show a significant increase in the number of people registered as Category A (+20,000), i.e. an additional 156,000 job seekers over one year, [following two months of relative stability](#). While this figure is undoubtedly disappointing, the uncertainty surrounding monthly fluctuations in enrolment at the job centre should not be forgotten. Despite the downturn in the numbers registered in categories B and C in the last month (-11,600), the number of job seekers who have carried out an active job search has risen by nearly 332,000 since August 2014.

This figure nuances the publication of the unemployment rate as defined by the International Labour Office (ILO), which gives a less negative image of the French labour market. This statistic points to a slight fall in the unemployment rate in the first six months (-0.1 point), [largely due to shrinkage of the labor force](#) (-0.2 point).

Beyond the total figure, the data published for August confirms the divergences observed between different age groups. While up to September 2010 the number of people aged 50 or over registered in Category A at the job centre was lower than for the under 25 age group, there are now 330,000 more unemployed seniors than unemployed youth (graph). The increase in this gap since 2010 is due to several factors. The

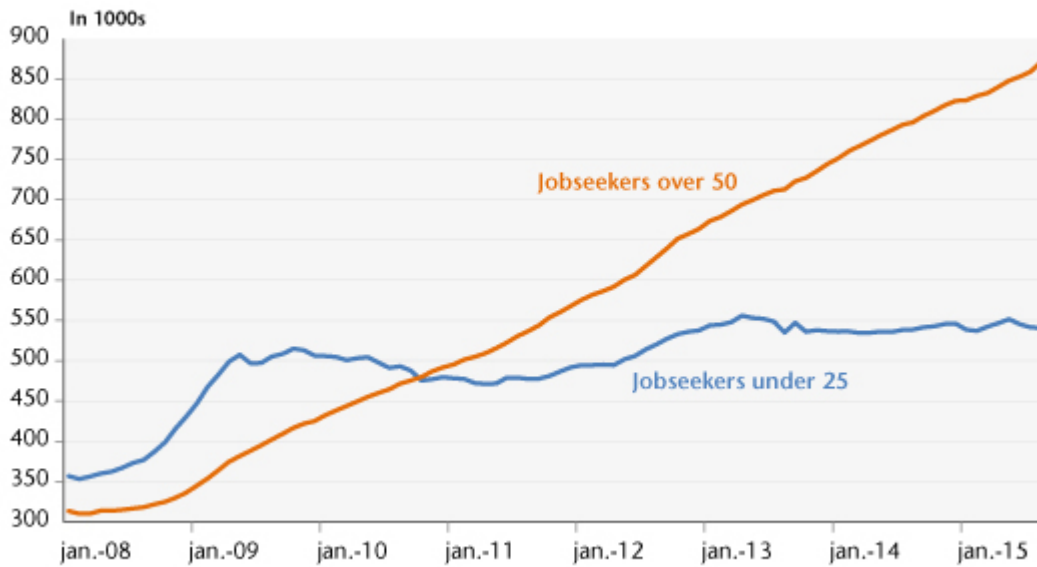
implementation of a series of pension reforms (2003, 2010), coupled with the elimination of exemptions for seniors on job-seeking, has led to a longer duration of employment and a later statutory retirement age. In a context of weak growth, the rise in the rate of senior employment has been insufficient to absorb the growth in the workforce for that age group, resulting in a higher unemployment rate for the over 50s.

The weaker increase in the number of unemployed youth is the result of two main factors. First, the employment policies implemented since 2013 have targeted youth in particular, including the *emplois d'avenir* programme. Second, the weak job creation in the market sector has mainly taken the form of temporary jobs (CDD fixed-term and temporary contracts), an area in which young people are heavily represented ([34.2% of young people in employment are on CDD contracts or temping, versus 8.4% for other age groups](#)).

Finally, while seniors are unemployed less often than young people (4.6% of those aged 50-64 against 8.6% for 15-24-year-olds), they are more exposed to long-term unemployment. 62% of the seniors registered at Pole Emploi have been jobless for more than a year, against 21% of young people.

All this indicates that only a macroeconomic policy aimed at increasing the overall level of employment is capable of simultaneously dealing with unemployment among both young people and seniors. Otherwise, in a situation where employment is lacking overall, policies that are aimed at certain categories, even if effective for that specific target, may lead to adverse effects on other categories.

Figure. Jobseekers in Category A according to age



Source: Pôle Emploi.

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# The redistributive effects of the ECB's QE programme

By Christophe Blot, Jérôme Creel, Paul Hubert, Fabien Labondance and Xavier Ragot

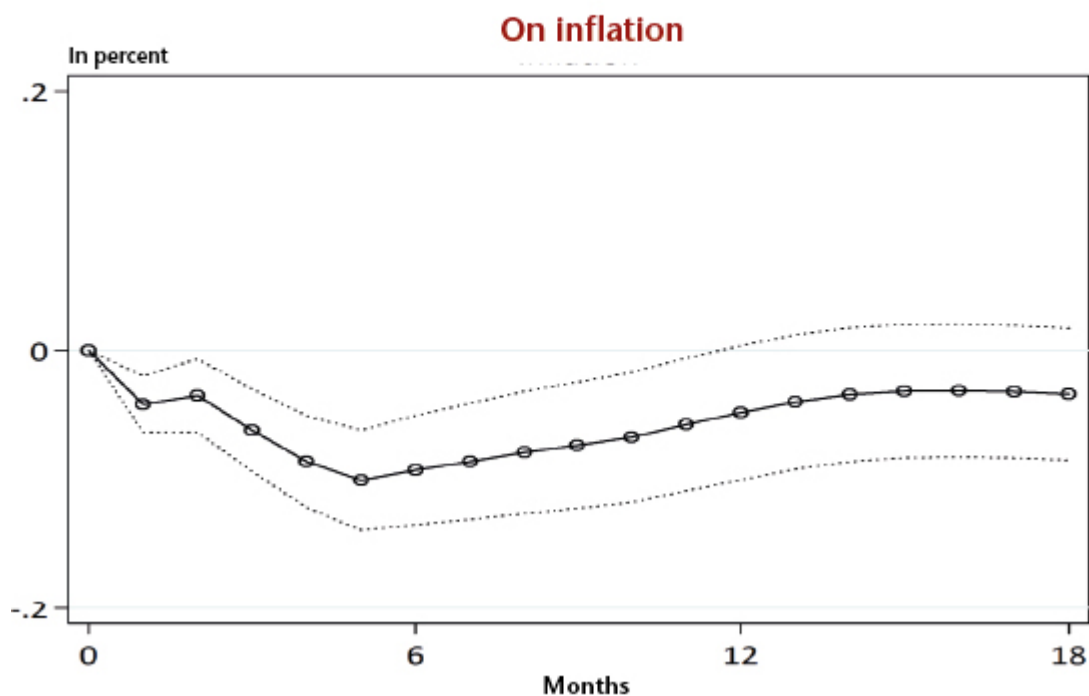
Rising inequality in income and wealth has become a key issue in discussions of economic policy, and the topic has inserted itself into evaluations of the impact of monetary policy in the US and Japan, the precursors of today's massive quantitative easing programmes (QE). The question is thus posed as to whether the ECB's QE policy has had or will have redistributive effects.

In a paper prepared for the European Parliament, [Blot et al. \(2015\)](#) point out that the empirical literature gives rise to two contradictory conclusions. In the US, the Fed's base rate

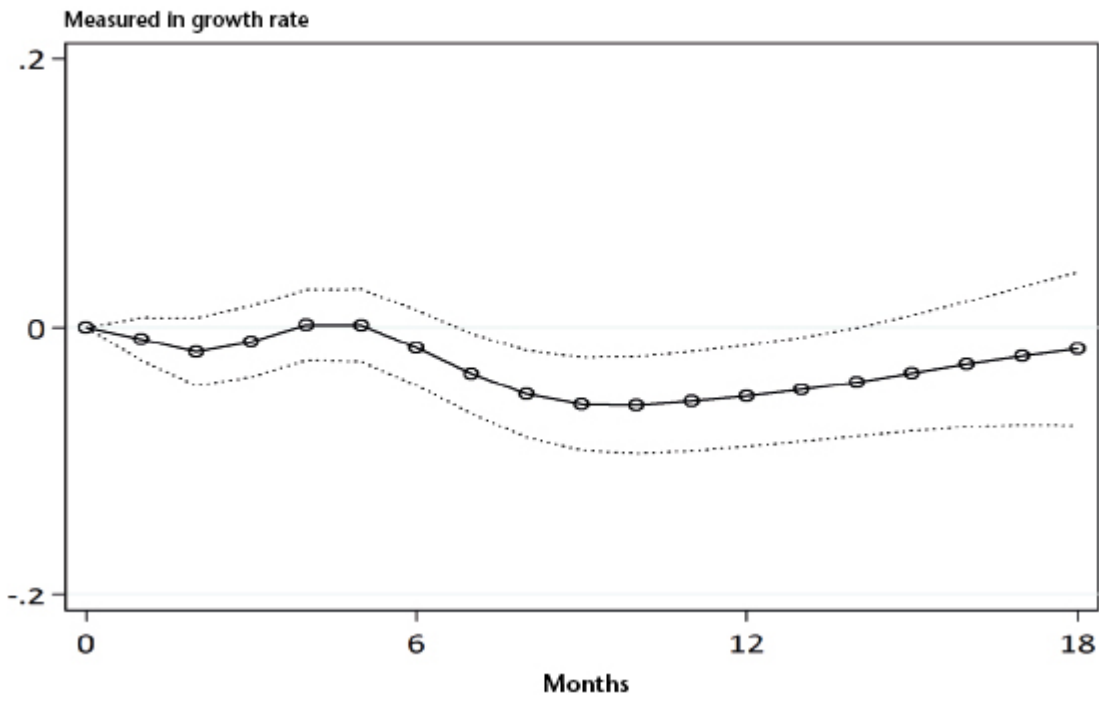
cuts tend to reduce inequality. Conversely, in Japan an expansionary QE type policy tends to increase inequality. So what's the situation in Europe?

Based on macroeconomic data aggregated for the euro zone as a whole, Blot et al. (2015) show that while European monetary policy, conventional and unconventional, have indeed had an impact on the unemployment rate, the number of hours worked and the rate of inflation (see graphs), this was limited. This result suggests that the ECB's expansionary monetary policy has tended to reduce inequality, but not by much. So when the ECB finally decides to wind up its expansionary policy, we can expect a slight increase in inequalities to follow. Because of this effect, though small, Blot et al. (2015) suggest that the ECB should be held accountable not just for price stability or economic growth, but also for the impact of its policies in terms of inequality and the mechanisms needed to take this into account.

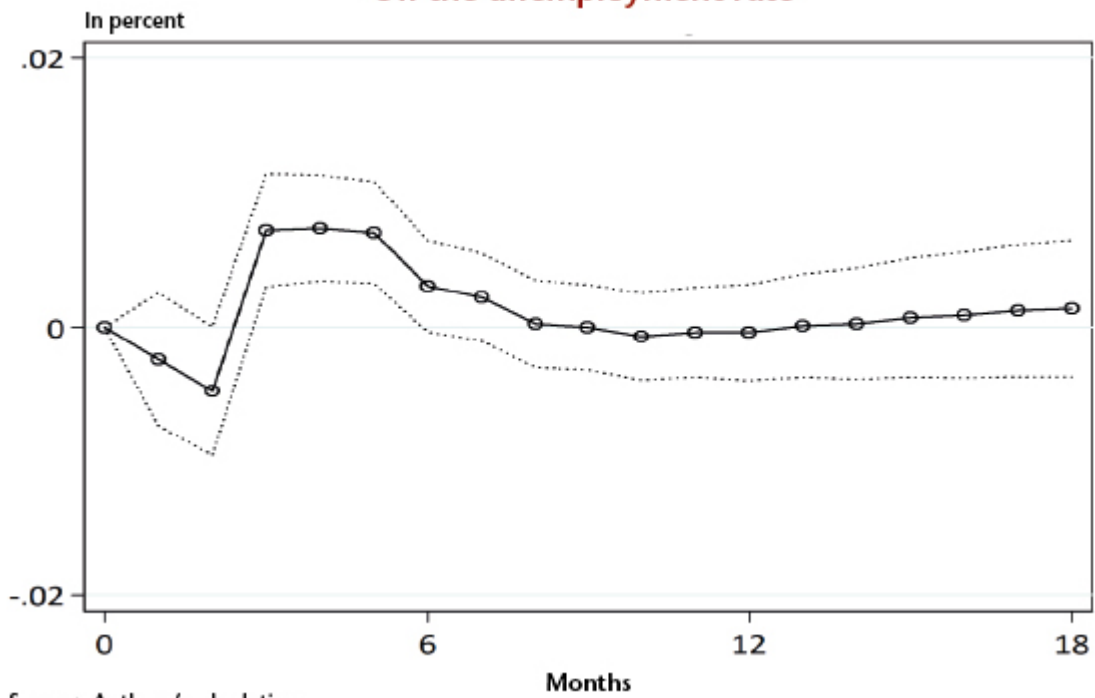
**Figures. The impact of a restrictive monetary policy shock (0.2 percentage point hike in the implicit interest rate) in the euro zone...**



## On hours worked



## On the unemployment rate



Source: Authors' calculations.

# Wage moderation in Germany – at the origin of France's economic difficulties

*By Xavier Ragot, President of the OFCE, CNRS-PSE, together with Mathilde Le Moigne, ENS*

If the future of the euro zone does indeed depend on political cooperation between France and Germany, then economic divergences between the two countries should be a cause for concern. These divergences need to be analysed, with particular attention to three specific areas: the unemployment rate, the trade balance and the public debt. Germany's unemployment rate is falling steadily; in June it was under the 5% mark, which represents almost full employment, whereas the French rate is over 10%. Germany's low unemployment rate does not however reflect strong consumption by German households, but rather the country's export capacity. While France continues to run a negative trade balance (importing more than it exports), Germany is now the world's leading exporter, ahead of China, with a trade surplus that will run close to 8% in 2015. As for the public deficit, it will be around 3.8% in France in 2015, while Germany is now generating a surplus. This has impressive consequences for the way the public debt is changing in the two countries. In 2010 they were similar, at around 80% of GDP, but in 2014 Germany's public debt fell below 75%, and is continuing to decline, while France's debt has continued to grow, and has now hit 97%. This kind of gap is unprecedented in recent times, and is fraught with mounting tension over the conduct of monetary policy.

This triple divergence is inevitably leading to differences in the political response, with respect to the population's ability to take in migrants and to the understanding of



countries facing economic difficulties, such as Greece, but also with respect to the ability to cope with future economic crises. Economic divergence will become political divergence. The point is not to idealize the German situation, which is characterized by a large number of workers who have failed to benefit from the fruits of growth, as is shown in a recent study by France Stratégie, as well as by a rapid decline in population. This should not stop us from taking a hard look at the economic gap arising between the two countries.

### ***What are the reasons for Germany's commercial success?***

Many factors have been advanced to explain the divergence between the two neighbours: for some, it's a matter of the German strategy – outsourcing value chains, aggressive wage moderation, fostering competition between companies – and for others, French weaknesses: poor geographical and / or sectoral specialization, insufficient public support for exporters, and a lack of competition in certain sectors. Our [recent study](#) emphasizes the delayed impact of German wage moderation and suggests that this could explain almost half of the Franco-German divergence. To understand the mechanisms involved, it is necessary to distinguish between the sectors exposed to international competition and the sectors that are sheltered. The exposed sectors include industry, but also agriculture, including animal husbandry, which is currently in the news, and some services that can be traded. The sheltered sector includes transportation, real estate, retailing and a large part of personal services.

While unit labour costs in France have risen regularly and at similar levels in the two above-mentioned sectors, they have remained extraordinarily stable in Germany for nearly ten years. This wage moderation is the result of both poor management of German reunification, which tipped the balance of power during wage negotiations in favour of employers, and, to a much less extent, the introduction of the Hartz reforms in 2003-2005, which aimed to create low-paid work in the less

competitive sectors (particularly the sheltered sector). The cost of German reunification is estimated at 900 billion euros, in terms of transfers from former West Germany, or slightly less than three times the Greek debt. Faced with this kind of challenge, the wage moderation initiated in 1993 represented a strategy for re-convergence between the two parts of Germany. In 2012, German nominal wages were 20% lower than French wages in the exposed (tradable) sector and 30% lower in the sheltered sector, compared to the 1993 levels. A look at French and German margin levels shows that in the exposed sector, French exporters have made significant efforts by reducing their margins in order to maintain their price competitiveness. In the sheltered sector, French margins are on average 6% higher than German margins. The bulk of France's loss of price competitiveness is therefore a loss of cost competitiveness.

How much have these differences contributed to unemployment and the trade balance in the two countries? Our quantitative analysis shows that if German wage restraint had not taken place between 1993 and 2012, today's 8% gap in the trade balances would instead be 4.7% (2.2% of this being due solely to German wage moderation in the sheltered sector). Thus, Germany's wage moderation policy explains almost 40% of the difference in trade performance between the two countries. We also found that this wage moderation accounts for more than 2 points of France's unemployment.

### ***The non-price competitiveness gap***

This leaves nearly 60% of the difference in the trade balances still needing to be explained. Our study suggests that this difference is due to the quality of the goods produced, so-called non-price competitiveness. Between 1993 and 2012, the German quality-price ratio increased by around 19% compared with that of France, which has therefore more than offset the rise in German export prices relative to French prices. There is clearly a "quality" effect in this non-price

competitiveness: Germany produces “high end”, more innovative goods than France does in the same sectors. It is also possible to see an impact due to the outsourcing of some German production (nearly 52% of production volume in 2012) to countries where costs are lower: Germany today is a centre for design and assembly, which saves money on its intermediary costs, enabling it to invest more in brand strategies and efforts to move upscale.

This effect is nevertheless probably endogenous, that is to say, it flows in part from Germany’s advantage in cost competitiveness. Low labour costs have enabled German exporters to maintain their margins in the face of external competition. The funds generated have led to investments which French companies have probably had to forego in order to maintain their price-competitiveness, thus losing the opportunity to catch up with German products in terms of non-price competitiveness over the longer term.

### ***A positive way out and up***

The root cause of the gap in economic performance between Germany and France lies in the nominal divergence observed between the two countries since the early 1990s. One way to reduce these differences would be to promote convergence in wages in Europe and in its labour markets more generally. Germany would need to allow wage inflation that was higher than in the periphery countries, thereby dealing with the increase in social inequalities in Germany, while France must not fall into the trap of competitive deflation, which would destroy its domestic demand, while keeping wage movements under control. In this respect, the report of the five Presidents presented by the European Commission on 22 June 2015 proposes the establishment of national competitiveness authorities, which hopefully would allow greater cooperation on social welfare and employment.

The difference in wages between France and Germany has

profound implications in terms of economic thought. The increased trade integration that followed the introduction of the euro led not to a convergence but to a divergence in labour markets. It is then up to each State to once again bring about convergence of the economies while supporting economic activity. This State intervention in the economy is more complex than the simple Keynesian framework for the management of aggregate demand, and now involves the convergence of labour markets. Heretofore, Europe's response has been systematic cuts in labour costs, while what is really needed is to increase wages in surplus countries, such as Germany, for example by using the minimum wage as a tool. All this, it is true, is economics. The politics begins when we realize that only long-term cooperation can bring about a convergence in national interests.

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## **Unemployment: a fall by temping**

by Analysis and Forecasting Department (France team)

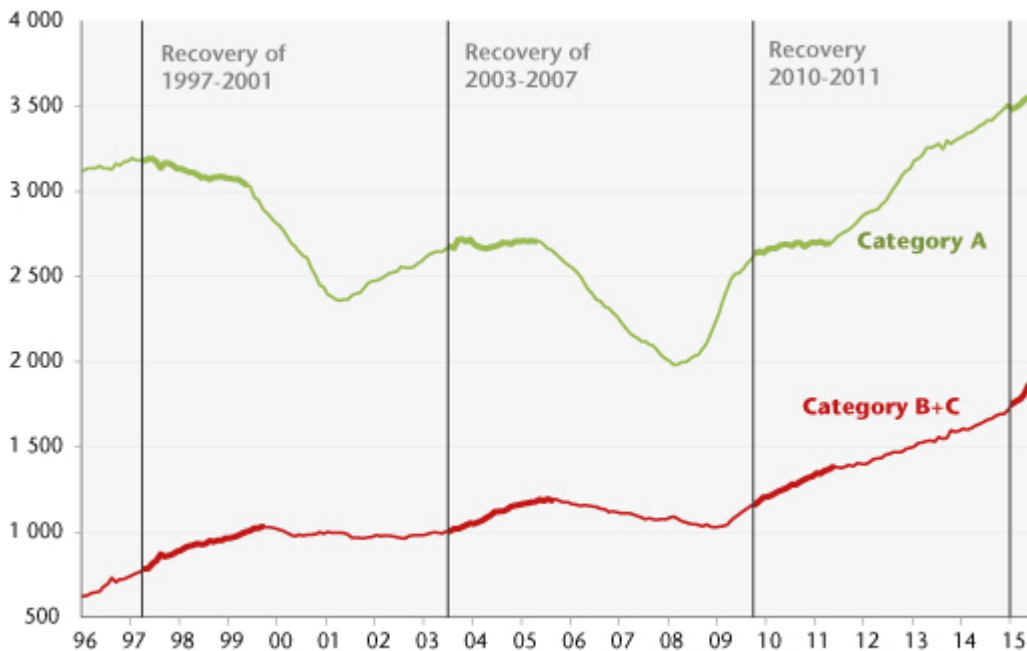
The unemployment figures for the month of July 2015 indicate a slight fall (-1900) in the number of people registering in category A. There is still too much uncertainty about monthly changes in enrolment at France's Pôle Emploi job centre to conclude that there has been a lasting improvement in the state of the labour market. However, the increase observed since January 2015 (+50,900 registered in category A) is smaller in scale than the figures recorded for this same period during the past three years (+128,500 on average for

the first seven months of the previous three years). It is comparable to the situation in 2010-2011 (+44,300 on average in the first seven months of both years), which were years of renewed growth.

Seen in the context of the first buds of recovery, this trend in unemployment is not surprising. First, the pick-up in GDP growth observed in the first six months (+0.7% according to [preliminary accounts published by the INSEE](#)) is expected to gain pace in the coming quarters. For now, [this recovery has meant a rise in salaried employment of +26,600 in the competitive sector during the first six months of 2015](#). This has been sufficient to limit the increase in unemployment, without however reversing it, as labour force numbers have increased by about 75,000 during the half year.

Furthermore, the increase in registrations in categories B and C [\[1\]](#) has been more marked than for category A (+145,600 since the year's start). This is due partly to some switching by the jobless in category A into these other categories, which reflects an increase in precarious employment that is consistent with the increase in temporary jobs in the first half year (+11,600): historically, an improvement in the labour market starts with an increase in precarious jobs (fixed term, temporary). This is also coinciding with an increase in job offers collected by Pôle Emploi, as well as with exits from the job centre due to a return to work, a figure that reflects a return to levels comparable to those observed in 2010-2011.

Figure. Enrolment in the Pôle Emploi job centre by category



Source : Pôle Emploi.

Finally, the trends differ by age group: the number of people under age 25 registered in category A is 4,600 lower than its level at year-end 2014. In fact, the young, who are over-represented in so-called temporary jobs ([34.2% of young people in work are on fixed-term CDD contracts or are temping, compared with 8.4% of those in other age groups](#)), benefit from the creation of this type of job, and from the increase in subsidized jobs that are targeted specifically at their age group. Conversely, the enrolment in category A of people aged 50 and over is rising steadily (+36,100 since the year started). 62% of those aged 50 and older have been enrolled in the job centre for over a year, versus an average of 39% for other age groups.

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[1] These categories group people who have worked on reduced hours during the month, but are still registered at Pôle emploi.

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# Greece: When history repeats itself

By [Jacques Le Cacheux](#)

The duration of the Greek crisis and the harshness of the series of austerity plans that have been imposed on it to straighten out its public finances and put it in a position to meet its obligations to its creditors have upset European public opinion and attracted great comment. The hard-fought agreement reached on Monday 13 July at the summit of the euro zone heads of state and government, along with the demands made prior to the Greek referendum on 5 July, which were rejected by a majority of voters, contain conditions that are so unusual and so contrary to State sovereignty as we are used to conceiving of it that they shocked many of Europe's citizens and strengthened the arguments of eurosceptics, who see all this as proof that European governance is being exercised contrary to democracy.

By requiring that the creditors be consulted on any bill affecting the management of the public finances and by requiring that the privatizations, with their lengthy list dictated by the creditors, be managed by a fund that is independent of the Greek government, the euro zone's leaders have in reality put Greece's public finances under supervision. Furthermore, the measures contained in the new austerity plan are likely to further depress the already depressed domestic demand, exacerbating the recession that has racked the Greek economy in 2015, following a brief slight upturn in 2014.

**Impoverishment without adjustment**

The Greek crisis, which in 2010 triggered the sovereign debt crisis in the euro zone, has seen prolonged agony punctuated by European psycho dramas that always conclude in extremis by an agreement that is supposed to save Greece and the euro zone. From the beginning, it was clear that a method based on the administration of massive doses of austerity without any real support for the modernization of the Greek economy was doomed to failure [\[1\]](#), for reasons that are now well understood [\[2\]](#) but at the time were almost universally ignored by officialdom, whether from European governments, the European Commission or the IMF, the main guarantor and source of inspiration for the successive adjustment plans.

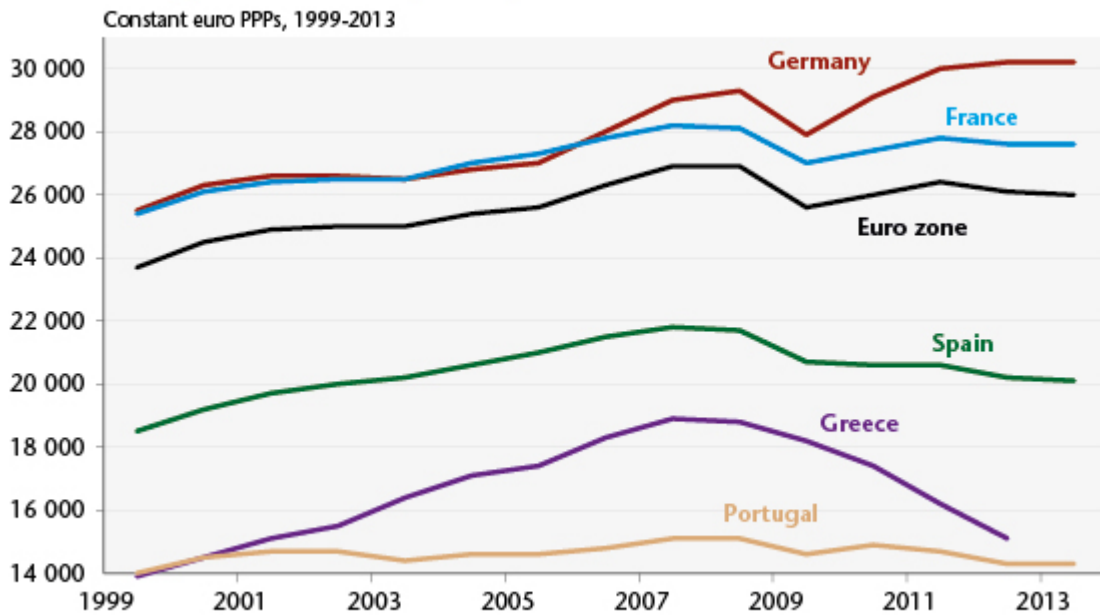
The results, which up to now have been catastrophic, are well known: despite the lengthy austerity cure, consisting of tax hikes, public spending cuts, lower wages and pensions, etc., the Greek economy, far from recovering, is now in a worse state, as is the sustainability of the country's public finances. Despite the agreement in 2012 of Europe's governments on a partial default, which reduced the debt to private creditors – relief denied by those same governments two years earlier – Greece's public debt now represents a larger percentage of GDP (almost 180%) than at the beginning of the crisis, and new relief – this time probably by rescheduling – seems unavoidable. The third bailout package – roughly 85 billion euros, on the heels of approximately 250 billion over the past five years – will be negotiated over the coming weeks and will be in large part devoted just to meeting debt repayments.

Meanwhile, the average living standard of Greeks has literally collapsed; the difference with the euro zone average, which had tended to decline during the decade before the crisis, has now widened dramatically (Figure 1): the country's GDP per capita is now a little less than half that in Germany. And GDP per capita still only poorly reflects the reality in an economy where inequality has increased and spending on social



protection has been drastically reduced.

**Figure 1. Real GDP per capita in several euro zone countries**

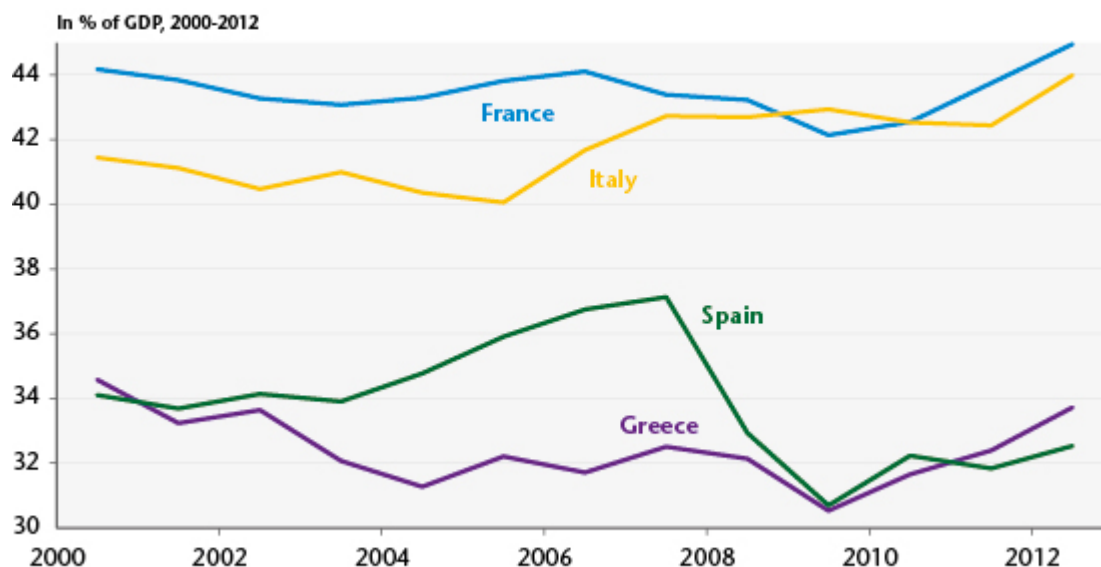


Source : Eurostat.

The new austerity plan is similar to the previous ones: it combines tax hikes – in particular on VAT, with the normal rate of 23% being extended to the Islands and many sectors, including tourism, that were previously subject to the intermediate rate of 13% – with reduced public spending, and will result in budget savings of about 6.5 billion euros over a full year, which will depress domestic demand and exacerbate the current recession.

The previous adjustment plans also featured “structural” reforms, such as lowering the minimum wage and pensions, deregulation of the labour market, etc. But it is clear that the fiscal component of these plans did not have a very visible impact on government revenue: after having declined significantly until 2009, the Greek tax burden – measured by the ratio of total tax revenue to GDP – has definitely increased, but not much more than in France (Figure 2). This does not mean, of course, that an even stronger dose of the same medicine will lead to better healing.

**Figure 2. Level of overall fiscal pressure  
in several euro zone countries**



Source : Eurostat.

### **Does history shed light on the future?**

The ills afflicting the Greek economy are well known: weak industrial and export sectors – apart from tourism, which could undoubtedly do better, but performs honourably – numerous regulated sectors and rentier situations, overstuffed and inefficient administration and tax services, burdensome military expenditure, etc.

None of this is new, and no doubt it was the responsibility of the European authorities to sound the alarm sooner and help Greece to renovate, as was done for the Central and Eastern Europe countries in the early 2000s in the years before they joined the European Union. Will the way it has been decided to do this now, through a forced march with the Greek government under virtual guardianship, be more effective?

If we rely simply on history, the temptation is to say yes. There are many similarities between the situation today and a Greek default back in 1893. At that time Greece was a relatively new state, having won its independence from the Ottoman Empire in 1830 following a long struggle supported by the European powers (England and France), which put the

country under a Bavarian king. Greece was significantly poorer than the countries of Western Europe: despite an effort at modernization undertaken after independence that was led by the Bavarian officials assembled around the Greek King Otto, in 1890 the country's GDP per capita was, according to data assembled by Angus Maddison[\[3\]](#), about 50% of the level of France, and a little less than one-third that of the UK. The analysis of Greece at that time was little better than that today:

“ ... Greece has been characterized throughout the 19<sup>th</sup> century by structurally weak finances, which has led it to default repeatedly on its public debt. According to the *Statesman's Yearbook*, in addition to significant military spending, Greece faces high expenditures on a disproportionately large number of officials for a small undeveloped state. Moreover, since part of Greece's debt is guaranteed by France and Great Britain, Greece could suspend debt service without the creditors having to suffer the consequences. The French and British budgets would be compelled to pay the coupons.

“By 1890, however, the situation had become critical. At the end of 1892, the Greek Government could continue paying interest only by resorting to new borrowing. In 1893, it obtained parliamentary approval for negotiating a rescheduling with its international creditors (British, German, French). Discussions were drawn out until 1898, with no real solution. It was Greece's defeat in the country's war with Turkey that served as a catalyst for resolving the public finances. The foreign powers intervened, including with support for raising the funds claimed by Turkey for the evacuation of Thessaly, and Greece's finances were put under supervision. A private company under international control was commissioned to collect taxes and to settle Greek spending based on a seniority rule designed to ensure the payment of a minimal interest. Fiscal surpluses were then allocated based on 60% to the creditors and 40% for the government.”[\[4\]](#)

Between 1890 and 1900, Greek per capita income rose by 15% and went on to increase by 18% over the next decade; in 1913, it came to 46% of French per capita income and 30% of the British level, which was then at the height of its prosperity. So this was a success.

Of course, the context was very different then, and the conditions that favoured the guardianship and the recovery are not the same as today: there was no real democratic government in Greece; there was a monetary regime (the gold standard) in which suspensions of convertibility – the equivalent of a “temporary Grexit” – were relatively common and clearly perceived by creditors as temporary; and in particular there was a context of strong economic growth throughout Western Europe – what the French called the “Belle Epoque” – thanks to the second industrial revolution. One cannot help thinking, nevertheless, that the conditions dictated to Greece back then inspired the current decisions of Europe’s officials[5].

Will the new plan finally yield the desired results? Perhaps, if other conditions are met: substantial relief of the Greek public debt, as the IMF is now demanding, and financial support for the modernization of the Greek economy. A Marshall Plan for Greece, a “green new deal”? All this can succeed only if the rest of the euro zone is also experiencing sustained growth.

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[1] See Eloi Laurent and Jacques Le Cacheux, “Zone euro: *no future?*”, *Lettre de l’OFCE*, no. 320, 14 June 2010, <http://www.ofce.sciences-po.fr/pdf/lettres/320.pdf> .

[2] See in particular the work of the OFCE on the recessionary effects of austerity policies: <http://www.ofce.sciences-po.fr/pdf/revue/si2014/si2014.pdf> . Recall that the IMF itself has acknowledged that the

adjustment plans imposed on the European economies experiencing public debt crises were excessive and poorly designed, and especially those imposed on Greece. This *mea culpa* has obviously left Europe's main leaders unmoved, and more than ever inclined to persevere in their error: *Errare humanum est, perseverare diabolicum!*

[3] See the data on the Maddison Project site: <http://www.ggdcc.net/maddison/maddison-project/home.htm> .

[4] Excerpt from the article by Marc Flandreau and Jacques Le Cacheux, "La convergence est-elle nécessaire à la création d'une zone monétaire ? Réflexions sur l'étalon-or 1880-1914" [Is convergence necessary for the creation of a monetary zone? Reflections on the gold standard 1880-1914], *Revue de l'OFCE*, no. 58, July 1996, <http://www.ofce.sciences-po.fr/pdf/revue/1-58.pdf> .

[5] An additional clue: the German Finance Minister Wolfgang Schäuble insisted that Greece temporarily suspend its participation in the euro zone; in the 1890s, it had had to suspend the convertibility into gold of its currency and conducted several devaluations.

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## Argentina's experience of debt crisis

By [Augusto Hasman](#) and [Maurizio Iacopetta](#)

There is still a lot of uncertainty around the possible paths that Greece can follow in the near future. One possible path, which may be still averted by the current negotiation, is that Greece will default on the upcoming debt obligations (see

graphics [here](#) for a detailed list of the upcoming Greek debt deadlines), thus spiraling into a currency and credit crisis and possibly resulting in a “Grexit”[\[1\]](#).

The Greek debt crisis shares some similarity with the Latin American debt crisis of the 1990s and early 2000s. In both Greece and Latin America, debts are mostly bond debts or debts to international institutions. Similarly to Greece, many Latin American countries had become more and more open in the decades before the crisis. The series of financial crises started with Mexico’s December 1994 collapse. It was followed by Argentina’s \$95 billion default (the largest in history at that time, although later on Argentina resumed some of the payments), Brazil’s financial crisis (1998-2002) and Uruguay’s default (2002).

Argentina is viewed as benchmark for getting insights on the possible macroeconomic consequences of a Grexit, partly because it abandoned the peg with the dollar as a result of its mounting fiscal crisis. Nevertheless, some have pointed out at marked differences between the two economies, in terms of industry structure as well as trade composition (see [here](#) for instance).

Here, we review the different steps followed by Argentina during the crisis and propose some statistics related to developments of key economic indicators in Argentina before and after the crisis. For comparison purposes, we also provide key figures of the Greek’s economy.

### **Argentina and Greece at time of considerable stress**

Greece entered the European and Monetary Union in 2001, meaning an irrevocably fixed exchange rate regime and the adoption of the Euro as legal tender. By *early 2010*, Greece risked defaulting on its public debt and had to call for a financial rescue to international institutions. On the other hand, at time of the crisis, Argentina had its currency, the

peso, 'immutably' fixed to the US dollar on a one-to-one basis. As today's Greek situation, when Argentina defaulted in late 2001, the country's economy and government were both experiencing considerable stress. 2001 was the third consecutive year of serious recession for Argentina, foreign direct investment had virtually stopped, and inflation, interest rates and the budget deficit all were soaring. The IMF had provided loans to keep the peso stable, on the condition that the government would adopt fiscal and monetary discipline. Argentina's economic problems became a serious crisis in December 2001, when the IMF denounced the government's inability to put its financial house in order and suspended its loans. This development was followed almost immediately by a banking crisis and violent public protests that produced a rapid succession of six presidents in two weeks. Figure (1) depicts the behavior of Argentinian key economic indicators before and after the 2001 devaluation. Figure (2) shows the Greek's indicators since 1998 [\[2\]](#). A quick inspection of the two figures reveals that:

-The magnitude of the decline of Greece's GDP during the crisis, counting from its highest point in 2008 is roughly the same as that observed in Argentina during a recessionary period before the devaluation: 25%.

- The rise in the unemployment rate has been much more severe in Greece than in Argentina. In Argentina, unemployment, rose from 12.4% in 1998 to 18.3% in 2001 whereas in Greece it went up from less than 10% in 2008 to over 25% to this day. Both in Argentina and in Greece the inflation had been relatively low before the debt crisis; in fact in Greece it has even been negative in recent years.

### **The recovery**

What is somewhat surprising is what happened in Argentina after the crisis.



First, after a short period of turbulence, the Gross Domestic Product, in constant dollars, began to rise at an astonishing pace of almost 10 percent per year, until the 2007-08 financial crisis. Second, the unemployment rate declined from 18 percent to about 7 percent. Third, the poverty rate went down even below the level observed in the heyday of the pegged exchange rate. But financial indices deteriorated. First the difficulties in accessing external credits and the loss of credibility of the government pushed up the bond spreads from 4000 basis points before the crisis to ten times as much after the crisis. Second, the inflation rate seems to have stabilized at a double digit figure. According to some scholars (see for instance [Alberto Cavallo](#) "Online and official price indexes: Measuring Argentina's inflation" Journal of Monetary Economics, 2012) there has been a systematic attempt by government authorities to greatly underestimate or underreport the inflation rate. Therefore, the GDP gain may not be as high as the one showed in Figure 1. Although the Argentinian economy has gone into a sustained period of growth, it would be unwarranted to make an automatic link between the renaissance of the Argentinian economy and the dramatic conclusion of the crisis with the abandonment of the peg and the debt default.

Some have pointed out that the recovery period coincided with a boom in the price of primary commodities (soybeans), which notoriously account for an important part of Argentinian exports. Clearly the increase in commodity prices has been a windfall for Argentinian agricultural producers with possible trickling effects on the rest of the economy. Yet, the magnitude of the windfall itself can hardly account for the large GDP gains. In fact, soybean was sold in Iowa at an average price of \$4.57 per bushel in the year 2000 and at \$5.88 in the year 2005. Only since 2010 prices have gone up substantially more, but at that point, the Argentinian economy had already gone through almost a decade of economic boom. Furthermore, the high price of soybeans in the second half of



the 1990s (it was \$7.32 in 1997) does not seem to have been helpful to avoid the economic depression. The route to recovery in Argentina has been characterized by setbacks, but also by a number of inventiveness that may have played a role in defraying the shock of the crisis.

### **Bank runs**

At the end of November 2001, rising worries about a peso devaluation and a deposit freeze, increased overnight interest rates sharply. Additionally, spreads between US Treasury bonds and Argentine government bonds increased by 5,000 basis points. In order to stop the effects of a bank run, the Minister of Economy Domingo Cavallo announced a freeze on bank deposits. As in Greece, this measure considerably reduced the capacity of depositors to withdraw and manage their bank deposits. The deposit freeze had even accentuated the feeling among the population that a crisis was going to explode, and a series of demonstrations surged along the country. Subsequently, the IMF announced a cut of its support to Argentina, as it had failed to meet the conditions tied to the rescue program and Argentina lost its last source of funding. With a total amount of almost USD 22bn in 2000 and 2001, Argentina was the largest debtor the IMF had at the time. In the protests and raiding that followed, 24 people died. President De La Rúa and his cabinet resigned soon after these events.

### **Claims after the currency devaluation**

The government decided to 'pesofy' the loans at a rate of A\$1 (Argentinean peso) for each dollar (USD) owned by banks and A\$1.4 for each dollar deposited in a bank. Alternatively, people could get a government bond (Boden 2012), that paid A\$775.12 for a nominal of USD\$100, when the official dollar was 4.35A\$/USD. A less attractive bond was issued the following year: it paid A\$930 for a nominal of USD\$100 but could only be converted at 8.95A\$/USD.

## Massive use of money-bonds

In 2001, different Argentinean provinces started to print their own quasi-currencies, several emergency bonds (technically called Treasury Bills for Debt Settlement) issued between 2001 and 2002. They were created as a way of alleviating the enormous financial and economic crisis that occurred in Argentina in 2001. These bonds were considered a “necessary evil” that initially allowed to cover the absence of money circulation. While at first the issuing of these quasi-currencies was controversial, it later gained acceptance partly because of the size of the issue and partly because of the magnitude of the crisis. These bonds circulated in parallel to the Argentinean peso. They could be used to pay some taxes, shopping and even salaries. As the pesos, they were denominated in different values 1, 2, 5, 10, 20, 50 and 100 to facilitate transactions (nominally equivalent to a Convertible Peso). The most popular bond was the Patacon that was issued in Buenos Aires. This bond had an interest rate of 7% and there were two series (Series A maturing in 2003, while the B in 2006). It is estimated that the total issue amount for the Patacons only reached 2.705 millions. Once the economic recovery of Argentina started in late 2003, the government honored 100% the principal of these outstanding bonds, and even the interests were eventually paid. Up to 13 quasi-currencies were issued by different provinces during that period.

## Credit

Figure (1) shows that in Argentina the “Sovereign Bond Interest Rate Spreads, basis points over US Treasuries” has been growing for the last 18 years showing the difficulties Argentina has had in accessing to international credit market. The difficult access to foreign funding has pushed the Argentinean government to get financed internally through the central bank, retirement funds and the tax agency. The high inflation that resulted from this policy (close to 26%,

unofficial measures) has made the use of local credit extremely expensive for companies and households. However, as Argentina started posting large surpluses on the fiscal and current accounts after the default and large devaluation of the peso, access to foreign finance became less urgent. Argentina took a hardline approach against creditors. By 2010, 92% of the Argentine defaulted debt had been restructured. However, ongoing litigation by holdout creditors could lead to a new Argentine default in the near future.

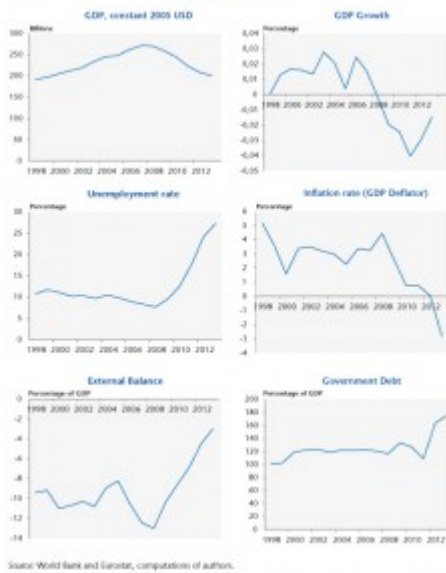
In conclusion, the Argentina exit from the debt crisis through a default did not have long lasting dramatic consequences on real activities as many had anticipated. The crisis meant a transfer of wealth from depositors to debt holders and promoted exports. After an abrupt decline, GDP quickly started its ascent and the country experienced high rates of growth in the 2000s, which reduced significantly unemployment.

Nevertheless the period right after the devaluation was characterized by political instability, large macroeconomic fluctuations and social revolts. The political stability that followed, might have played a role in sustaining growth, but the rate of inflation climbed at double-digit figures and the various price control mechanism introduced by the government have created a lot of frictions in the business sector. Finally, the increasing isolation of the government from the international political arena partly, due to the outstanding litigation with international lenders, could, in the long run, have negative repercussion on trade.

Figure 1. Argentina



Figure 2. Greece



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[1] “Grexit” is a combination of “Greece” and “exit” and refers to the possibility of Greece leaving the Euro area.

[2] The plots are generated using World Bank data, except for the level of 2013 Greek debt/GDP ratio, which is taken from Eurostat.

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# Is Greece in the process of divorce?

By [Jérôme Creel](#)

The ongoing Greek saga is looking more and more like an old American TV series. JR Ewing returns to the family table feeling upset with Sue Ellen for her failure to keep her promise to stop drinking. Given the way things are going, a divorce seems inevitable, especially if Bobby sides with his brother and refuses to help his sister-in-law any longer.

Just like in Dallas, addiction to a potentially toxic substance, public debt, is plaguing Europe's states and institutions. Analyses on Greece focus mainly on debt-to-GDP ratios. On these terms, Greece's public debt-to-GDP ratio rose from 2011 to 2014: European public opinion can therefore legitimately question the ability of the Greek people (really the Greek state) to curb spending and raise taxes. A divorce is inevitable. But if we look at the amounts involved, the situation seems somewhat different.

Between 2011 and 2014, Greece's public debt decreased by 39 billion euros according to Eurostat. Seen in this light, the Greek state is making a real effort. But this obscures the aid of the creditors. The Greek state has in fact benefited from the restructuring of its debt, including a partial but important default on its public debt to its private creditors. According to [Jeromin Zettelmeyer, Christoph Trebesch and Mitu Gulati](#), the amount of debt for which the Greek state was forgiven was on the order of 100 billion euros. Without this aid, the amount of Greece's debt would have increased between 2011 and 2014 by 61 billion euros (100 billion minus the

aforementioned 39 billion). This is not nothing for a country like Greece. However, note that Greek debt accounts for only 3.5% of the euro zone's total public debt.

Furthermore, how were the other EU countries faring at the same time? No better! The addiction to public debt, if we can indeed speak of addiction, is general. The public debt of the EU and the euro zone rose by 6 GDP points, or by 1400 billion and 800 billion respectively. By comparison, the increase in the Greek debt is a drop in the ocean. Germany's public debt rose by 68 billion euros, Italy's by 227 billion, Spain's and France's by 285 billion respectively, and the United Kingdom's by 277 billion pounds, or 470 billion euros, again according to Eurostat. Relative to their respective GDPs, Spain's debt increased by almost 30 points, Italy's by more than 15 points, France's by 10 points, and the UK's by nearly 8 points. Only Germany has seen its debt ratio go down, thanks to stronger economic growth.

[Paul de Grauwe](#) recently insisted on the fact that Greece's debt is sustainable: given the various debt restructurings already undertaken, the public debt-to-GDP ratio of 180% would be roughly 90% in present value, i.e. after having accounted for future interest payments and scheduled repayments, some of which are in a very distant future<sup>[1]</sup>.

Economists, including in this case Paul de Grauwe, use the state's intertemporal budget constraint to understand the sustainability of public debt. Rather than using a retrospective approach, the public debt can be analysed from a prospective approach. If the following year's debt depends on the present debt, then by symmetry, the present debt depends on the following year's debt. But next year's debt will depend on the following year's debt, by iteration. Ultimately, the present debt depends on the debt of the following year and on and on until the end of time: it depends on future debts. But these future debts also depend on future public deficits. The intertemporal budget constraint thus expresses the fact that

today's public debt is equal to the sequence of future public deficits and to the final debt (that at the end of time), all expressed in present values.

In contrast to businesses and households, the state is supposed to have an infinite time horizon, which makes it possible to reset the present value of the debt at the "end of time" to zero. We can then say that the public debt is sustainable if future governments provide adequate public surpluses to pay off that debt. This is possible after periods of high public deficits, provided that these periods are followed by others during which governments accumulate budget surpluses. Given the extension of the maturity of Greek debt and the low level of future interest payments, the budget surplus required to repay the current debt is low. Paul de Grauwe concludes that Greece is subject to a liquidity crisis rather than a sovereign default crisis. So, again according to Paul de Grauwe, what is needed is to adjust the fiscal austerity plans and forthcoming reforms to the actual level of the public debt, which is substantially lower than the level being used as the basis for negotiations between the Greek state and the "institutions" (ECB, Commission, IMF). In other words, the "institutions" can loosen their grip.

The "Greek case" can thus be relativized and the divorce put off. Sue Ellen's addiction is less exceptional than it seems at first glance.

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[1] After 2015 and 2019, which will involve substantial repayments from the Greek state, the "difficult" years will then be situated beyond 2035 (see the amortization profile of Greece's debt in [Antonin et al., 2015](#)).