

Inflationary pressures are mounting

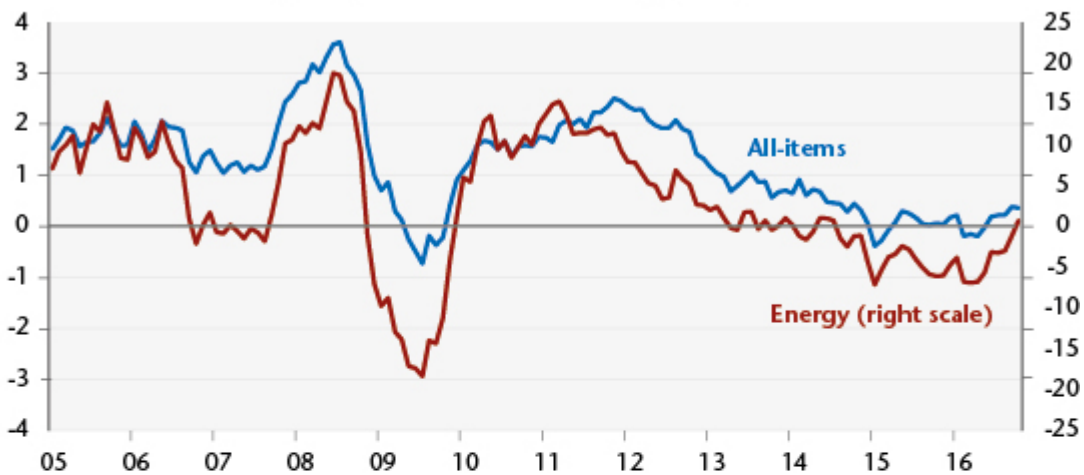
By [Hervé Péléraux](#)

The publication of the price index by the INSEE on November 15 confirmed the return of inflation to positive territory, +0.4%, in October and September, after it oscillated around 0 since the end of 2014. The deflationary phase experienced over the past two years has in part replicated the trajectory of the energy price index, which saw the price of oil fall in early 2016 to one-third of its price in mid-2014. With a weighting of almost 8% in the all-items index, the energy price index, which incorporates the price of fuel but also of oil-indexed products such as gas and electricity, automatically pushed down inflation. This phase of energy-related disinflation now seems to have come to an end, with crude oil prices rising to between USD 45 and 50 a barrel since the low in mid-January 2016 at under USD 30. The gradual rise in the year-on-year change in the energy price index since spring has in fact pulled along the overall index.

Figure 1. Inflation in France

In %, m/m-12

Change in price index and its energy component



Change in the underlying price index



Source : INSEE.

However, the euro's depreciation against the dollar, which paralleled the fall in oil prices (from 1.35 dollars per euro on average in the first half of 2014 to 1.10 on average since spring 2015), has had a contrary inflationary effect, first by moderating the fall in the prices of energy imports after their conversion from dollars to euros, and second by increasing the price of non-energy imports. Changes in the underlying price index, which excludes products with volatile prices (energy, some fresh food products) and products with administered prices (health care, tobacco, public prices) from the overall index, reflected this second effect by rebounding from early 2015. This increase in underlying inflation was not, however, due solely to the depreciation of the euro. The

gradual end of the period of stagnation that marked the French economy between Q2 2011 and Q2 2014 reactivated inflationary mechanisms that had previously been thwarted by the easing of tension and the rise in unemployment.

The inflationary upturn begun in the last few months is expected to continue until 2018. The exhaustion of the disinflationary impact of the oil counter-shock and the rise in the price of crude oil, which has already largely occurred but will continue through the forecasting horizon up to 52 euros per barrel from its low point in early 2016 (31 euros per barrel) should mark the end of the disinflationary phase linked to energy prices. On top of this, the depreciation of the European currency, also already accomplished in large part, will continue, with a fall from 1.10 euros per dollar in mid-October 2016 to 1.05 according to our forecast. This will contribute to higher import prices. Inflation should therefore have hit a low point in the second quarter of 2016 before becoming positive again in the second half of 2016. By 2017, price increases will be close to 2% year-on-year, partly due to the effect of the recovery in oil prices and the depreciation of the euro. Excluding these two effects, inflation would just exceed 1% by end 2017 and then reach 1.5% the following year.

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The price-wage loop

Inflation forecasts are based on the modelling of a price-wage loop that estimates the parameters of the relationship between employees and companies: employers pass wage increases on to prices to preserve their margins, while employees respond to price increases by trying to obtain higher wages to preserve their purchasing power. Two equations model this process.

The wage formation equation (1) has terms for indexing wages

to prices (PC), labour productivity (π), a part of which is redistributed in the form of wages, the unemployment rate (U), which governs workers' bargaining power, and the minimum wage (SMIC), which can have impacts on the scale of adjacent wages.

Equation (2) gives the prices of value added (PVA), a function of unit wage costs, which can be broken down into the difference between wages (W) and labour productivity. The elasticity between the value-added prices and the unit wage cost ($W - \pi$) is set to 1, which means that, in the long run, fluctuations in unit labour costs do not affect companies' target margin rate. Since there is inflationary pressure on the productive apparatus, the rate of utilization of production capacity (TU) is added to the unit labour costs.

$$W_t = f_1 [P_t^C (+), \pi_t (+), U_t (-), SMIC_t (+)] \quad (1)$$

$$P_t^{VA} = f_2 [(W_t - \pi_t) (+), TU_t (+)] \quad (2)$$

The formation of prices in the domestic market also depends on the prices of imported goods excluding taxes (MP), which are a function of the price of oil expressed in euros (PPétrole) and the nominal effective exchange rate (TCEN).

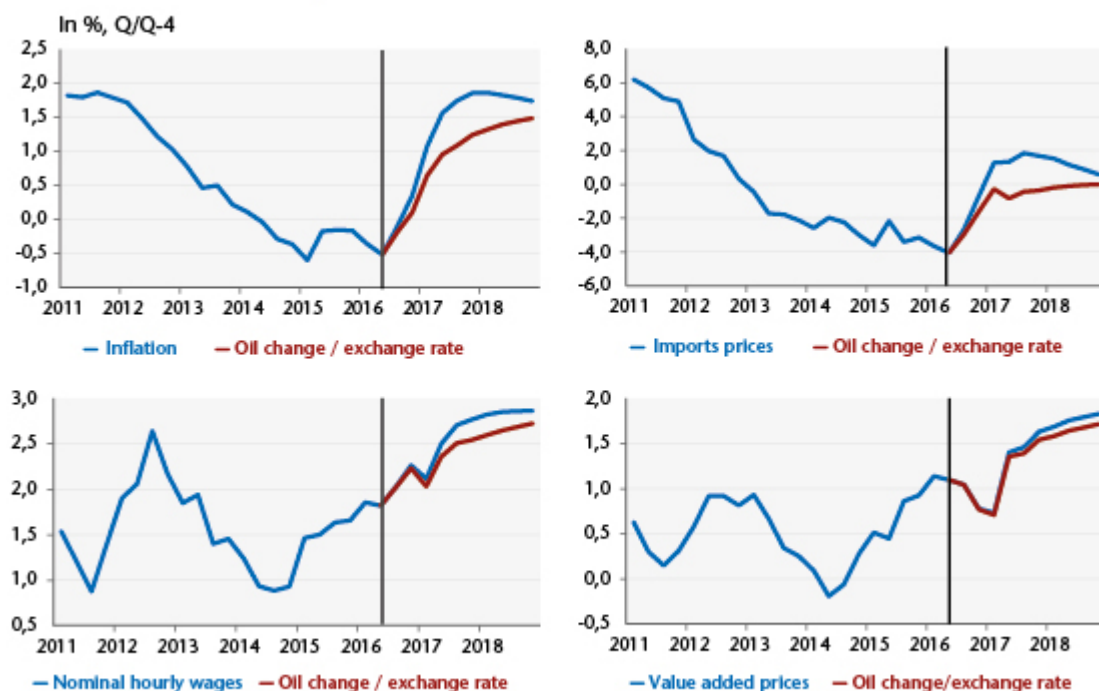
$$P_t^M = f_3 [P_t^{PETROLE} (+), TCEN_t (-)] \quad (3)$$

Finally, an accounting equation for the formation of domestic prices combines the value-added prices and the pre-tax import prices, with the total being increased by the rate of VAT to simulate the after-tax price index on the domestic market (here the deflator of household consumption from the national accounts). The different equations are estimated using error correction models.

In accordance with this model, the trajectory of inflation by 2018 will be affected both by external impulses, namely changes in the effective exchange rate and in oil prices, and by internal impulses, namely the response of wages to these external shocks through indexation and the fall in

unemployment. The renewed rise in oil prices and the depreciation of the effective exchange rate will revive imported inflation. Import prices will thus once again begin to rise in the first quarter of 2017, and will therefore contribute accounting-wise to the rebound in inflation. The indexing mechanisms will then push up wages, due to the added inflation. The fall in the unemployment rate begun at the end of 2015 will add to this impulse. Nevertheless, the rebound in inflation in the second half of 2016 cannot be reduced solely to the impact of external shocks. By neutralizing these effects and holding the nominal effective exchange rate and oil prices constant at their mid-2016 values, the rebound in inflation would not disappear, but it would be 0.6 percentage point lower at end 2017 (and 0.2 point lower at end 2018) relative to what comes from the central accounts (Figure 2).

Figure 2. Inflation and its determinants



Sources : INSEE, OFCE estimates and forecasts.

An end to growth?

Analysis and Forecasting Department (international team)

This text relies on the 2016-2018 forecast for the global economy and the euro zone, the full version of which [is available here, in French](#).

After avoiding a Grexit in the summer of 2015, Europeans will now have to face a Brexit. In addition to what should be a significant impact on the UK economy lies the question of the effect this shock will have on other countries. Given that all the indicators seemed to be green for finally allowing the euro zone to recover from the double-dip recession following the 2007-2008 financial crisis and then the sovereign debt crisis, will a Brexit risk interrupting the trend towards a recovery? This fear is all the more credible as the delayed recovery was not sufficient to absorb all the imbalances that built up over the years of crisis. The unemployment rate for the euro zone was still over 10% in the second quarter of 2016. A halt to growth would only exacerbate the social crisis and in turn fuel doubt – and therefore mistrust – about Europe's ability to live up to the ambitions set out in the preamble to the [Treaty on the Functioning of the European Union](#) and reiterated in [Lisbon in 2000](#).

Nevertheless, despite fears of a new financial shock, it is clear that it hasn't happened. Brexit will of course be the fruit of a long process that has not yet started, but it seems that the worst has been avoided for now. The British economy will see growth halved in 2017. But the short-term negative effects on other euro zone countries should be fairly limited, except perhaps Ireland which is more interdependent on the United Kingdom. In any case the global recovery should continue, but growth will be down in the euro zone from 1.9% in 2015 to 1.3% in 2018.

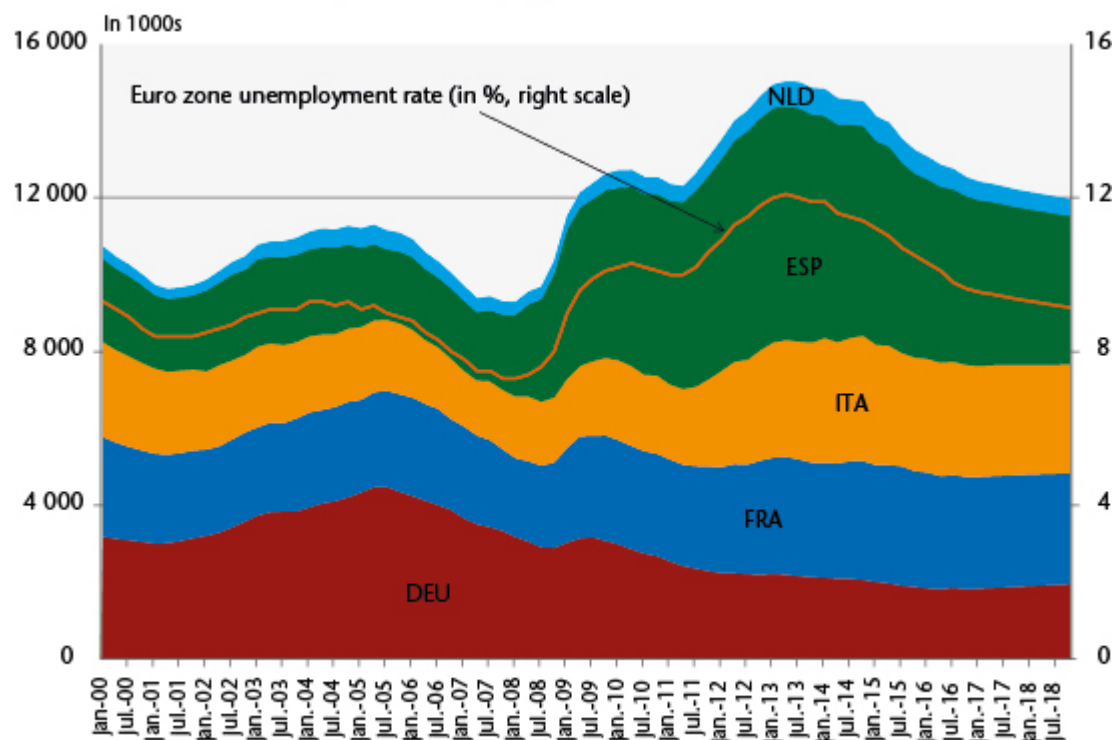
The many factors that helped initiate the recovery^[1] will to some extent lose steam. The price of oil has already begun to rise after hitting a low of under USD 30 in January 2016. It is now once again over 50 dollars a barrel. As for the euro, it has fluctuated since the beginning of the year at around 1.10 dollar, while in 2014 and 2015 it depreciated by 12.5% and 11.3%, respectively. In contrast, the European Central Bank has stuck to its expansionary monetary policy, and fiscal policy is much less restrictive than from 2011 to 2014. In 2015 and 2016, the aggregate fiscal impulse was even slightly positive.

Finally, world trade is slowing significantly, well beyond what would be expected simply from the change in China's economic model, which is resulting in a deceleration of imports. There were hopes that after the recovery kicked off, a virtuous cycle of growth would be triggered in the euro zone. Higher growth partly driven by exogenous factors would lead to job creation, higher incomes and better prospects for households and businesses. These elements would be conducive to a return of confidence and in turn stimulate investment and consumption. The dynamics of productive investment in France and Spain in the last quarter have given credence to this scenario.

The recovery will certainly not be aborted, but this rate of growth seems insufficient to reduce the imbalances brought about by long years of recession and low growth. At the end of 2018, the unemployment rate in the euro zone will still be nearly 2 percentage points higher than at end 2007 (graphic). For the five largest countries in the euro zone, this represents nearly 2.7 million additional people without jobs. In these conditions, it is undoubtedly the social situation of the euro zone which, even more than Brexit, is putting the European project in jeopardy. Europe certainly cannot be held solely responsible for low growth and high unemployment in the various countries, but the current forecast indicates that we

have undoubtedly not achieved the goals that were set in Lisbon in 2000, i.e. making the European Union “the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion”.

Figure: Unemployment in the euro zone



Source: Eurostat, OFCE forecasts – October 2016.

[1] View See the OFCE’s earlier [synthesis](#) (in French) of the international outlook (summarized [here](#) in English).

France’s battered growth

By the Analysis and Forecasting Department

This text summarizes the 2016-2017 forecast for the French economy. [Click here to consult the full version, in French.](#)

The news on 28 October that French economic growth came to 0.2% in the third quarter of 2016 constitutes a cyclical signal that is consistent with our analysis of the state of France's economy. This figure is close to our latest forecast (+0.3% forecast for the third quarter) and in line with our growth scenario up to 2018.

After three years of sluggish growth (0.5% on average over the period 2012-14), activity picked up moderately in France in 2015 (1.2%), driven by falling oil prices, the depreciation of the euro and a lowered level of fiscal consolidation. For the first time since 2011, the French economy has begun to create jobs in the private sector (98,000 for the year as a whole), which has been encouraged by tax measures that cut labour costs. Combined with an increase in the number of employees in the public sector (+49,000) and the creation of non-salaried jobs (+56,000), the number of unemployed according to the ILO fell in 2015 (-63,000, or -0.2 percentage point of the active population). Meanwhile, boosted by additional tax cuts on industrial equipment, business investment has revived in 2015 (+3.9% yoy).

French growth has been below that of the rest of the euro zone since 2014; in addition to the fact that it did better over the period 2008-2013, this is due to two major factors: first, France made greater fiscal adjustments than its European neighbours over the period 2014-16, and second, exports did not contribute much to growth, even though the fiscal approach to supply policy aimed to restore the competitiveness of French business. It seems, however, that since 2015 French exporters have chosen to improve their margins rather than to reduce their export prices, with no impact on their export volumes. While for a number of quarters now this behaviour has resulted in falling market share, this might still turn out to be an asset in the longer term due to strengthening the financial position of the country's exporters, especially if these margins are reinvested in non-cost competitiveness and

lead to upgrading the products manufactured in France.

In 2016, despite a strong first quarter (+0.7%) driven by exceptionally strong domestic demand excluding stock (+0.9%), GDP growth will peak at 1.4% on average over the year (see table). The mid-year air pocket, which was marked by strikes, floods, terrorist attacks and the originally scheduled end of the investment tax reduction, partly explains the weak recovery in 2016. As a result of the pick-up in margin rates, the historically low cost of capital and the extension of the investment tax cut, investment should continue to grow in 2016 (+2.7% yoy). The creation of private sector jobs should be relatively dynamic (+149,000), due to support from the CICE competitiveness tax credit, the Responsibility Pact and the *prime à l'embauche* hiring bonus. In total, taking into account unwaged employees and the workforce in the public sector, 219,000 jobs will be created in 2016. The unemployment rate will fall by 0.5 point over the year, of which 0.1 point is linked to the implementation of the "training 500,000" programme, so at year end will come to 9.4% of the workforce. Meanwhile the public deficit will drop to 3.3% of GDP in 2016, after a level of 3.5% in 2015 and 4% in 2014.

In 2017, France's economy will grow at a 1.5% rate, which will be slightly above its potential rate (1.3%), as the country's fiscal policy will not hold down GDP for the first time in seven years. On the other hand, in contrast to the forecast last spring, France will have to confront two new shocks: the negative impact of Brexit on foreign trade and the terrorist attacks' influence on the number of tourists. These two shocks will cut 0.2 percentage point off GDP growth in 2017 (following 0.1 point in 2016). The French economy will create 180,000 jobs, including 145,000 in the private sector, reducing the unemployment rate by "only" 0.1 point, due to the rebound in the labour force as people who benefit from the training programme gradually re-join the workforce. The renewed rise in oil prices and the depreciation of the euro

will see inflation rising to 1.5% in 2017 (after 0.4% in 2016). Finally, the government deficit will be 2.9% of GDP in 2017, back below the 3% threshold for the first time in ten years. After stabilizing at 96.1% of GDP in 2015 and 2016, the public debt will fall slightly, down to 95.8% in 2017.

The French economy though battered by new shocks and with the wounds from the crisis far from having healed, is recovering gradually, as can be seen by the gradual improvement in economic agents' financial position: business margins are up, household purchasing power has rebounded, the deficit is down and the public debt has stabilized.

Table. Summary of the forecast for France

Change from the preceding period, in %

	2016				2017				2015	2016	2017	2018
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
GDP	0.7	-0.1	0.3	0.5	0.4	0.4	0.4	0.4	1.2	1.4	1.5	1.5
GDP / capital	0.6	-0.2	0.2	0.4	0.3	0.3	0.2	0.3	0.8	0.9	1.0	1.0
Household consumption	1.1	-0.1	0.2	0.5	0.3	0.3	0.3	0.3	1.5	1.5	1.3	1.3
Public consumption	0.4	0.4	0.2	0.2	0.2	0.2	0.3	0.3	1.4	1.5	1.0	1.2
Total GFCF, of which:	1.3	-0.2	0.4	0.6	0.7	0.4	0.4	0.4	0.9	2.7	1.9	1.4
<i>Private production</i>	2.1	-0.4	0.4	0.6	0.8	0.4	0.4	0.4	2.7	3.7	1.9	1.4
<i>Housing</i>	0.1	-0.3	0.3	0.6	0.6	0.7	0.5	0.4	-0.8	0.4	2.0	1.5
<i>Public</i>	0.1	0.7	0.4	0.5	0.5	0.5	0.4	0.4	-3.9	2.5	1.9	1.2
Exports of goods and services	-0.4	0.2	0.5	0.5	0.6	0.6	0.6	0.6	6.0	0.8	2.2	2.5
Imports of goods and services	0.2	-1.8	0.5	0.4	0.5	0.5	0.5	0.5	6.4	1.8	1.3	2.0
<i>Contributions :</i>												
Non-inventory domestic demand	0.9	0.0	0.2	0.5	0.4	0.3	0.3	0.3	1.4	1.8	1.4	1.3
Change in Inventory	-0.1	-0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	-0.1	0.1
Foreign trade	-0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.3	0.2	0.1
Consumer prices (HICP), Q/Q-4	0.0	0.1	0.4	0.9	1.8	1.1	1.5	1.6	0.1	0.4	1.5	1.6
Unemployment rate	9.9	9.6	9.5	9.4	9.4	9.4	9.4	9.3	10.1	9.6	9.4	9.3
Household savings rate (% of GDI)	14.5	14.8	14.9	14.7	14.6	14.5	14.6	14.7	14.5	14.7	14.6	14.6
Margin rate of non-fin corp. (% of VA)	32.2	31.7	31.8	31.8	31.9	31.8	31.8	31.7	31.4	31.9	31.8	31.8
Public deficit (% of GDP)									-3.5	-3.3	-2.9	-2.4
Public debt (% of GDP)									95.8	96.1	95.8	95.3

Sources: INSEE, OFCE forecasts 2016-2018.

How negative can interest

rates get?

By [Christophe Blot](#) and [Paul Hubert](#)

On 11 June 2014, the European Central Bank decided to set a negative rate on deposit facilities and on the excess reserves held by credit institutions in the euro zone. This rate was then lowered several times, and has been -0.40% as of March 2016. This raises questions about the reasons why agents, in this case the commercial banks, agree to pay interest on deposits left with the ECB. In an [article](#) on the causes and consequences of negative rates, we explain how the central bank has come to impose negative rates and how far they can go, and then we discuss the costs of this policy for the banks.

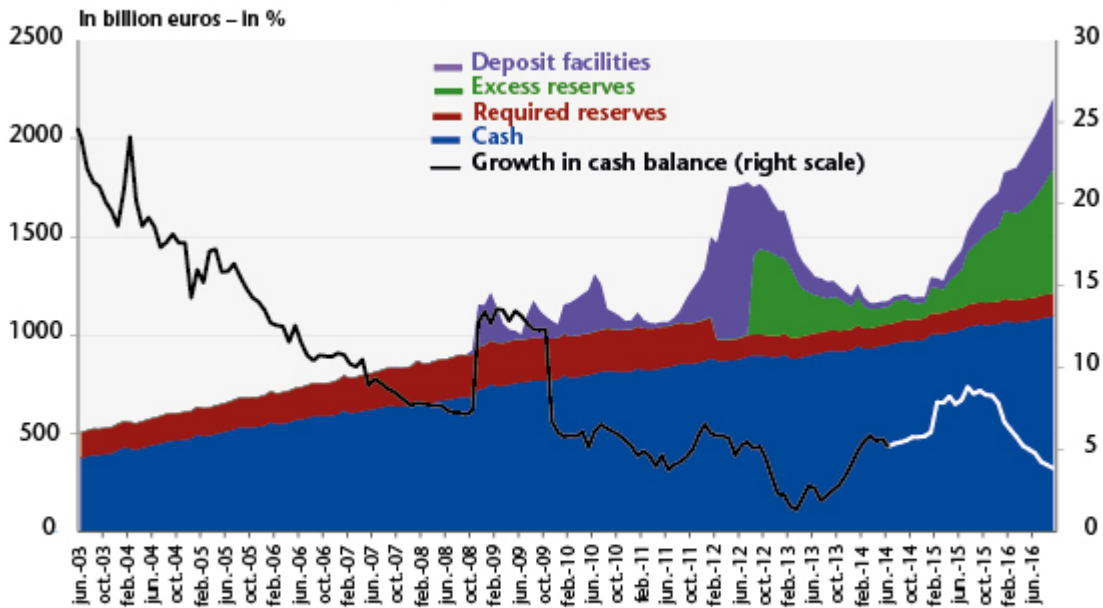
To conduct its monetary policy, the ECB requires commercial banks in the euro zone to have an account with the Bank, which is used to meet the minimum reserve requirements[\[1\]](#) and to participate in operations to provide liquidity. This account can also be used to perform clearing transactions between commercial banks. The required reserves are remunerated at a rate set by the ECB. Beyond this amount, in normal circumstances the banks do not receive any other compensation. Moreover, the ECB also provides a deposit facility allowing the banks to deposit cash with the ECB for a period of 24 hours, with remuneration paid at a deposit facility rate.

Prior to 2008, the commercial banks held only the reserves that they needed to meet the minimum reserve requirements (see the graph). Any stock of excess reserves[\[2\]](#) was very small: less than 1 billion euros on average until 2008. The same was true for the balance of deposit facilities, which was 321 million euros on average. Since the crisis, the ECB has replaced the interbank market and has intervened to provide a large amount of liquidity. Through the banks' participation in various ECB programmes to purchase securities (quantitative

easing, QE), they also receive liquidities that are placed in their reserve account, to such an extent that by September 2016 the accumulated stock of excess reserves and deposit facilities reached 987 billion euros. The negative rates do not apply to all monetary policy operations but only to the portion of the cash left on deposit by the banks (total assets of the euro zone banks are 31 trillion euros). At the current rate, the direct annual cost to the banks is thus 3.9 billion euros.

Given that the banks are not required to hold these excess reserves, it is reasonable to ask why they accept to bear this cost. To answer this question, it is necessary to examine the possibilities for trade-offs with other assets that could be used as a substitute for the excess reserves. The reserves are in fact money [\[3\]](#) issued by the central banks solely for the commercial banks and are therefore a very liquid asset. But the rates on the money market are also negative, to such an extent that it is a matter of indifference to the banks whether they have excess reserves and place their liquidities on the interbank market for a week or buy Treasury securities issued by the French or German government, for example, with yields that are also negative.

Graphique. Reserves and cash



Note: The rate of growth of the cash balance (year on year) is shown by a white line during the period of negative rates.

Source : ECB.

Actually, the best substitute for the reserves would be to hold the cash directly. The substitution could therefore take place within the monetary base if the banks called for the conversion of their excess reserves and deposit facilities into cash, which has the same properties in terms of liquidity and zero nominal interest. Currently this would mean converting 987 billion euros of reserves into banknotes, nearly doubling the amount outstanding, as the volume of notes in circulation in September 2016 was 1,096 billion euros.

The fact that these agents can have an asset that is not interest-bearing is the argument for why nominal rates cannot be negative. In practice, because there are costs to holding currency in the form of notes, this trade-off does not take place when the threshold for negative rates is exceeded. The nominal rate can therefore be negative. It is clear however that there is a threshold at which holding cash would be preferable. The cost of holding large amounts of cash is not known precisely, but it seems that it is not insignificant, and in any case is higher than the 0.4% currently charged by the ECB.

It seems that in practice there has not yet been any such substitution, since the volume of outstanding notes in circulation has not risen particularly since negative rates were first set (graph). [Jackson \(2015\)](#) has made an assessment indicating that the various costs of holding money in the form of notes and coins could be up to 2%, which would act as an effective lower bound (ELB) for a reduction in rates.

Beyond the costs that negative rates represent for banks, the expected benefits of such a policy need to be considered, as well as the overall context in which they have been set. Together with negative rates, the ECB is using its targeted long-term refinancing operations (TLTRO II) to enable the banks to finance themselves at negative rates, and is thus urging them doubly (via the cost of their excess reserves and via the rate at which they are financed) to grant credit to the real economy.

[\[1\]](#) Credit institutions are in practice required to leave reserves in this account in the amount of a certain fraction of deposits collected from the non-financial sector. See [here](#) for more details.

[\[2\]](#) Amount of reserves beyond the required reserves.

[\[3\]](#) Together with the banknotes issued, these form what is called the monetary or money base, M_0 .

Does central bank optimism

move financial markets?

By [Paul Hubert](#) and Fabien Labondance

“Animal spirits”, also called “errors of optimism and pessimism” or “sentiments”, contribute to macroeconomic fluctuations, as has been pointed out by Pigou (1927) and Keynes (1936) and more recently by Angeletos and La’O (2013) [\[1\]](#). Quantifying these kinds of unobservable concepts is crucial for understanding how economic agents form their expectations and arrive at decisions that in turn influence the economy. In a recent [working paper](#), “Central Bank Sentiment and Policy Expectations”, we examine this issue by analysing central bank communications and assessing their impact on expectations about interest rate markets.

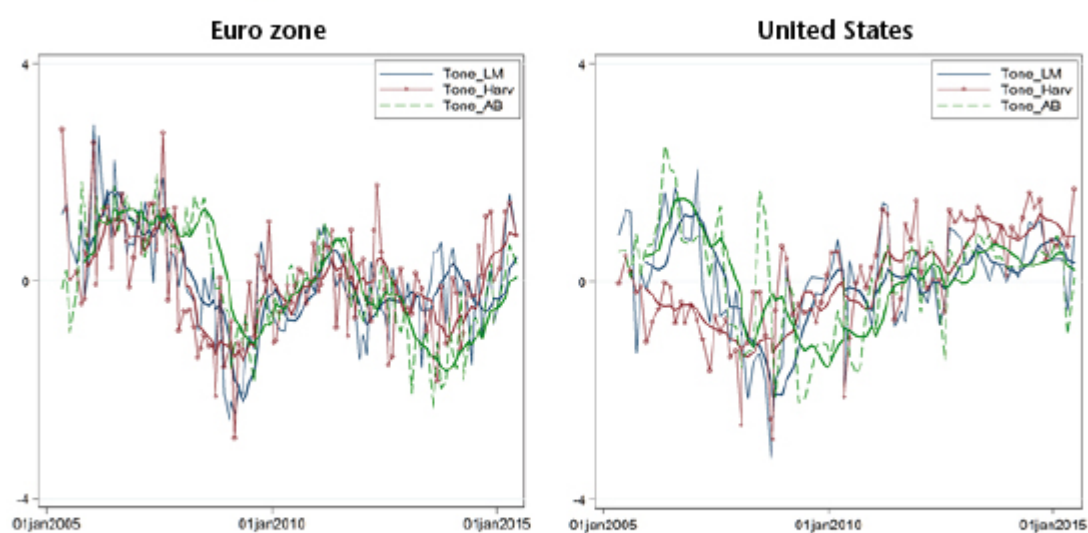
Our study aims to quantify the “sentiment” conveyed by central bank communications using the monetary policy statements of the European Central Bank (ECB) and the US Federal Reserve (Fed). We then test whether the optimism or pessimism transmitted in these statements affects the term structure of short-term interest rate expectations.

The main challenge is measuring a concept like the “sentiment” of a central bank, which is not very tangible. We first quantified the tone used by the ECB and the Fed in their monetary policy statements by using a computational linguistics approach based on three dictionaries of “positive” and “negative” words [\[2\]](#). Note that the goal here is not to measure the orientation of the discourse (whether, for example, expansionary or restrictive) but rather to quantify the use of words with a positive or negative tone in order to measure the overall tonality of the speech, regardless of its ultimate message. Sentiment is thus conceived as a component that is independent of economic fundamentals and the monetary policy decisions actually taken [\[3\]](#). In other words, we look at whether the use of certain words rather than others,

regardless of the message communicated, affects the financial markets.

Figure 1 shows changes in the tone of central bank statements, calculated on the basis of the three dictionaries, for the ECB and the Fed from 2005 to 2015. The tone is correlated with the economic cycle: the speech is more optimistic (positive tone) during periods of growth and more pessimistic (negative tone) during periods of recession. Using this measure of tonality, we can see the 2008-2009 recession in the euro zone and the US, as well as the sovereign debt crisis in the euro zone in 2012-2013. The tone adopted by central bankers seems therefore to be the product of a combination of the central banks' assessment of the current and future state of the economy and of the sentiment that they are conveying.

Figure 1. Tone of central banker statements



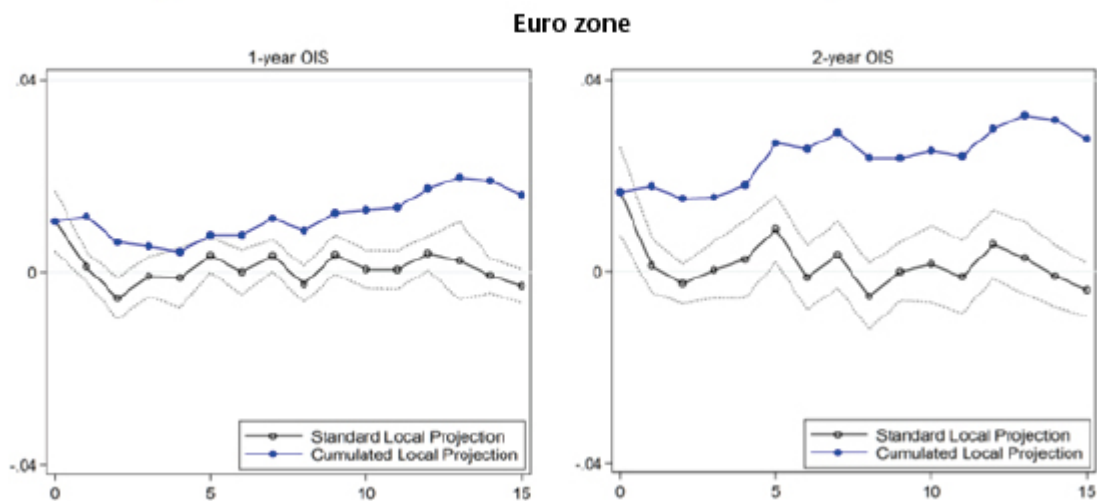
Source: The changes in tone were calculated using three dictionaries: Apel and Blix Grimaldi (2012 – AB); Loughran and McDonald (2011 – LM); and General Inquirer's Harvard IV-4 Psychosocial (Harv). The tone variables were normalized. The bold lines indicate the moving averages of the latest six statements on monetary policy.

After isolating the “sentiment” component of the variables quantifying the tone, we measured the impact of this sentiment on changes in short-term interest rate expectations, as measured by interest rate swaps (OIS – Overnight Indexed Swaps) for maturities ranging from 1 month to 10 years. Since this sentiment is communicated on the day of the monetary policy decision, we also checked that we are not measuring the

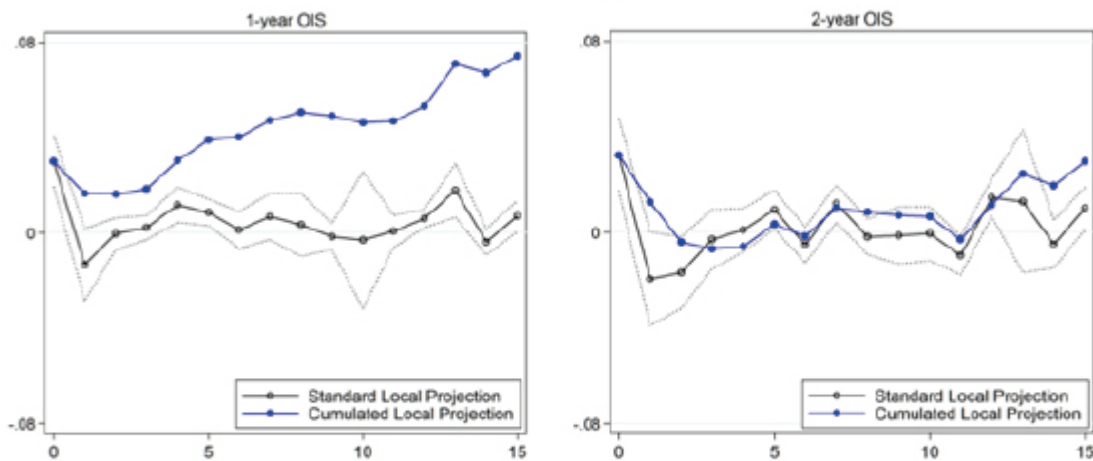
effect of the decision itself.

Our results show that a discourse with a positive (i.e. optimistic) sentiment has a positive effect on interest rate expectations for maturities ranging from 3 months to 10 years in the euro zone and on maturities from 1 to 3 months and from 1 to 3 years in the United States. The peak effect is for maturities of around 1 to 2 years both in the euro zone and the United States. We also show that this effect is persistent and tends to grow over time (see Figure 2). We also find that the impact of the sentiment depends on the precision of the signal, its size and its sign (the effect of pessimism is stronger than that of optimism, for example), as well as on the level of inflation and growth.

Figure 2. Effect of sentiment on interest rate expectations



United States



Note: Response function to a positive sentiment shock over 15 days using the methodology of Jorda (2005). The figure shows the estimated points, the 90% confidence interval and the cumulative effect.

Source: Jorda, Oscar (2005). "Estimation and Inference of Impulse Responses by Local Projections", *American Economic Review*, 95(1), 161-182.

These results show that market reactions are not due solely to the substance of the message but also to the way that it is expressed by the central bankers. Central bankers' sentiments influence the formation of interest rate expectations and seem to set the future prospects for rate policy. In a context where observers attentively scrutinize the slightest detail that might reveal the date when the Fed will once again raise rates, this study opens new avenues for research and suggests that it might be useful to test whether the sentiment conveyed in the last speech by Janet Yellen might be a good indicator.

[1] Angeletos, George-Marios, and Jennifer La'O (2013), "Sentiments", *Econometrica*, 81(2), 739-780 ; Keynes, John Maynard (1936), *General Theory of Employment, Interest and Money*, London, Palgrave Macmillan; and Pigou, Arthur Cecil (1927), *Industrial Fluctuations*, London, Palgrave MacMillan.

[2] We use three different dictionaries: one by Apel and Blix-Grimaldi (2012) that focuses on the communications of the central banks; one developed by Loughran and McDonald (2011) for a financial context; and the General Inquirer's Harvard dictionary, which lists positive and negative words used in everyday life. These dictionaries list words or phrases with

positive or negative connotations. The difference between the numbers of positive and negative words indicates the tone of the text: if there are more positive than negative expressions, the tone is optimistic, and vice versa. See Apel, Mikael and Marianna Blix-Grimaldi (2012), "The information content of central bank minutes", *Riksbank Research Paper Series*, no. 92; Loughran, Tim and Bill McDonald (2011), "When is a Liability not a Liability? Textual Analysis, Dictionaries, and 10-Ks", *Journal of Finance*, 66 (1), 35-65; and <http://www.wjh.harvard.edu/~inquirer/>.

[3] Cf. Angeletos and La'0 (2013).

Some clarifications on economic negationism

By Pierre Cahuc and André Zylberberg

We would like to thank Xavier Ragot for permitting us to respond to his comments about our book, *Le Négationnisme économique [Economic Negationism]*. Like many critics, Xavier Ragot considered that:

- 1) "The very title of the book proceeds from great violence. This book is on a slippery slope in the intellectual debate that is heading towards a caricature of debate and verbal abuse."
- 2) The approach of our work is "scientistic" and "reductive", with "faith in knowledge drawn from natural experiments" that he doesn't believe has a "consensus in economics".
- 3) We "want to import the hierarchy of academic debate into

the public debate”.

We would like to respond to these three allegations, with which we disagree.

1) On economic negationism

The term “economic negationism” does not caricature the debate. We chose it because the notion of “scientific negationism” is an expression used in debates about science, and we are talking about science here. This term is in common use, for instance on the scientific blog of the newspaper *Le Monde*, “Passeurs de Sciences”, which was named the best blog in the field of science. Our work reviews the significance of the term in the introduction, and then further develops this in Chapter 7. We note that scientific negationism is a strategy based on four pillars:

- Throw doubt on and castigate “la pensée unique” [doctrinaire, dogmatic “group think”];
- Denounce moneyed and ideological interests;
- Condemn science because it can’t explain everything;
- Promote “alternative” learned societies.

This strategy aims to discredit researchers who are getting what are considered disturbing results. It affects all disciplines to one extent or another, as is shown by the works of Robert Proctor[\[1\]](#) and Naomi Oreské and Erik Conway[\[2\]](#). And this is precisely the strategy adopted both by the *Economistes Atterrés*[\[3\]](#) and in the book entitled *A quoi servent les économistes s'ils disent tous la même chose* [*What good are economists if they all say the same thing*][\[4\]](#). These texts all rely on the four pillars of scientific negationism set out above. They loudly proclaim the existence of dogmatic “group think” (pillar 1), which more or less accedes to the demands of the financial markets (pillar 2), and is thus unable to foresee financial crises (Pillar 3), resulting in the need to create alternative learned societies (and while the AFEP, the

French association of political economists, already exists, there are demands to open a new economics section in the University) (pillar 4).

This strategy does not nourish debate. It annihilates it. It is intended solely to discredit researchers, both recognized and anonymous. Jean Tirole was recently the victim of this kind of discrediting by some self-proclaimed "heterodox" economists.

2) With regard to a scientific and reductive approach

Xavier Ragot says that "giving a consensus among economists the status of truth" (Cahuc, Zylberberg, p. 185) is troublesome, because it ignores the contributions of "minority" efforts. We are not erecting some consensus about truth; rather, we say very specifically (p. 185) that a consensus, when it exists, is *the best approximation* of the "truth". The use of quotation marks around the word *truth* and the qualification *best approximation* show clearly that we are not advocating some notion of scientific absolutism. Our use of the terms *consensus* and *truth* seems to us to correspond to the usual practice in the scientific process.

To bolster our position on this point, we'd like to cite our book once more, on pages 184-185: "Trusting in a community made up of thousands of researchers remains the best option for having an informed opinion about subjects that we don't really understand. It is nevertheless a form of betting, because even if science is the most reliable way to produce knowledge, it may be wrong. But to systematically call into question the results obtained by scientific specialists on a given question and prefer to rely on self-proclaimed experts is far riskier"; and on page 186: "The development of knowledge involves a collective undertaking where every researcher produces results that other researchers then test for their robustness. 'Scientific knowledge' is the photograph of this collective endeavour at a given point. This is the

most reliable picture of what we know about the state of the world. This image is not fixed, but is in fact constantly changing.”

So when no empirical study on the reduction of statutory or contractual working hours (excluding the reduction of charges) finds a positive effect on employment, there are no grounds for asserting that reducing working time can create jobs ... so long as no published studies find the opposite. Economic negationism leads to denying these results, saying that they stem from dogmatic thinking guided by either ignorance of the real world or a conspiracy. We affirm therefore that further debate is necessary, but to be constructive it must follow certain rules: the arguments must be based on contributions that have passed “peer review” to be certified as relevant. Of course, on many topics the existing studies do not make it possible to identify convergent results. When this is the case, it has to be acknowledged. There are several illustrations of this in our book.

3) On our recommendations for opening up debate and making it transparent

As we have mentioned before, our objective is not to close the “intellectual debate” to public access by laypeople, but to make the debate more constructive and informative. Debates on economics, even when simply presenting the facts, are often treated as political confrontations or boxing matches between different schools of thought. We’re simply saying that to organize informative discussion (page 209), “Journalists should stop systematically calling on the same people, especially when they have no proven research activity but are nevertheless capable of expressing themselves on every subject. They should instead seek out genuine specialists. The ranking of more than 800 economists in France on the IDEAS website can help them select relevant speakers. In any case, the web pages of researchers should be consulted to ensure that their publications appear in reputable scientific

journals, a list of which is available on the same IDEAS site. If an economist hasn't published anything in the last five years in one of the 1,700 journals listed on this site, it is clear that this person has not been an active researcher for a long time, and it is best to talk to someone else to get an informed opinion. Journalists should also systematically ask for references to the articles researchers rely on for their judgments and, where applicable, request that these items be made available online to readers, listeners and viewers."

So, far from wanting to "import the hierarchy of the academic debate into the public debate", as Xavier Ragot puts it, we simply want for non-specialists to be better informed about the academic debate, so that they are able to distinguish what are matters of uncertainty (or consensus) among researchers with regard to the political options being presented.

[\[1\]](#) *Golden Holocaust: La Conspiration des industriels du tabac*, Sainte Marguerite sur Mer, Équateurs, 2014.

[\[2\]](#) *Les Marchands de doute. Ou comment une poignée de scientifiques ont masqué la vérité sur des enjeux de société tels que le tabagisme et le réchauffement climatique*, Paris, Editions le Pommier, 2012.

[\[3\]](#) *Manifeste des économistes atterrés (2010) and Nouveau manifeste des économistes atterrés (2015)*, éditions LLL.

[\[4\]](#) Editions LLL 2015.

“The economic negationism” of Cahuc and Zylberberg: the first-order economy

By [Xavier Ragot](#)

The book by Pierre Cahuc and André Zylberberg[1] is an injunction to take scientific truths about economics into account in the public debate, in the face of interventions that conceal private and ideological interests. The book contains interesting descriptions of the results of recent empirical work using natural experiments for the purpose of evaluating economic policies in the field of education, tax policy, the reduction of working hours, etc.

However, assertions in the book that are at the borderline of reason ultimately make it a caricature that is probably counter-productive. More than just the debate over the 35-hour working week or France’s CICE tax credit, what is at stake is the status of economic knowledge in the public debate.

1) Has economics become an experimental science like medicine and biology?

The heart of the book is the claim that economic science produces knowledge to treat social ills that is on the same scientific level as medicine. I do not believe this is true. Consider this quote from the winner of the 2015 Nobel Prize in Economics, [Angus Deaton](#):

“I argue that experiments have no special ability to produce more credible knowledge than other methods, and that actual experiments are frequently subject to practical problems that undermine any claims to statistical or epistemic superiority.”
([Deaton 2010](#))

The charge is serious; the point is not to deny the contributions of economic experiments but to understand their limitations and to recognize that there are many other approaches in economics (natural or controlled experiments constitute only a small percentage of the empirical work in economics).

What are the limits of experiments? Natural experiments serve only to measure average first-order effects without measuring secondary effects (so-called general equilibrium effects) that can significantly change the results. A well-known example: the work of the Nobel laureate Heckman (1998) in the economics of education, which showed that, at least in some cases, these general equilibrium effects significantly affect the results of experiments.

Moreover, experiments are not able to take into account the heterogeneity of the effects on populations, to accurately measure the confidence intervals, etc. I'll leave these technical discussions to the article by [Deaton](#). It should also be noted that the power to generalize from natural experiments is often weak, as these experiments are by their nature not reproducible.

Let's take an example: Cahuc and Zylberberg use the study by Mathieu Chemin and Etienne Wasmer (2009) comparing the effects of the reduction of working time between Alsace and the whole of France to identify the impact on employment of an additional reduction of 20 minutes of working time. This work finds no impact from an additional 20-minute reduction in working time on employment. Can we conclude that the transition to 35 hours, a reduction in working time more than ten times as great, has no impact on employment? Could there be interaction effects between lowering social contributions and reducing working time? I don't think it can be said that simply reducing working time creates jobs, but it seems difficult to claim scientifically that the transition to 35 hours did not create jobs based on the studies cited (the

authors also draw on the example of Quebec, where the reduction was much greater).

The economist uses data in much more diverse ways than presented by Cahuc and Zylberberg. The book does not discuss laboratory experiments conducted in economics (see Levitt and List, 2007). Further, the relationship of economics to data is undergoing change as digital distribution creates vast access to data ("big data" in short). Econometric techniques will in all likelihood make more intense use of structural econometrics. In a recent work (Challe et al., 2016), we develop, for example, a framework for using both microeconomic and macroeconomic data to measure the impact of the great recession in the US. Finally, there has been a renewal of economic history and long-series studies. The work of Thomas Piketty is an example that has not gone unnoticed. Other work, including on financial instability (especially that by Moritz Schularik and Alan M. Taylor), also uses long time periods to enhance intelligibility. In short, the relationship of data to economics involves multiple methods that can yield conflicting results.

This is no mere detail: the scientific approach of the book is reductive. The book by Zylberberg Cahuc advances a faith in the knowledge drawn from natural experiments that I don't believe has a consensus in economics.

2) How to sidestep major questions

Here is a concrete illustration of the problem with this approach. The authors render a severe verdict on France's CICE tax credit (the government's reduction of employer social charges on up to 2.5 times the minimum wage, the SMIC). The main argument is that it is well known that reducing charges in the neighbourhood of the SMIC has a much bigger impact on employment than for higher wage levels. This last point is true – but the authors are sidestepping the real issue. What is it?

The early years of the euro have seen an unprecedented divergence in labour costs and inflation between European countries. Up to the 1990s, these differences were handled over the years by devaluations / revaluations. But the single currency has made this no longer possible. The question facing economists looking at this situation is whether the euro zone can survive such misalignments (see the recent position of Stiglitz on this subject). The discussion has been focused on establishing internal devaluations in overvalued European countries and boosting wages in undervalued countries. To this end, Germany established a minimum wage, some countries cut the salaries of civil servants, while others lowered their social contributions (the CICE tax credit in France), in the knowledge that other fiscal tools are also possible (see Emmanuel Farhi, Gita Gopinath and Oleg Itskhoki, 2013). The crucial question is therefore: 1) Is an internal devaluation necessary in France, and if so how much? 2) And how could a non-recessionary internal devaluation be implemented without increasing inequality?

So there is clearly a problem if one answers these questions based on the impact of reductions of social charges near the SMIC wage level. This shows the danger of basing oneself solely on results measurable by experiments: it neglects key issues that cannot be decided by this method.

3) The problem of “Keynesianism”

The authors claim that Keynesianism provides fertile soil for negationism even while stating in the book that Keynes' recipes sometimes work, but not all the time, which any economist would acknowledge. In the absence of clarification, these remarks become problematic. Indeed, recent years (following the 2008 subprime crisis) have witnessed a return of Keynesian approaches, as can be seen in recent publications. I would go so far as to say that we are living in a Keynesian moment, with great financial instability and massive macroeconomic imbalances (Ragot, 2016).

What then is Keynesianism? (It is not, of course, fiscal irresponsibility with ever greater public debt). It is the claim that price movements do not always allow markets to operate normally. Prices move slowly, wages are downwardly rigid, nominal interest rates cannot be very negative, etc. Because of all this, there are demand externalities that justify public intervention to stabilize the economy. The French debate generates concepts like “Keynesianism” and “liberalism” that have no real meaning in economic science. It is the role of the scientist to avoid false debates, not to perpetuate them.

4) Should we listen only to researchers publishing in the top journals?

The public debate differs greatly from the scientific debate in both purpose and form. Cahuc and Zylberberg want to import the hierarchy of academic debate into the public debate. This won't work.

There will always be a need for non-academic economists to discuss economic issues. The economic situation raises problems where there is no academic consensus. The business press is full of advice from bank economists, markets, institutions and trade unions, all of whom have legitimate, though non-academic, points of view. Newspapers like *Alternatives Economiques*, quoted by Cahuc and Zylberberg, present their views, as does the *Financial Times*, which has a mix of genres. Economists without formal academic credentials play a legitimate role in this debate, even if their opinions differ from those of other researchers with longer CVs.

These contradictions are concretely lived at the OFCE, whose mission is to contribute to the public debate with academic rigor. This is a very difficult exercise; it requires knowledge of the data, the legal framework, and the academic literature produced by institutions such as the Treasury, the OECD, the IMF, and the European Commission. Knowledge of the

economic literature is essential, but it is far from sufficient to make a useful contribution to the public debate.

The willingness of economists to contribute to the public debate was exemplified in the various petitions around the El Khomry law. These petitions widely debated the effect of redundancy costs on hiring and the form of the employment contract, but not the overturning of norms (a subject that to my knowledge is impossible to evaluate rigorously) – even though this is at the heart of the debate between the government and the trade unions! It is not certain that the idea of a consensus among economists will emerge strengthened by this episode.

5) When a consensus exists in economics, do we have to listen to it?

The consensus before the subprime crisis was that financialization and securitization were factors promoting economic stabilization, because of risk allocation, etc. Microeconomic studies confirmed these intuitions, because they failed to capture the real source of financial instability, which was the correlation of risks in investor portfolios. We now know that the consensus was wrong. Some economists outside the consensus, such as Roubini or Aglietta, and some economics journalists such as *The Economist*, warned of the destabilizing effects of finance, but they were outside the consensus.

Policy (and the public debate) is forced to ask: what will happen if the consensus is wrong? It has to manage all the risks – that's its responsibility. The consensus view among economists is frequently not very informative about the diversity of viewpoints and the risks involved. The public voice of economists outside the consensus is necessary and useful. For example, the Nobel Prize in Economics was awarded to Eugene Fama and Robert Schiller, who both studied financial economics. The first asserts that financial markets are efficient, and the second that financial markets generate

excessive volatility. Newspapers carry visions outside the consensus, such as *Alternatives Economiques* in France (at least it's in the title). These publications are useful to public discussion, precisely because of their openness to debate.

In science, the diversity of methods and knowledge about methodology outside the consensus enrich the debate. For the same reason, I tended to be against the creation of a new section of heterodox economists, supported by the French association of political economists (AFEP), because I see an intellectual cost to the segmentation of the world of economists. For the same reason, giving a consensus among economists the status of truth (Cahuc, Zylberberg, p. 185) is troublesome, because it ignores the contributions of the "minority" effort.

6) "Economic negationism: radicalization of the discourse

The authors castigate ideological criticisms of economics that are unfamiliar with the results or even the practice of economists. The science of economics has strong political implications, and is therefore always attacked when generates disturbing results. Some criticisms lower the intellectual debate to the level of personal insults. A defence of the integrity of economists is welcome, but it requires real learning and modesty to explain what is known and what is not known.

On reading the book by Cahuc and Zylberberg, it seems that the authors take up the arms of their opponents: two camps are defined (real science and deniers), doubts are planted about the intellectual honesty of pseudo-scientists outside the consensus, we proceed by amalgamation, by mixing intellectuals (Sartre) and academic economists. The very title of the book proceeds from great violence. This book is on a slippery slope in the intellectual debate that is heading towards a caricature of debate and verbal abuse. Every economist

involved in the public debate has already been insulted by people who disagree with the results presented for purely ideological reasons. Insults need to be fought, but not by suggesting that debate can be avoided due to one's academic status.

The debate in England on Brexit showed how economists and experts were rejected because of their perceived arrogance. I'm not sure that the scientific position of the book offers a solution to these developments in the public debate. To quote Angus Deaton once again, in a recent interview he did with the newspaper *Le Monde*:

"To believe that we have all the data is singularly lacking in humility. ... There is certainly a consensus in economics, but its scope is much narrower than economists think."

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Italy and the labour market: improvement, with caveats

By Céline Antonin

Since early 2015, the renewal of growth in Italy, the implementation of Act II of Matteo Renzi's Jobs Act, and the reduction in business charges have undeniably contributed to the improvement on the country's jobs front. Dynamic job creation, particularly with permanent (CDI) contracts, and an increase in the labour force, could give the impression that (partial) liberalization of Italy's labour market has resolved the structural weaknesses it has been facing. Nevertheless, in the first half of 2016, the creation of permanent jobs has severely dried up, and what is driving growth in employment now is an increase in fixed-term (CDD) contracts. Moreover,

stagnating labour productivity has accompanied more employment-yielding growth, particularly in the services sector. So in the absence of further action to address Italy's structural weaknesses, the upturn in the labour market may not last.

A brief review of recent labour market measures

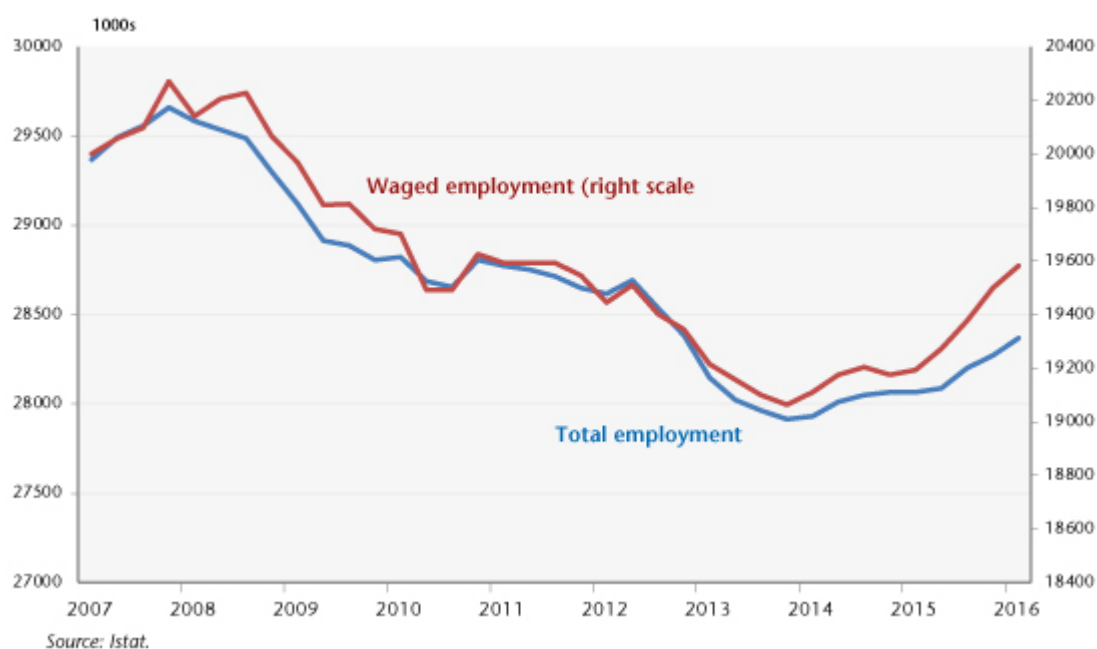
The Jobs Act is a continuation of a series of recent measures put in place since 2012 that are intended to create a more flexible labour market (see [C. Antonin, Matteo Renzi's Jobs Act: A very guarded optimism](#)). In Act I, the Jobs Act led to extending the duration of fixed-term contracts from 12 to 36 months, eliminating waiting periods and allowing more renewal periods, while limiting the proportion of fixed-term contracts within a given company. Act II introduced a new type of permanent contract, with greater protection and severance pay increases in line with seniority. It also abolished the misuse of *contratti di collaborazione*, precarious work contracts often used to disguise an employment relationship. These were to be transformed into employment contracts from 1 January 2016 (1 January 2017 for the public administration).

Furthermore, Italy has opted for cutting the taxation of labour: in 2015, the wage share of the IRAP (regional tax on productive activities) for employees on permanent contracts was removed. Above all, the 2015 Finance Act abolished social security contributions for 3 years on the new form of permanent contracts with greater protection, up to a limit of 8,060 euros per year for new hires between 1 January and 31 December 2015 who had not been on permanent contracts in the six months preceding their employment. The total cost to the budget was 1.8 billion euros. The programme was partially extended in 2016: companies taking on employees on the new permanent contracts in 2016 will be exempted from 40% of their social contributions for 2 years, and the cap on the exemption from contributions was reduced to 3,250 euros per employee.

A sharp increase in the number of jobs created, but stagnation in the creation of permanent jobs in 2016 ...

Since the beginning of 2015, the number of jobs grew strongly in Italy (Figure 1), but still falls far short of the pre-crisis level: between the first quarter of 2015 and the first quarter of 2016, the number of jobs grew by 304,000 (+391,000 permanent jobs).

Figure 1. Waged employment and total employment



A breakdown of these figures (Table 1) reveals a major difference between 2015 and the first half of 2016: the number of new CDI jobs exploded in 2015 (+281,000 between January and December 2015), before drying up in the first half of 2016 (-18,000 from January to June 2016). In 2015, the dramatic increase in the number of CDI contracts is partly explained by the replacement of precarious jobs by permanent jobs with progressive guarantees. Thus, of the 2.0 million CDI jobs created in 2015, there were 1.4 million new CDIs and 575,000 fixed-term (CDD) contracts converted into CDIs (source: INPS). 60.8% of these new contracts benefited from the exemption from social security contributions. However, the number of new CDI contracts dropped by 33% in the first half of 2016 compared to the first half of 2015, as a result of the reduced creation of

CDIs *ex nihilo* and a sharp fall in the conversion of CDDs into CDIs (-37%). There was nevertheless a sharp increase in the number of the self-employed in 2016, after two consecutive years of decline.

Table 1. Creation of jobs by category (flows)

1000s of jobs

	Jan-Dec 2015	Jan-Jun 2015	Jan-Jun 2016
Waged jobs	316	194	61
In CDI	281	143	-18
In CDD	35	51	79
Self-employed	-135	-80	126
Total employment	181	114	187

Source : Istat, Author's calculations.

Thus, the zeal for CDIs mainly occurred in 2015, before withering in 2016. One of the reasons is the following: **the reduction in social contributions for new hires on permanent contracts had a stronger impact than the Jobs Act itself.** In fact, the reduction in social contributions applied only to contracts concluded in 2015. These were renewed for 2016, but on a much more limited scale (two years compared with three, with the cap on the exemption from payroll taxes cut by more than half), which may well explain the decline in enthusiasm. Moreover, an anticipation effect can be seen for the month of December 2015 (Table 2), with a steep increase in the number of CDIs fully exempt (they more than quadrupled compared to the average of the preceding eleven months). In the first half of 2016, there were on average 42,000 people hired per month who benefited from the two-year exemption on contributions, or 31% of total permanent CDI contracts^[1], compared with 128,000 in 2015 (taking into account December). In 2015, the exempt contracts accounted for 61% of the total.

Table 2. New CDIs by category (exempt from charges or not)

In monthly average

	Average Jan-Nov 2015	Dec. 2015	Average Jan-Jun 2016
New exempt CDIs (a)	78 324	248 919	32 802
Converted from CDD into exempt CDIs (b)	27 921	130 324	9 205
Total CDIs exempt (a+b)	106 245	379 243	42 008
Total CDIs created	186 495	450 186	133 532
% CDIs exempt of total CDIs	57 %	84 %	31 %

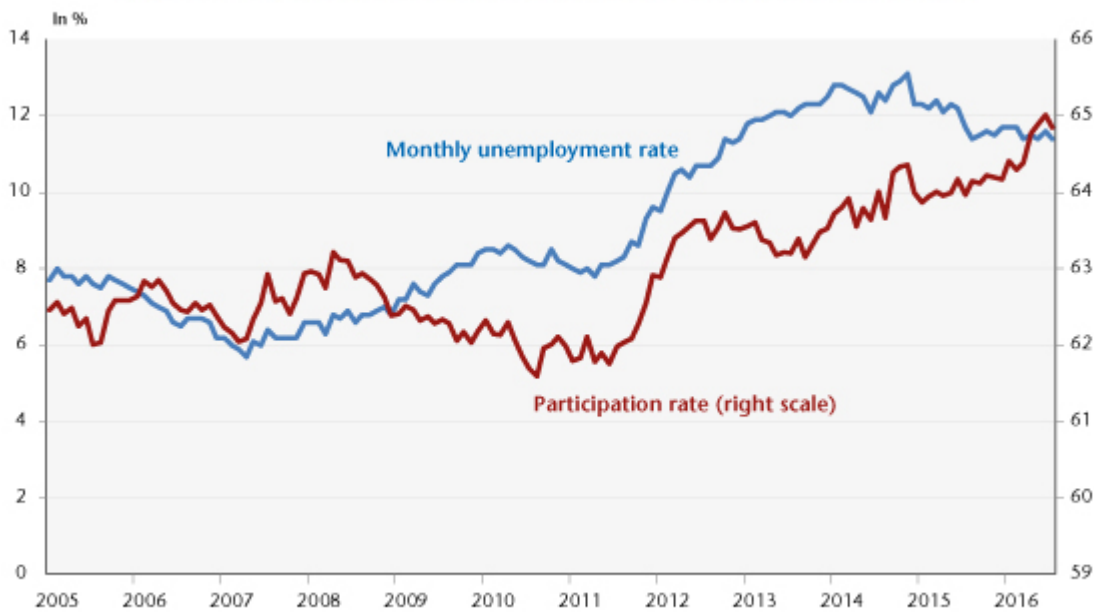
Note: The month of December was considered separately due to the sharp increase in the number of CDIs signed in that period.
Source: INPS, author's calculations.

... but stagnation in the number of jobless due to the growth in the workforce ...

Despite the dynamic jobs market, unemployment has stagnated in Italy since mid-2015 at a level of 11.6% (Figure 2). This paradox is explained by the increase in the active population: between July 2015 and July 2016, the workforce expanded by 307,000 people. Several phenomena are behind this:

1. The pension reform, which has led to seniors staying in their jobs;
2. A “flexion” or bending effect: with the return of growth and the improvement in the labour market, discouraged workers have begun looking for jobs again;
3. Immigration: positive net migration has had an impact on the labour market. The share of foreigners in Italy’s labour force rose from 10.7% to 11.1% between first quarter 2014 and first quarter 2016.

Figure 2. Unemployment rate and participation rate, 2005-June 2016



Source: Istat.

In conclusion, although it is not reflected in the unemployment figures, there has been an undeniable improvement in Italy's labour market, with a great deal of job creation and marked growth in the workforce. This improvement is attributable not just to the Jobs Act, but to three combined factors: 1) the return of growth since 2015, driven by the ultra-accommodative policy of the European Central Bank, less fiscal austerity and falling oil prices; 2) the reduction in labour taxes introduced in 2015 and extended in part in 2016; and 3) the implementation of the Jobs Act. In the light of Table 2, it can also be assumed that the reduction of business social charges had a stronger impact than the Jobs Act per se.

After the upturn in 2015, the figures for the first half of 2016 call for caution. The drying up of the creation of permanent jobs in 2016 shows that the Renzi reform did not resolve the underlying problem, namely the structural weaknesses of Italy's labour market, in particular labour productivity. To restore growth and employment, Italy really needs to address the issue of structural reform, including the poor level of innovation, research and development, the low level of competitiveness and the undercapitalization of its SMEs.

[1] including the conversion of CDD contracts into CDIs.

François Hollande's five years in office: Stagnation or recovery?

By OFCE

The five-year term of French President Francois Hollande has been marked by serious economic difficulties, but also by some signs of improvement in the last year of his mandate. Overall, France experienced low growth from 2012 to 2014, mainly due to the fiscal consolidation policy, with moderate growth after that (see: [OFCE, Policy Brief, no2, September 5th, 2016](#)).

The scale of the fiscal shock at the start of Hollande's mandate, when the government underestimated the negative impact on growth, proved to be incompatible with a fall in unemployment during the first half of the mandate.

The effort to improve France's public finances involved a major fiscal adjustment, even though the target of a 3% public deficit was put off till the end of Hollande's term in office. According to the calculations of the European Commission, France's structural balance (i.e. the balance adjusted for cyclical effects) will have improved by 2.5 points over the 2012-2016 period. This effort did not however prevent the public debt from reaching a historic peak and from diverging significantly from the level in Germany.

Fiscal consolidation in France and in Europe had a marked negative impact, amounting to 0.8 point per year on average between 2012 and 2017. The simultaneity of the austerity policies enacted in Europe amplified their recessionary impact by depressing domestic demand, but also external demand.

The economic policy of the governments led by Ayrault and Valls was initially marked by a significant period of rising taxation, on both companies and households, followed by a shift towards a supply policy in 2014. This policy, embodied in the Responsibility Pact and the CICE tax credit, is bearing fruit late in Hollande's term, as business margins improve, although household purchasing power and short-term growth have been hurt.

After a period marked by a significant downturn in business margins, they picked up over the first four years of the five-year term by the equivalent of 1 point in added value thanks to tax measures, and one additional point due to lower oil prices. The profit margin in industry even reached a level comparable to the historical records of the early 2000s.

Based on our forecasts for the five-year mandate as a whole, ILO-measured unemployment will have increased by about 100,000 people, despite the creation of 720,000 jobs, due to the lack of growth, combined with an increase in the labour force.

What is the initial assessment of Germany's

minimum wage?

By Odile Chagny (IRES) and Sabine Le Bayon

A year and a half after introducing a statutory minimum wage, the German Commission in charge of adjusting it every two years decided on 28 June to raise it by 4%. On 1 January 2017, the minimum will thus rise from 8.50 to 8.84 euros per hour. This note offers an initial assessment of the implementation of the minimum wage in Germany. We point out that the minimum wage has had some of the positive effects that were expected, helping to reduce wage disparities between the old Länder (former West Germany) and the new Länder (former East Germany), and between more skilled and less skilled workers. By establishing recognition of the wage value of Germany's "mini-jobs", the minimum wage has made these marginal forms of employment less attractive for employers, representing a major rupture for the welfare state. But the minimum wage has also had some less fortunate results. Due probably to the flattening of pay scales at the minimum wage level, certain categories of employees in former West Germany seem to have suffered from the wage restraint that was imposed on them just before the introduction of the minimum wage, as companies limited the impact of the minimum wage on their total salary costs.

Unlike in France, there are no rules requiring an automatic annual revision of the minimum wage in Germany. It is adjusted only every two years upon a decision by the Commission. The decision taken on 28 June 2016 will take effect on 1 January 2017. There will then not be another revision until 2019, based on a decision taken in June 2018.

At first glance, the revaluation is fairly significant (+4% on 1 January 2017, i.e. a 2% annual rate) when compared to recent revisions of the minimum wage in France, where the SMIC, as it is called, rose by 1% per year over the last four years. This

is due to the fact that, in accordance with the law establishing the minimum wage, the revaluation that takes place in Germany is made in light of increases concluded under collective bargaining agreements[\[1\]](#), thereby ensuring equivalent gains in purchasing power for all employees covered by a collective agreement. Since increases in negotiated wages have been relatively high since 2012 (+2.7% annual rate for the basic hourly wage index negotiated between 2011 and 2015, against +1.6% for the basic monthly wage in France over this same period), this automatically affects the minimum wage[\[2\]](#).

However, the level of the minimum wage is low and it is likely to remain so. It is much lower than the current level in France (9.67 euros since January 2016). According to the national accounts, this represented 34% of the average wage in 2015 (47% in France) and 48% of the median wage of full-time employees in 2014 (61% in France), which puts Germany in the lower range among the major European economies[\[3\]](#).

Nevertheless, even though set at a relatively low level, much was expected of the minimum wage's ability to correct the very sharp wage segmentation in Germany[\[4\]](#), which points to the need to pay particular attention to the categories of employees who benefited from it.

Between 4 and 5.8 million employees were potentially affected by the introduction of the minimum wage in 2015

Somewhat paradoxically, it is difficult to get a clear picture of the actual number of employees who received less than 8.50 euros at the time the minimum wage was introduced. The most recent estimates vary between 4 million according to [Destatis](#) and a range of 4.8 to 5.4 million according to the [WSI Institute](#) (between 10% and 16% of the total workforce)[\[5\]](#). This is because the law establishing the minimum wage left some uncertainty about its practical application. For instance, the law stipulates that the minimum wage of 8.5 euros per hour applies while taking into account the actual

working time (knowing that there is no statutory work week in Germany), and it gives no precise definition of the pay elements to be taken into account (year-end bonuses, 13th month bonus, miscellaneous bonuses). On this point, following an employee's complaint, on 25 May 2016 Germany's Federal Labour Court ruled that a bonus previously paid once a year can be included in the calculation of the minimum wage when it is henceforth paid fractionally each month and this has been approved by a company agreement. This automatically leads to decreasing the number of potential beneficiaries.

While calculating the number of people receiving less than 8.50 euros is tricky, there is nevertheless relatively good agreement on estimates indicating that employees holding mini-jobs and employees in the new Länder just prior to the introduction of the minimum wage were the main ones affected. Thus, according to Destatis, 55% of the employees concerned were "mini-jobbers", mainly in western Germany where they are the most numerous. In eastern Germany, the proportion of people earning less than 8.50 euros was twice as high as in western Germany (just over 20% of employees, around 10% in the old Länder). Not surprisingly, more than 80% of those working for less than 8.50 euros were in companies not covered by collective bargaining agreements, with twice as many women as men. Finally, catering and retail were the trades most affected, as approximately 50% and 30% of their employees earned less than 8.50 euros, according to the WSI in 2014.

1.9 million people were on the minimum wage in April 2015 according to Destatis

The minimum wage has partly fulfilled its mission by ensuring a "decent" wage for society's most vulnerable people. If we stick to the [Destatis](#) estimate, while 4 million people received a wage of less than 8.50 euros in April 2014, "only" 1 million were in this situation a year later. Moreover, among the 1.9 million employees earning 8.5 euros in April 2015, the great majority of whom were undoubtedly earning less before

the entry into force of the minimum wage, 91% worked in companies not covered by a collective agreement and 56% held mini-jobs.

A significant increase in wages in the new Länder and for mini-jobs

It is obviously too early to have microeconomic surveys with accurate information about changes in the salaries of those affected by the introduction of the minimum wage, so the main source used is the quarterly wage survey [6], which provides data on different job categories (conventional jobs, i.e. subject to social security contributions, and mini-jobs) and skills levels.

Based on this survey, it is clear that the implementation of the minimum wage undoubtedly led to raising the monthly wages of certain categories of employees in 2015: for conventional jobs [7] in the new Länder and for mini-jobs in western Germany (Table 1).

Hourly wages in eastern Germany rose especially quickly in 2015 for unskilled (+8.6%) and semi-skilled employees (+5.8%) compared to those with average qualifications (+4%), helping to reduce wage inequality in these German states. However, no such trend could be seen in western Germany regardless of the skills level.

Table 1. Changes in gross total monthly wages (incl. Bonuses)

	Conventional jobs (full time and part time)		Mini-jobs	
	Ex-West Ger.	Ex-East Ger.	Ex-West Ger.	Ex-East Ger.
2011	3.1	2.3	1.8	7.6
2012	2.5	1.0	1.0	7.2
2013	1.0	1.7	5.6*	4.2
2014	1.5	1.9	1.4	6.7
2015	1.6	3.4	3.2	5.7

* This increase is due to the revision of the monthly cap on pay for mini-jobs from 400 to 450 euros.
Source: Destatis, Quarterly wage survey; authors' calculations.

Questioning the logic of mini-jobs

Given that 60% of employees holding mini-jobs received less than 8.5 euros per hour in 2014, one would expect a more marked acceleration of average earnings in this category of employees. The most likely reason why this was not the case is that the implementation of the minimum wage has de facto made these jobs less attractive for employers and led to a reduction in those workforce numbers and probably in the hours worked.

While mini-jobs are characterized by an absence of employee social security contributions and the acquisition of fewer employee rights, they are nonetheless subject to higher levies paid by employers (mainly social contributions and flat-rate tax on income) than in the case of a conventional job. As a result, the attraction for employers prior to the introduction of the minimum wage was due mainly to the flexibility offered by this type of employment as well as to the possibility of low hourly wages[\[8\]](#), as there was no limitation on working hours (the only constraint being the monthly ceiling of 450 euros).

However, by including mini-jobs within the coverage of the minimum wage, the law has made them much less financially attractive to employers because their hourly cost now exceeds that of a conventional job, including a midi-job[\[9\]](#) (see Table 2), with the number of hours implicitly capped (at 12 hours per week given the monthly ceiling of 450 euros).[\[10\]](#)

We therefore expect a reduction in the number of these jobs through simple destruction or reclassification as conventional jobs [\[11\]](#). There has in fact been a sharp decrease in the number of mini-jobs since the beginning of 2015, especially mini-jobs that are the worker's main activity, and an acceleration in the creation of conventional part-time jobs (graphic). The conversion into conventional jobs seems clear in the hotel, catering and retail trades, where mini-jobs had

been prevalent and where conventional job creation has been particularly important. But although the conversion of mini-jobs into conventional jobs has been relatively high, it has not been massive, which is probably due both to a reduction in the actual hours worked so as to stay under the ceiling for mini-jobs (which for the employee has reduced the impact of a higher hourly wage) and to incorrect documentation of working time by the employer, with an underestimation of the hours worked [12]. The assurance that the legal conditions governing these jobs will be applied is even less certain given that the employee too may have a financial interest in non-compliance with the minimum wage, by accepting an underestimation of the number of hours so that their monthly wage remains below the 450 euro ceiling. The employee thus receives a net wage equal to the gross wage, which is not the case if the wage exceeds 450 euros and he occupies a midi-job, since the rate of the employee social contribution is then progressive and he becomes subject to conventional taxation (which depends on the employee's family characteristics).

Table 2. Charges for a conventional job subject to social contributions and a mini-job before and after the introduction of the minimum wage

	Before the introduction of the minimum wage, a low wage cost for a mini-job enabled the employer to limit the cost of labour	After the introduction of the minimum wage, the employer trades off between:	
		Maintaining the mini-job (higher employer cost)	Converting it to a conventional job(1) (same employer cost as previously)
Gross wage (€/hour)	7.8	8.5	8.5
Employer social contributions (€/hour)	2.3	2.6	1.6
Labour cost for the employer (€/hour)	10.2	11.1	10.1
Employee social contributions (€/hour)	0.0	0.0	1.7 ²
Net wage (€/hour)	7.8	8,5	6.8

(1) Case of a mini-job with a monthly salary of 451 euros, i.e. just above the ceiling for mini-jobs, for a working time of a little more than 12 hours. The employee social contributions are then 10.9%.

(2) Case of an employee with a child. Otherwise, the dependency contribution rate (taux de cotisation dépendance) of an employee subject to social contributions is increased by 0.25%.

Mini-job :

Employer portion: 30% (= 13% health + 15% pension + 2% flat-rate income tax).

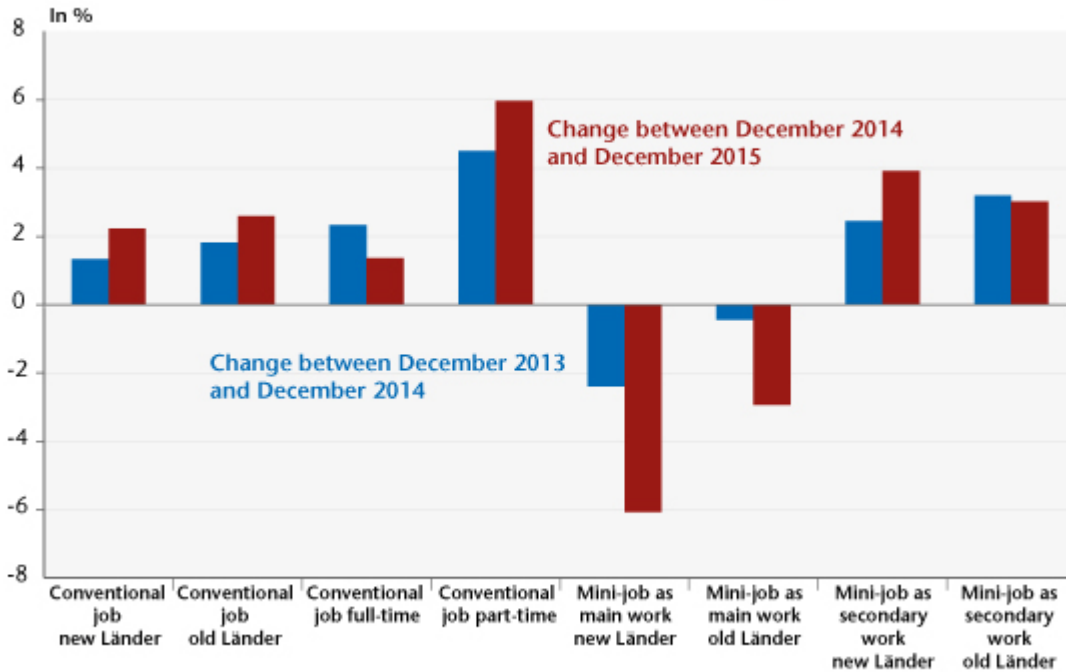
Conventional job, subject to social contributions:

Employer portion: 19.325% (=7.3% health + 9.3% pension + 1.5% unemployment + 1.175% dependence);

Employee portion: 20.425% (=8.4% health +9.35% pension + 1.5% unemployment + 1.175% dependence).

Source: German legislation.

Figure. Change in employment by categories, before and after the introduction of the minimum wage



Source: Job center.

In the spring of 2015, 1 million people were still being paid below the minimum wage

The magnitude of the workforce still earning less than 8.5 euros after the implementation of the minimum wage raises several questions. This could of course be explained by the implementation deadlines and by the fact that various exemptions are allowed (long-term unemployed for the first 6 months of employment, employees in sectors providing for a transitional adaptation period – newspaper delivery, temping, the meat industry, hairdressing, agriculture, textile, laundry).

But we could also consider the actual capacity to implement the minimum wage in the “grey areas” of the collective bargaining system [\[13\]](#). Among these 1 million workers, almost 80% were employed in companies not covered by collective agreements and 47% held mini-jobs.

This highlights the importance of official controls to ensure

compliance, especially as the methods of calculating the hourly wage as defined by law and jurisprudence are problematic[14]. Parliament has provided for a requirement to report working hours, but this does not apply to all employees. Of course, for all mini-jobs and for those below a certain salary threshold[15] in certain sectors particularly affected by illegal work (construction, catering, passenger transport, logistics, industrial cleaning, meat industry, etc.), the employer is now required to record the start and end of each work day and the duration of work and keep these documents for two years to avoid circumvention of the law through unpaid overtime. But there are not many inspections, and the frequency even fell by about one-third in 2015 from 2014, even as the number of people affected by the minimum wage exploded.

A fairly moderate impact on the average wage of conventional jobs

More unexpectedly, it seems that some companies anticipated the coming into force of the minimum wage by slowing increases in unskilled wages in the months preceding the law's implementation (recall that parliamentary elections took place in October 2013, and the minimum wage took effect in January 2015). The year 2014 was indeed characterized by a sharp halt to wage hikes for less skilled workers, which occurred in both the old and new Länder, a phenomenon that cannot be explained by objective factors related to the economic situation. This means, surprisingly, that certain categories of employees would have received higher wage increases in the absence of the introduction of the minimum wage.

To assess this, we simulated the hourly wages in 2014 and 2015 for conventional jobs on the basis of the 2010-2013 trend (i.e. before the minimum wage was officially incorporated into the coalition agreement of autumn 2013), and we compared the wage observed at end 2015 with the one simulated by type of qualifications and Länder in order to see which employees were

overall losers or winners (Table 3).

While in the new Länder on average all categories of employees benefited from the implementation of the minimum wage, with a diffusion effect from the minimum wage on wages immediately above 8.50 euros (and a revaluation of all salary scales), it seems that in the old Länder the least skilled categories suffered from its introduction. In other words, those whose salary was slightly higher than the minimum wage before the law took effect would have enjoyed a higher hourly wage in early 2016 on the basis of past trends!

This braking effect is such that at the level of Germany as a whole, and given the weight of the old Länder in the workforce (81% of conventional waged jobs), the unskilled and semi-skilled have therefore generally suffered from the introduction of the minimum wage, a situation that is somewhat paradoxical and which most observers have failed to highlight, focusing instead on the analysis of developments following the minimum wage's introduction.

Table 3. Difference between the gross hourly wage (excl. Bonuses) for conventional jobs recorded at end 2015 and wage simulated on the basis of the 2010-2013 trend 2010-2013¹

	Total ²	Managers	Experienced skilled	Skilled	Semi-skilled	Unskilled
Germany	0.8	0.9	1.4	0.1	-0.3	-1.1
New Länder	2.7	2.9	2.6	2.9	2.0	3.8
Old Länder	0.7	0.7	1.0	-0.4	-0.8	-1.9

1. The wage is simulated from Q1 2014 based on the trend observed between Q4 2010 and Q4 2013. The difference between the wage seen in the last quarter of 2015 and the wage simulated on the basis of the past trend is shown in this table.

2. The total is the weighted sum of the different skills categories, based on the 2013 workforce.

Source: Destatis (Quarterly wage survey); authors' calculations.

If the stated objective of the law introducing a minimum wage in Germany was indeed achieved, namely, to end a situation where a significant number of employees were on extremely low wages, there are 1 million people who have yet to benefit, i.e. a quarter of the workforce who were potentially concerned. There is also evidence that many companies anticipated the introduction of the minimum wage in the year

before its introduction by making trade-offs in their wage policy in order to limit the impact on their costs. The result is that not all employees have been winners from the introduction of the minimum wage. What has taken place in Germany, especially in the old Länder, is a form of redistribution among unskilled workers between those who have benefited from the law [\[16\]](#) and those earning a little more than the minimum wage, who have experienced two years of wage restraint.

[\[1\]](#) For this initial reassessment, the Commission based itself on [changes in the negotiated hourly wages \(excluding bonuses\) between December 2014 and June 2016](#), which was 4%, including the retroactive effect of the latest collective agreement signed for the civil service.

[\[2\]](#) Like employee purchasing power, inflation rates in France and Germany have been very similar over the same period: +1.1% annual rate over the period 2011-2015 in Germany, 0.9% in France for the HICP.

[\[3\]](#) [M. Amlinger, R. Bispinck and T. Schulten, 2016 : "The German Minimum Wage: experiences and perspectives after one year", WSI Report No. 28e, 1/2016.](#)

[\[4\]](#) [O. Chagny and F. Lainé 2015: "Comment se comparent les salaires entre la France et l'Allemagne?", Note d'analyse no. 33, France Stratégie.](#)

[\[5\]](#) By removing the exceptions: trainees, apprentices and those under age 18.

[\[6\]](#) This was conducted among about 40,000 companies with more than 10 employees (5 in some sectors such as retail or catering to reflect the specific characteristics of these areas) in industry and the service sector.

[7] This observation holds whether one is interested in the total monthly pay (including bonuses) or the hourly wage excluding bonuses, with wage increases of respectively 3.4% and 4% in 2015.

[8] B. Lestrade, 2013: “Mini-jobs en Allemagne. Une forme de travail à temps partiel très répandue mais contestée”, *Revue française des affaires sociales*, 2013/4.

[9] For these contracts, which pay between 450 and 850 euros, the contribution rate for the employer is that of a conventional job, while the contribution rate for employees is progressive, ranging from 10.9% to 20.425% based on the salary.

[10] Note that the average working time in 2008 for these jobs was 12.8 hours per week ([D. Voss and C. Weinkopf, 2012, “Niedriglohnfalle Minijob”, WSI Mitteilungen 1/2012](#)).

[11] For a midi-job, if the employee works between 12 and 23 hours weekly, and in a conventional job more than 23 hours.

[12] The most common strategies for circumventing the law in terms of working time are: unpaid overtime, payment for a task without fixed working hours and poor calculation of the time worked (on-call time, etc.). For more, see [T. Schulten, 2014, “Umsetzung und Kontrolle von Mindestlöhnen”, *Arbeitspapiere* 49, GIB, November 2014](#).

[13] For more, see: [“Allemagne. L’introduction d’un salaire minimum légal : genèse et portée d’une rupture majeure”, O. Chagny and S. Le Bayon, *Chronique internationale de l’IRES*, no. 146, June 2014](#).