

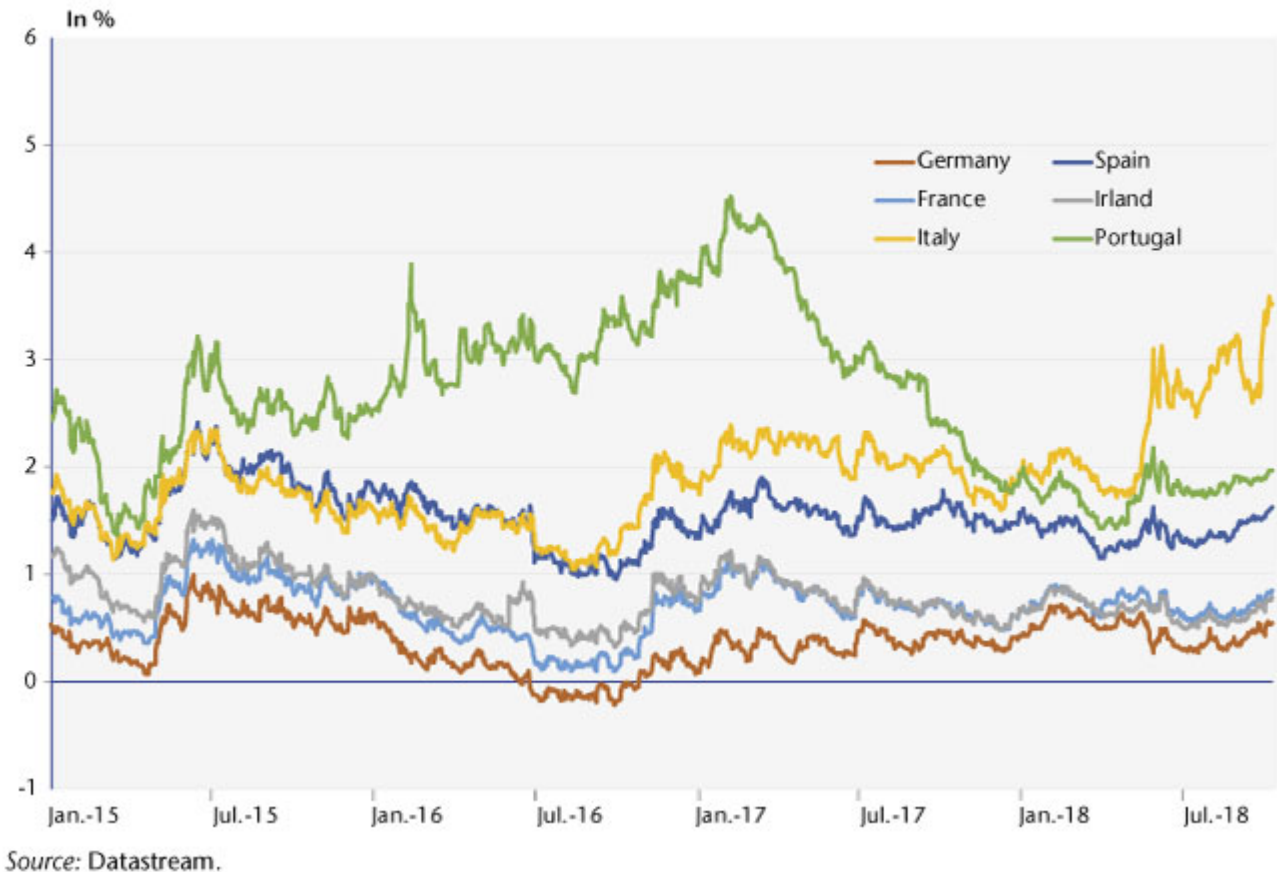
# Italy's debt: Is the bark worse than the bite?

By [Céline Antonin](#)

The spectre of a sovereign debt crisis in Italy is rattling the euro zone. Since Matteo Salvini and Luigi di Maio came to power, their headline-catching declarations on the budget have proliferated, demonstrating their desire to leave the European budgetary framework that advocates a return to an equilibrium based on precise rules[1]. Hence the announcement of a further deterioration in the budget when the update of the [Economic and Financial Document](#) was published at the end of September 2018 frayed nerves on the financial markets and triggered a further hike in bond rates. ([graphic](#)).

But should we really give in to panic? The crucial question is just how sustainable the Italian public debt really is. Looking up to 2020, the situation of the euro zone's third-largest economy is less dramatic than it might appear. Stabilizing interest rates at the level of end September 2018 would leave the public debt largely sustainable. It will decline in 2019, from 131.2% to 130.3% of GDP. Given our assumptions[2], only a very sharp, long-lasting rise in bond interest rates in excess of 5.6 points would lead to an increase in the public debt ratio. In other words, the bond rate would have to exceed the level reached at the peak of the 2011 sovereign debt crisis. Should such a situation occur, it's hard to believe that the ECB would not intervene to reassure the markets and avoid a contagion spreading through the euro area.

Figure. Interest rate on 10-year sovereign bonds



A

## very strong fiscal stimulus in 2019

Changes in the public debt ratio depend heavily on the assumptions adopted. The ratio varies with the general government balance, the GDP growth rate, the deflator, and the apparent interest rate on the public debt (see calculation formula below).

In budgetary matters, despite their differing views, the two parties making up the Italian government (La Ligue and the 5 Star Movement) seem to agree on at least one point: the need to loosen budget constraints and boost demand. In any case the government contract, published in May 2018, was unequivocal. It announced a fiscal shock amounting to approximately 97 billion euros over 5 years, or 5.6% of GDP over the five-year period. But although the measures have been gradually reduced, the draft presented to the Italian Parliament plans for a public deficit of 2.4% of GDP for 2019, far from the original target of 0.8% set in the Stability and Growth Pact forwarded

to the European Commission on 26 April 2018. We assume that the 2019 budget will be adopted by the Parliament, and that the deficit will indeed be 2.4% of GDP. We therefore anticipate a positive fiscal impulse of 0.7 GDP point in 2019. This stimulus breaks down as follows:

- A decrease in compulsory taxation of 5 billion, or 0.3 GDP point, linked to the gradual introduction of the “flat tax” of 15% for SMEs, a measure supported by the League. The extension of the flat tax to all businesses and households was postponed until later in the mandate, without further clarification;

- An increase in public spending, calculated roughly at 7 billion euros, or 0.4 GDP point. Let’s first mention the flagship measure of the 5 Stars Movement, the introduction of a citizens’ pension (in January 2019) and a citizens’ income (in April 2019), for an estimated total amount of 10 billion euros. The citizens’ pension will supplement the pension of all pensioners, bringing it to 780 euros per month. For the working population, the principle is similar – supplementing the salary up to 780 euros – but subject to conditions: recipients will have to take part in training and accept at least one of the first three job offers that are presented to them by the Job Centre. The revision of the pension reform, which provides for the “rule of 100”, will also allow retirement when the sum between a person’s age and the years worked reaches 100, in certain conditions. This should cost 7 billion euros in 2019. Finally, an investment fund of 50 billion euros is planned over 5 years; we are expecting an increase in public investment of 4 billion euros in 2019. To finance the spending increase without pushing the public deficit above 2.4%, the government will have to save 14 billion euros, equivalent to 0.8 GDP point. For the moment, these measures are very imprecise (further rationalization of spending and tax amnesty measures).

For 2020, the Italian government has declared that the public deficit will fall to 2.1% of GDP. However, to arrive at this

figure, given our growth assumptions, would require tightening up fiscal policy somewhat, which is not very credible. We therefore assume a quasi-neutral fiscal policy in 2020, which means that the deficit would remain at 2.4% of GDP.

With a very positive fiscal stimulus in 2019, annual growth (1.1%) should be higher than in 2018. This acceleration is more visible year-on-year: growth in Q4 of 2019 will be 1.6%, compared with 0.6% in Q4 of 2018. Although low, this level is nevertheless higher than the potential growth rate (0.3%) in 2019 and 2020. The output gap is in fact still large and leads to 0.4 GDP point of catch-up per year. Spontaneous growth<sup>[3]</sup> thus amounts to 0.7 GDP point in 2019 and 2020. In addition, we anticipate a much stronger fiscal impulse in 2019 (0.7 GDP point) than in 2020 (0.1 GDP point). Other shocks, such as oil prices or price competitiveness, will be more positive or less negative in 2020 than in 2019.

Changes in the public debt ratio also depend on developments in the GDP deflator. However, prices should remain stable in 2019 and 2020, due in particular to wage moderation. Thus, nominal growth should be around 2% in 2019 and 2020.

Finally, we assume that the interest rate on the debt will stay at the level of the beginning of October 2018. Given the maturity of the public debt (seven years), the rise in rates forecast for 2019 and 2020 will be very gradual.

### **Reducing the public debt up to 2020**

Under these assumptions, the public debt should decline continuously until 2020, falling from 131.2% of GDP in 2018 to 130.3% in 2019 and then to 129.5% in 2020 (table). In light of our assumptions, the public debt will fall in 2019 if the apparent interest rate remains below 3.5% of GDP, i.e. if the debt-service charge relative to GDP is less than 4.5%.

**Table. Changes in the public debt to GDP ratio based on our hypotheses**

	2017	2018	2019	2020
<b>Public debt /GDP (<math>d_t</math>)</b>	131.8%	131.2%	130.3%	129.5%
<b>Apparent interest rate on the debt (i)</b>	2.9%	2.7%	2.9%	3.0%
<b>GDP growth in value (g)</b>	2.2%	2.1%	2.3%	2.1%
<i>GDP growth in volume</i>	1.6%	1.0%	1.1%	1.0%
<i>GDP deflator</i>	0.6%	1.1%	1.2%	1.1%
<b>Primary deficit in % of GDP (<math>s_t</math>)</b>	1.5%	1.8%	1.5%	1.6%
<i>Public deficit in % of GDP</i>	-2.3%	-1.8%	-2.4%	-2.4%
<i>Debt-service charge in % of GDP</i>	3.8%	3.6%	3.8%	4.0%
<b>Projected public debt/GDP (<math>d_{t+1}</math>)</b>	131.2%	130.3%	129.5%	129.1%
<i>Apparent interest rate stabilizing the debt</i>	3.4%	3.4%	3.5%	3.3%
<i>Primary deficit stabilizing the debt</i>	0.9%	0.8%	0.8%	1.1%
<i>Public deficit stabilizing the debt</i>	-2.9%	-2.7%	-3.1%	-2.8%

Sources: AMECO, author's calculations..

Note : Changes in the public debt depend not only on the primary deficit, but also on the apparent interest rate and the growth rate, according to the formula:  $d_{t+1} = d_t \frac{(1+i)}{(1+g)} - s_t$  which  $g$  = growth rate of nominal GDP,  $I$  = apparent interest rate on the debt,  $s$  = primary public deficit / GDP,  $d$  = public debt / GDP.

Reading note: the public debt/GDP ratio in 2017 was 131.8% and should fall to 131.2% in 2018.

However, for the apparent interest rate to rise from 2.7% in 2018 to 3.5% in 2019, given the 7-year maturity on the debt, the interest rate charged by markets would have to rise by about 5.6 points on average over the year, for one year. While this scenario cannot be excluded, it seems certain that the ECB would intervene to allow Italy to refinance at lower cost and avoid contagion.

Still, even if interest rates do not reach this level, any additional rise in interest rates will further limit the Italian government's fiscal manoeuvring room, or it will lead to a larger-than-expected deficit. Also, the deficit forecast by the government is based on an optimistic assumption for GDP growth of 1.5% in 2019; if growth is weaker, the deficit could widen further, unsettling nerves on the market and among

investors and jeopardizing the sustainability of the debt.

[1] L. Clément-Wilz (2014), “Les mesures ‘anti-crise’ et la transformation des compétences de l’Union en matière économique” [“‘Anti-crisis’ measures and the transformation of the competences of the EU in economic matters”], *Revue de l’OFCE*, 103.

[2] For more information, see the forthcoming 2018-2020 forecast for the global economy, *Revue de l’OFCE*, (October 2018).

[3] Spontaneous growth for a given year is defined as the sum of potential growth and the closing of the output gap.

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# Brexit: Roads without exits?

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

The result of the referendum of 23 June 2016 in favour of leaving the European Union has led to a period of great economic and political uncertainty in the United Kingdom. It is also raising sensitive issues for the EU: for the first time, a country has chosen to leave the Union. At a time when populist parties are gaining momentum in several European countries, Euroscepticism is rising in others (Poland, Hungary, Czech Republic, Slovenia, Slovakia), and the migrant crisis is dividing the Member States, the EU-27 must negotiate Britain’s departure with the aim of not offering an attractive alternative to opponents of European integration. There can be no satisfactory end to the UK-EU negotiations, since the EU’s goal cannot be an agreement that is favourable to the UK, but, on the contrary, to make an example, to show that leaving the

EU has a substantial economic cost but no significant financial gain, that it does not give room for developing an alternative economic strategy.

According to the current timetable, the UK will exit the EU on 29 March 2019, two years after the official UK government announcement on 29 March 2017 of its departure from the EU. Negotiations with the EU officially started in April 2017.

So far, under the auspices of the European Commission and its chief negotiator, Michel Barnier, the EU-27 has maintained a firm and united position. This position has hardly given rise to democratic debates, either at the national level or European level. The partisans of more conciliatory approaches have not expressed themselves in the European Council or in Parliament for fear of being accused of breaking European unity.

The EU-27 are refusing to question, in any respect, the way that the EU is functioning to reach an agreement with the UK; they consider that the four freedoms of movement (goods, services, capital and persons) are inseparable; they are refusing to call into question the role of the European Court of Justice as the supreme tribunal; they are rejecting any effort by the UK to “cherry pick”, to choose the European programmes in which it will participate. At the same time, the EU-27 countries are seizing the opportunity to question the status of the City, Northern Ireland (for the Republic of Ireland) and Gibraltar (for Spain).

### **Difficult negotiations**

On 29 April 2017, the European Council adopted its negotiating positions and appointed Michel Barnier as chief negotiator. The British wanted to negotiate as a matter of priority the future partnership between the EU and the UK, but the EU-27 insisted that negotiations should focus first and foremost on three points: the rights of citizens, the financial settlement

for the separation, and the border between Ireland and Northern Ireland. The EU-27 has taken a hard line on each of these three points, and has refused to discuss the future partnership before these are settled, banning any bilateral discussions (between the UK and a member country) and any pre-negotiation between the UK and a third country on their future trade relations.

On 8 December 2017, an agreement was finally reached between the United Kingdom and the European Commission on the three initial points<sup>[1]</sup>; this agreement was ratified at the European Council meeting of 14-15 December<sup>[2]</sup>. However, strong ambiguities persist, especially on the question of Ireland.

The European Council accepted the British request for a transitional period, with this to end on 31 December 2020 (so as to coincide with the end of the current EU budgeting). Thus, from March 2019 to the end of 2020, the UK will have to respect all the obligations of the single market (including the four freedoms and the competence of the CJEU), even though it no longer has a voice in Brussels.

The EU-27 agreed to open negotiations on the transition period and the future partnership. These negotiations were to culminate at the European summit in October 2018 in an agreement setting out the conditions for withdrawal and the rules for the transition period while outlining in a political statement the future treaty determining the relations between the United Kingdom and the EU-27, so that the European and British authorities have time to examine and approve them before 30 March 2019.

However, both the EU-27 and the UK have proclaimed that “there is no agreement on anything until there is an agreement on everything”, meaning that the agreements on the three points as well as on the transition period are subject to agreement on the future partnership.



## **Negotiations for the British side**

The members of the government formed by Theresa May in July 2016 were divided on the terms for Brexit from the outset: on one side were supporters of a hard Brexit, including Boris Johnson, who was then in charge of foreign affairs, and David Davis, then tasked to negotiate the UK's departure from the EU; on the other side were members who favoured a compromise to limit Brexit's impact on the British economy, including Philip Hammond, Chancellor of the Exchequer. The proponents of a hard Brexit had argued during the campaign that leaving the EU would mean no more financial contributions to the EU, so the savings could be put to "better use" financing the UK health system; that the United Kingdom could turn to the outside world and freely sign trade agreements with non-EU countries, which would be beneficial for the UK economy; and that getting out of the shackles of European regulations would boost the economy. The hard Brexiteers argue against giving in to the EU-27's demands, even at the risk of leaving without an agreement. The goal is to get free of Europe's constraints and "regain control". For those in favour of a compromise with the EU, it is essential to avoid a no-deal Brexit – "going over the cliff" would be detrimental to British business and jobs. In recent months, it has been this camp that has gradually strengthened its positions within the government, leading Theresa May to ask the EU-27 for a transitional period during her Florence speech of September 2017, which also responded to the demands of British business representatives (including the Confederation of British Industrialists, the CBI). On 6 July 2018, Theresa May held a government meeting in the Prime Minister's Chequers residence to agree on British proposals on the future relationship between the United Kingdom and the European Union. The concessions made in recent months by the British government together with the Chequers proposals led David Davis and Boris Johnson to resign from the Cabinet on 8 July 2018.

On 12 July 2018, the British government published a White Paper on the future partnership[3]. It proposes a “principled and practical Brexit”[4]. This must “respect the result of the 2016 referendum and the decision of the UK public to take back control of the UK’s laws, borders and money”. It is about building a new relationship between the UK and the EU, “broader in scope” than the current relationship between the EU and any third country, taking into account the “deep history and close ties”.

The White Paper has four chapters: economic partnership, security partnership, cross-cutting and other cooperation, and institutional arrangements. As far as the economic partnership is concerned, the agreement must allow for a “broad and deep economic relationship with the rest of the EU”. The United Kingdom proposes the establishment of a free trade area for goods. This would allow British and European companies to maintain production chains and avoid border and customs controls. This free trade area would “meet the commitment” of maintaining the absence of a border between Northern Ireland and the Republic of Ireland. The UK would align with the relevant EU rules to allow friction-free trade at the border; it would participate in the European agencies for chemicals, aviation safety and medicines. The White Paper proposes applying EU customs rules to the imports of goods arriving in the UK on behalf of the EU and collecting VAT on these goods also on its behalf.

For services, the UK would regain its regulatory freedom, agreeing to forego the European passport for financial services, while referring to provisions for the mutual recognition of regulations, which would preserve the benefits of integrated markets. It wishes to maintain cooperation in the fields of energy and transport. In return, the UK is committed to maintaining cooperative provisions on competition regulation, labour law and the environment. Freedom of movement would be maintained for citizens of the EU and the

UK.

The security partnership would include the maintenance of cooperation on police and legal matters, the UK's participation in Europol and Eurojust, and coordination on foreign policy, defence, and the fight against terrorism.

The White Paper proposes close cooperation on the circulation and protection of personal data as well as agreements for scientific cooperation in the fields of innovation, culture, education, development, international action, and R&D in the defence and aerospace sector. The UK wishes to continue to participate in European programmes on scientific cooperation, with a corresponding financial contribution. Finally, the United Kingdom would no longer participate in the common fisheries policy, but proposes negotiations on the subject.

In institutional matters, the UK proposes an Association Agreement, with regular dialogue between EU and UK Ministers, in a Joint Committee. The UK would recognize the exclusive jurisdiction of the CJEU to interpret EU rules, but disputes between the UK and the EU would be settled by the Joint Committee or by independent arbitration.

Up to now Theresa May has tried to assuage both the hard Brexiteers – the UK will indeed leave the EU – and supporters of a flexible Brexit – the UK wants a deep and special partnership with the EU. Theresa May regularly repeats that the UK is leaving the EU but not Europe, but her compromise position is not satisfying supporters of a net Brexit. In September 2018, Boris Johnson has been accusing Theresa May of capitulating to the EU: “At every stage in the talks so far, Brussels gets what Brussels wants... We have wrapped a suicide vest around the British Constitution – and handed the detonator to Michel Barnier. We have given him a jemmy with which Brussels can choose – at any time – to crack apart the union between Great Britain and Northern Ireland” [\[5\]](#). According to Johnson, the Chequers plan loses all the benefits

of Brexit. The Remainers, those in favour of staying in the EU, are campaigning for a new referendum. This is nevertheless unlikely. Theresa May rejects it out of hand as a “betrayal of democracy”.

The Conservative Party’s annual convention, to be held from September 30 to October 3, could see Boris Johnson or Jacob Rees-Mogg[\[6\]](#) run for head of the Party. They do not have majority support, however, and the polls show Theresa May with greater popularity than her challengers. Barring a dramatic twist, Theresa May will continue to lead the Brexit negotiations in the coming months.

The British Parliament decided last December 13 that it will have a vote on any agreement with the European Union. So Theresa May must also find a parliamentary majority concerning the UK’s orderly withdrawal, in the face of opposition from both Remainers and hard Brexiteers, which will require the support of some Labour MPs and will therefore be difficult.

The proposals of the July White Paper were not deemed acceptable by Michel Barnier. In August, Jeremy Hunt, the UK’s new Foreign Minister, estimated the risks of a lack of agreement at 60%. On 23 August 2018, the government published 25 technical notes (out of 80 planned) that spell out the government’s measures to be taken in case of a no-deal exit in March 2019. Their objective is to reassure businesses and households about the risks of shortages of imported products, including certain food products and medicines. At the time these notes were published, Dominic Raab, the new Minister in charge of the Brexit negotiations, took care to recall that the government does want an agreement be signed and that the negotiators agree on 80% of the provisions of the withdrawal agreement.

If the EU-27 remains inflexible, the British government will face a choice between leaving without an agreement, which the “hard” Brexiteers are ready to do, and making further

concessions. Philip Hammond recalled the risks of failing to reach an agreement. But Theresa May is sticking to her line that the lack of an agreement would be preferable to a bad deal. On 28 August, she echoed the words of WTO Director-General Roberto Azevedo, that leaving without an agreement would not be “the end of the world”, but nor would it be “a walk in the park”. In an opinion column in the *Sunday Telegraph* of 1 September 2018, she reaffirmed her desire to build a United Kingdom that is stronger, more daring, based on meritocracy, and adapted to the future, outside the EU.

### **The negotiations from the EU viewpoint**

The EU-27 is refusing that the UK could stay in the single market and the customs union while choosing which rules it wants to apply. It does not want the UK to benefit from more favourable rules than other third countries, in particular the current members of the European Economic Area (the EEA: Norway, Iceland, Liechtenstein) or Switzerland. EEA members currently have to integrate all the single market legislation (in particular the free movement of persons) and contribute to the European budget. They benefit from the European passport for financial institutions, while Switzerland does not.

In December 2017, Michel Barnier made it clear that lessons had to be drawn from the United Kingdom’s refusal to respect the four freedoms, its regaining of its commercial sovereignty, and its termination of its recognition of the authority of the European Court of Justice. This rules out any possibility of its participation in the single market and the customs union. The agreement with the UK will be a free trade agreement, along the lines of the agreements signed with Canada (the CETA), South Korea and more recently Japan. It will not concern financial services.

During the 2018 negotiations, the EU-27 was not particularly conciliatory about a series of issues: the UK’s obligation to apply all EU rules and the guarantee of the freedom of

establishment of people until the end of the transitional period; the Irish border (arguing that the absence of physical borders was not compatible with the UK's withdrawal from the customs union, demanding that Northern Ireland remain in the single market as long as the UK does not come up with a solution guaranteeing the integrity of the internal market without a physical border with Ireland); the role of the CJEU (which must have jurisdiction to interpret the withdrawal agreement); the EU's decision-making autonomy (refusing the establishment of permanent joint decision-making bodies with the UK); and even Gibraltar and the British military bases in Cyprus.

Thus, on 2 July 2018, Michel Barnier<sup>[7]</sup> accepted the principle of an ambitious partnership, but refused any land border between the two parts of Ireland, while indicating that a land border is necessary to protect the EU (this would mean that the only acceptable deal would involve a border crossing between Northern Ireland and the rest of the UK, which is unacceptable to the UK). He refused that the EU "loses control of its borders and its laws". Barnier therefore rejected the idea that the UK would be responsible for enforcing European customs rules and collecting VAT for the EU. He insisted that future cooperation with the UK could not rely on the same degree of trust as between EU member countries. He called for precise and controllable commitments from the United Kingdom, particularly with respect to health standards and the protection of Geographical indications. He wanted the agreement to be limited to a free trade agreement, with UK guarantees on regulations and state subsidies, and with cooperation on customs and regulations.

The UK would have to renegotiate all trade agreements, both with the EU and with third countries. These agreements will probably take a long time to set up, and in any case more than two years. The lack of preparation and the disorganization with which the UK has tackled the Brexit negotiations augurs

poorly for its ability to negotiate such agreements quickly. The matter of re-establishing customs controls is crucial and delicate, whether in Ireland, Gibraltar or Calais. Many multinational corporations will relocate their factories and headquarters to continental Europe. The loss of the financial passport is a given. It is on this point that the British could see further losses, given the weight of the City's business (7.5% of British GDP). The United Kingdom will have to choose between abiding by European rules to maintain some access to European markets and entering into confrontation by a policy of liberalization. The EU-27 could seize the opportunity of the UK's departure to return to a Rhine-based financial model, centred on banks and credit rather than on markets or, on the contrary, it could try to supplant the City's market activities through liberalization measures. It is the second branch of these alternative that will prevail.

### **Choosing between three strategies**

So far, the EU-27 countries have taken a position that is tough but easy to hold: since it is the UK that has chosen to leave the Union, it is up to it to make acceptable proposals for the EU-27, with regard both to its withdrawal and to subsequent relations. This is the approach that led to the current stagnant situation. The EU-27 now has to choose between three strategies:

– Not to make proposals acceptable to the British and resign themselves to a no-deal Brexit: relations between the UK and the EU-27 would be managed according to WTO principles; and the financial terms of the divorce would be decided legally. The United Kingdom would regain full sovereignty. There are two reasons to fear this scenario: trade would be disrupted by the re-erection of customs barriers in ports and in Ireland; and this "hard Brexit" would encourage the UK to become a tax and regulatory haven, meaning that the EU would be faced with the alternative either of following along or retaliating, both of which would be destructive;

– Face the issue head on and establish a third circle for countries that want to participate in a customs union with the EU countries in the short term, i.e. the United Kingdom and the EEA countries. It is within this framework that agreements on technical regulations and standards for goods and services would be negotiated. Thus, “freedom of trade” issue would be dissociated from issues of political sovereignty. However, this poses two problems: these agreements would need to be negotiated in technical committees where public opinion and national parliaments such as the European Parliament would have little voice. The fields of the customs union are problematic, in particular for fiscal matters, financial regulations, and the freedom of movement of persons and services;

– Choose the “special and deep partnership” solution, which would entail reciprocal concessions. This would necessarily be able to serve as a model for relations between the EU and other countries. It would include a customs union limited to goods, committees for harmonizing standards, piecemeal agreements for services, the right of the UK to limit the movement of persons, undoubtedly a court of arbitration (which would limit the powers of the CJEU), and a commitment to avoid fiscal and regulatory competition. As is clear, this would satisfy neither supporters of a hard Brexit nor supporters of an autonomous and integrated European Union.

[\[1\]](#) See: *Joint report from the negotiators of the EU and the UK government on progress during phase 1 of negotiations under Article 50 on the UK’s orderly withdrawal from the EU*, 8 December 2017.

[\[2\]](#) See Catherine Mathieu and Henri Sterdyniak: *Brexit, réussir sa sortie*, *Blog de l’OFCE*, 6 December 2017.

[\[3\]](#) HM Government: “The future relationship between the United



Kingdom and the European Union”, July 2018.

[4] The expression is in the original text: “A principled and practical Brexit”. Translations of the summary note in the 25 languages of the EU are available on the web site of the Department for Exiting the European Union. The French version uses the term: “Brexit vertueux et pratique”.

[5] Opinion column by Boris Johnson, *Mail on Sunday*, 9 September 2018.

[6] Favourable to a hard Brexit – from Eton-Oxford, a traditionalist Catholic who is opposed to abortion, public spending and the fight against climate change.

[7] See [Un partenariat ambitieux avec le Royaume-Uni après le Brexit](#), 2 July 2018.

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# The participation rate and working hours: Differentiated impacts on the unemployment rate

By [Bruno Ducoudré](#) and [Pierre Madec](#)

In the course of the crisis, most European countries reduced actual working hours to a greater or lesser extent through partial unemployment schemes, the reduction of overtime or the

use of time savings accounts, but also through the expansion of part-time work (particularly in Italy and Spain), including on an involuntary basis. In contrast, the favourable trend in US unemployment has been due in part to a significant fall in the labour force participation rate.

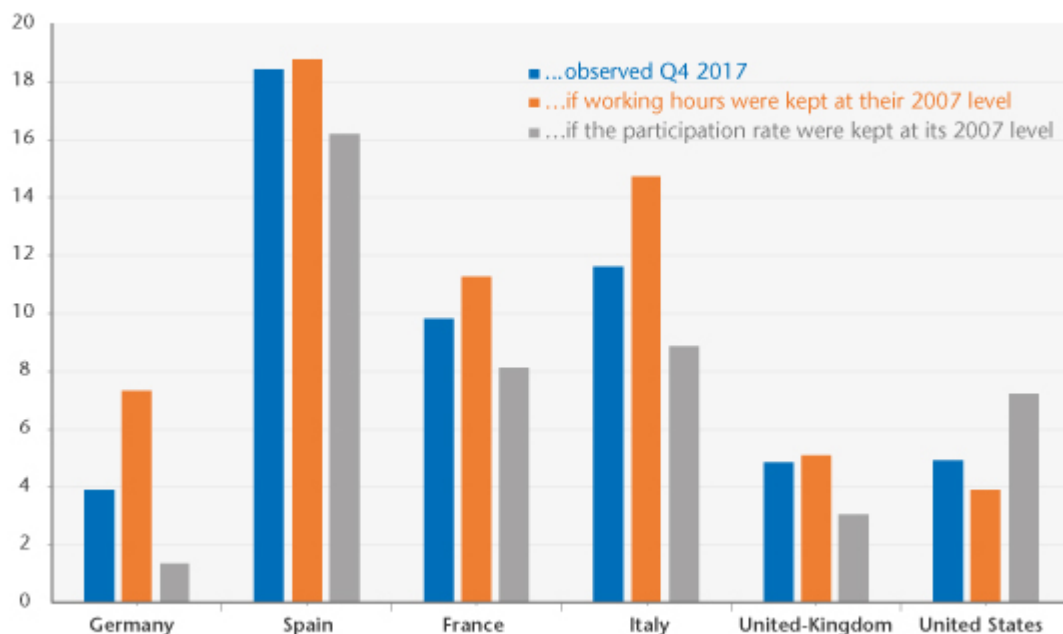
Assuming that a one-point increase in the participation rate leads, holding employment constant, to a rise in the unemployment rate, it is possible to measure the impact of these adjustments (working hours and participation rates) on unemployment by calculating an unemployment rate at constant employment and checking these adjustments. Except in the United States, the countries studied experienced an increase in their active population (employed + unemployed) that was larger than that observed in the general population, due among other things to the implementation of pension reforms. Mechanically, without job creation, this demographic growth would have the effect of pushing up the unemployment rate in the countries concerned.

If the participation rate had remained at its 2007 level, the unemployment rate would be lower by 2.3 points in France, 3.1 points in Italy and 2 points in the United Kingdom (see figure). On the other hand, without the sharp contraction in the US labour force, the unemployment rate would have been more than 3.2 percentage points higher than that observed at the end of 2017. It also seems that Germany has experienced a significant reduction in its unemployment rate since the crisis, even as its participation rate rose. Given the same participation rate, Germany's unemployment rate would be ... 0.9%. However, changes in participation rates are also the result of structural demographic factors, to such an extent that the hypothesis of a return to 2007 rates can be considered arbitrary. For the United States, part of the fall in the participation rate can be explained by changes in the structure of the population. The figure for under-employment can also be considered too high.

The lessons are very different with respect to the duration of work. It seems that if working hours had stayed at their pre-crisis levels in all the countries, the unemployment rate would have been 3.7 points higher in Germany and 2.9 points higher in Italy. In France, Spain, the United Kingdom and the United States, working time has fallen only slightly since the crisis. If working hours had remained the same as in 2007, the unemployment rate would have been slightly higher in all of these countries.

Note that the trend for working time to fall largely preceded the 2007 economic crisis (table). While this pre-crisis trend has continued in Germany and even been accentuated in Italy, working time has fallen to a lesser extent in France, Spain and the United States. In the United Kingdom, the reduction in working hours that was underway before 2007 has been cut short.

**Figure. Unemployment rate observed at Q4 2017 and unemployment rate under the hypothesis of...**



Sources: National accounts, OFCE calculations.

**Table. Change in number of hours worked before and after the 2007 crisis**

	Germany	Spain	France	Italy	United Kingdom	United States
<b>1997-2007</b>	-5.3%	-2.4%	-4.0%	-2.9%	-3.5%	-2.6%
<b>2007-2017</b>	-5.4%	-1.2%	-1.6%	-5.7%	0.0%	-0.6%

Sources: National accounts, OFCE calculations.

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# The end of a cycle?

OFCE Analysis and Forecasting Department

*This text is based on the 2018-2019 outlook for the world economy and the euro zone, a full version of which is available [here](#) [in French].*

Global growth remained buoyant in 2017, allowing both the recovery and the reduction in unemployment to continue, especially in the advanced countries where growth rose to 2.3%, up from 1.6% the previous year. Although there are still a few countries where GDP has not recovered to its pre-crisis level, this improvement will gradually erase the stigma of the Great Recession that hit the economy 10 years ago. Above all, activity seemed to be gathering pace at the end of the year as, with the exception of the United Kingdom, annual GDP growth continued to pick up pace (Figure 1). However, the gradual return of the unemployment rate to its pre-crisis level and the closing of growth differentials, particularly in the United States and Germany, which had widened during the crisis, could foreshadow a coming collapse of growth. The first available estimates of growth in the first quarter of 2018 seem to lend credence to this assumption.

After a period of improvement, euro zone growth stalled in the first quarter of 2018, falling from 2.8% year-on-year in the fourth quarter of 2017 to 2.5%. While the slowdown has been more significant in Germany and France, it can also be seen in Italy, the Netherlands and, to a lesser extent, Spain (Figure 2). As for the United Kingdom, the slowdown is continuing as the prospect of Brexit draws nearer, while the country's budgetary policy is also more restrictive than in the other European countries. Japan is experiencing rather

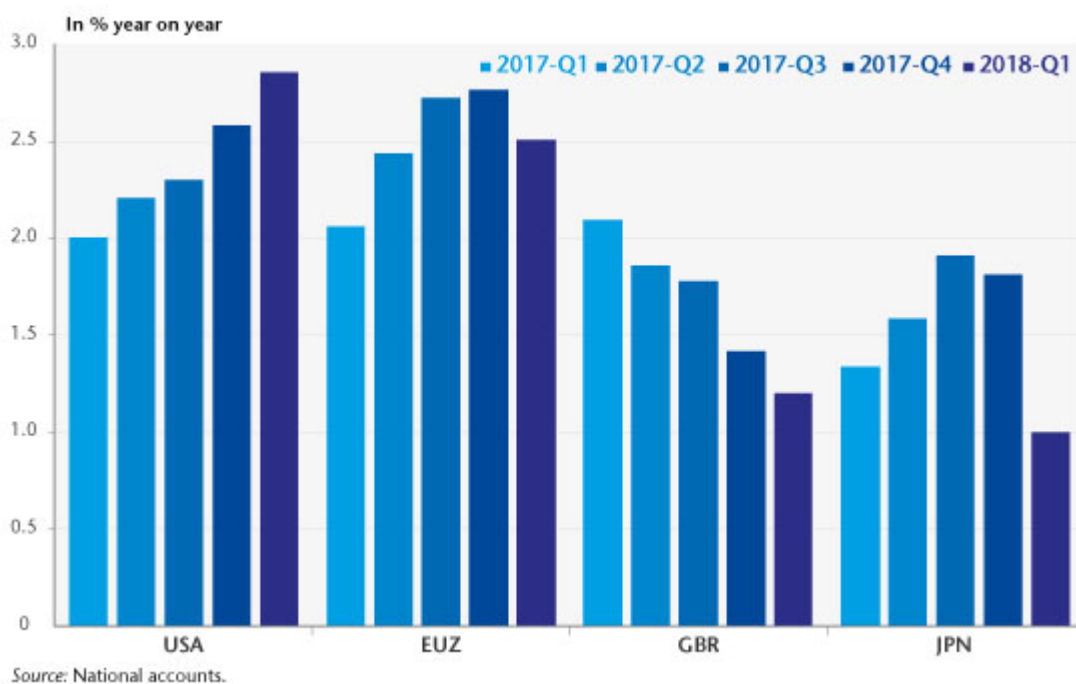
more than a slowdown, with quarterly GDP growth even falling in the first quarter. Finally, among the main advanced economic countries, growth is still gathering steam only in the United States, where GDP rose 2.9% year-on-year in the first quarter of 2018.

Does the slowdown testify to the end of the growth cycle? Indeed, the gradual closing of the gaps between potential GDP and actual GDP would steadily lead countries towards their long-term growth paths, with estimates converging at what is indicated to be a lower level. In this respect, Germany and the United States would be representative of this situation since the unemployment rate in the two countries is below its pre-crisis level. In these conditions, their growth would be slowed. It is clear that this has not been the case in the United States. We must therefore refrain from any generalized conclusion. In fact, despite the fall in unemployment, other indicators – the employment rate – provide a more nuanced diagnosis of the improvement in the state of the labour market in the US. Furthermore, in the case of France this performance is mainly the consequence of the fiscal calendar, which caused a decrease in household purchasing power in the first quarter and therefore a slowdown in consumption [\[1\]](#). This would therefore amount more to an air pocket than the sign of a lasting slowdown in French growth.

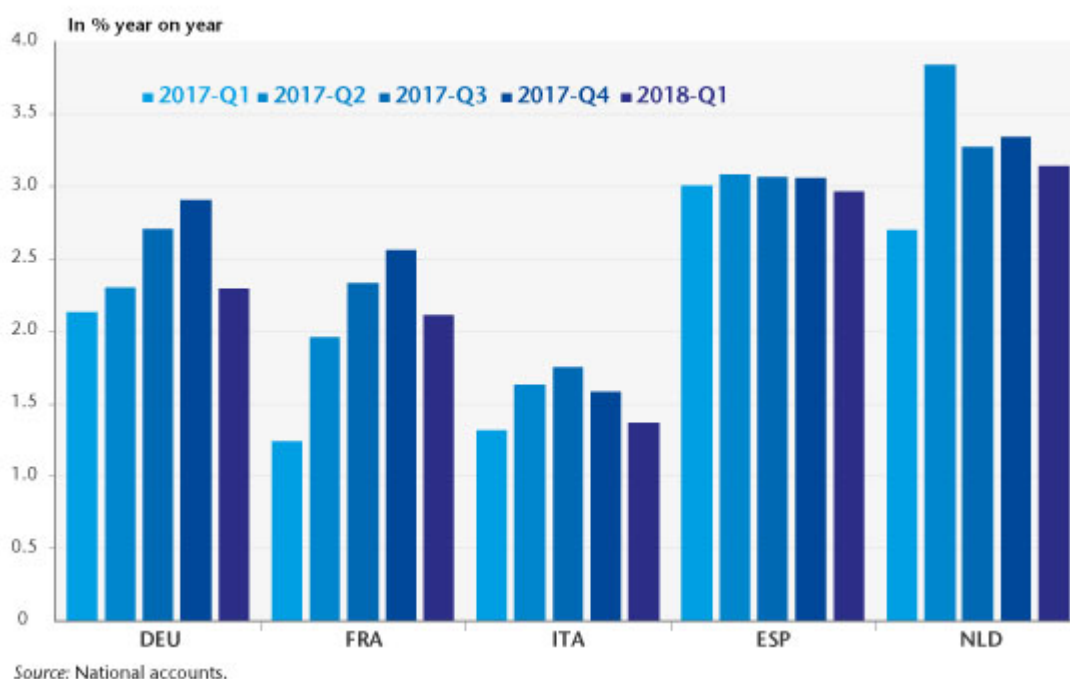
Above all, the factors that have supported growth will not generally be reversed. Monetary policy will remain expansionary even if a normalization is already underway in the United States, with the euro zone to start in 2019. On the fiscal side, the focus is more often neutral and should become highly expansionary for the United States, pushing growth above its potential. Finally, there are many uncertainties about estimates of the growth gap, meaning that maneuvering room might not necessarily be exhausted in the short term. An economic recovery is in fact still not being accompanied by a return of inflationary pressures or sharp wage increases,

which would then indicate that the labour market is overheating. We anticipate continued growth in the industrialized countries in 2018 and accelerating growth in the emerging countries, bringing global growth to 3.7% in 2018. Growth should then peak, slowing down very slightly in 2019 to 3.5%. In the short term, the growth cycle would not then be over.

**Figure 1. Growth in the advanced countries**



**Figure 2. Growth in eurozone**



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# The French policy mix and support for private R&D: What realities for what results?

By Benjamin Montmartin

France can be viewed as a unique experimental laboratory in terms of public support for investment in R&D. Indeed, since the Research Tax Credit was reformed in 2008, France has become the most generous country in the OECD in terms of tax incentives for R&D (OECD, 2018a.) In 2014, the tax credit alone represented (MESRI, 2017) a total of nearly 6 billion euros for the State, and the specific taxation scheme on patent grant revenues (15%) costs the State between 600 and 800 million euros per year. In addition to these losses in tax revenue, there are the various measures to directly support innovation (grants, loans at subsidized rates, etc.) which are financed mainly through the Public Investment Bank (BPI), the Competitiveness centres (PC), local authorities and the European Commission. This direct support accounted for around 3.5 billion euros in 2014. The total cost of all these support measures today comes to over 10 billion euros per year, almost half a percentage point of GDP.

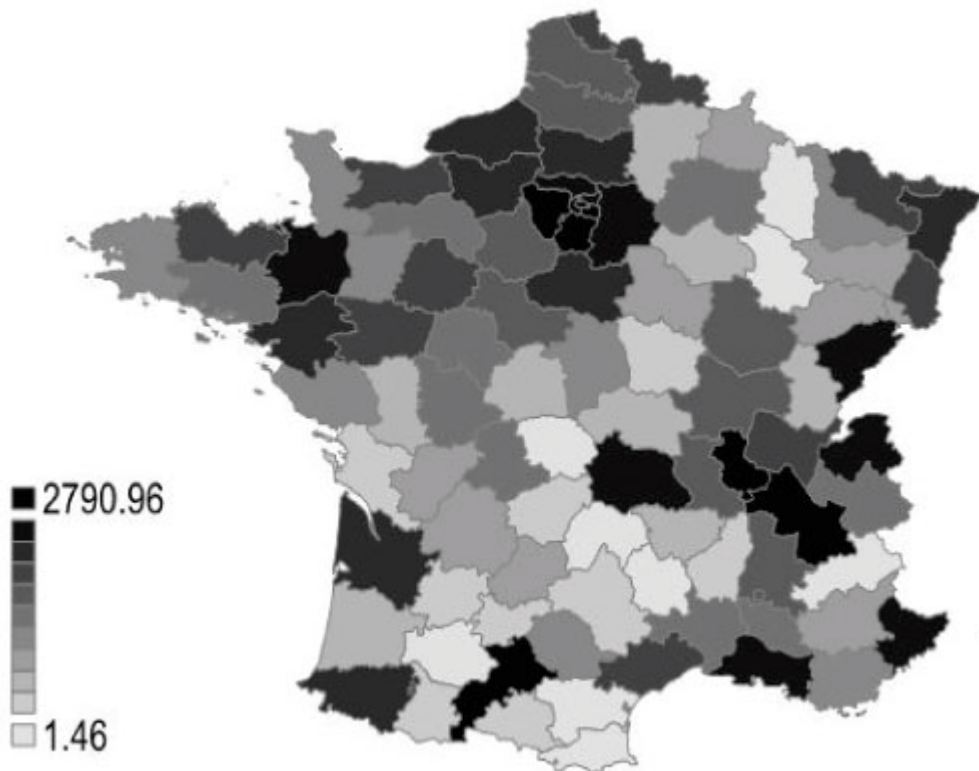
While innovation is one of the main drivers of growth, this is not enough to justify this level of public spending. These devices must also achieve their objective. And from this point of view, the results of the empirical studies evaluating support systems for R&D and innovation are very mixed (Salies, 2018). Moreover, there does not seem to be a direct link between the generosity of States and the level of business investment in R&D. In this respect, a simple comparison

between Germany and France is instructive and cannot be explained solely by sectoral differences. In 2015 (OECD, 2018b) private sector spending on R&D in France accounted for 1.44% of GDP compared to 2.01% in Germany, while public funding for these expenditures was around 5% in Germany against almost 40% in France.

In this context, it seems necessary to better understand the performance of the French policy-mix with respect to private investment in R&D. A recent [OFCE working paper](#) reviews the effect of State aid on R&D spending by French companies. The article differs from existing studies in two main ways. First, instead of focusing on the ability of a particular instrument to generate an additionality, it simultaneously analyzes the impact of the tax credit and the various direct aids in accordance with their institutional source: local, national or European. Second, it assesses the extent to which the geographic structuring of innovation activities in France might influence the effectiveness of R&D support policies. Indeed, unlike Germany, where the geography of innovation is marked by a continuum between innovative territories (European Commission, 2014), France seems more prone to shadow effects [\[1\]](#), as the most innovative territories (the “hubs”) are dispersed and often surrounded by territory that is not very innovative, as shown in the figure below.



## Private spending on R&D (in million euros, average 2001-2011)



Source: MESRI, author's calculations.

Our analysis uses data from firms aggregated at the departmental level over the 2001-2011 period and clearly shows the importance of the spatial organization of innovative activities for the effectiveness of innovation policy. Indeed, it appears that the specificity of the geography of R&D investment in France generates a negative spatial dependence, that is to say, that the hubs are strengthened at the expense of the territories lagging behind. Policies that fail to take this dependence into account will have an overall weaker effect.

And that's exactly what our results show. Indeed, if we do not take into account this spatial dependence, it appears that the instruments studied (tax credit and the various subsidies) are as a whole capable of generating a significant additionality effect on investment in R&D. On the other hand, if we take into account this dependency, only the national subsidies seem to be able to generate such an effect. In other words, only national grants are able to generate benefits that help all

the territories.

In our opinion, this result can be explained by the fact that national grants finance more collaborative projects involving actors from different territories and are therefore more likely to make use of complementarity. Conversely, the tax credit is not targeted geographically and does not particularly favour collaborative projects. Local grants primarily finance projects involving local forces, while European grants favour partnerships with foreign organisations. Thus, these last three sources of financing are more likely to encourage competition effects than complementarity effects between territories.

From a more overall viewpoint, our results therefore underline a nuanced effectiveness of the French policy-mix to promote R&D, as no policy studied seems to generate a significant windfall effect. Nevertheless, changes in the French policy-mix over the last decade, marked by a very pronounced increase in non-geographically targeted policies (tax credit) and, to a lesser extent, competitive policies (local subsidies) seems rather to indicate a decline in its ability to generate a very significant additionality effect.

[1] “Shadow effects” refer to the idea that a territory’s increasing attractiveness often comes at the detriment of other territories, due in particular to the impact of competitiveness issues.

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# How can Europe be saved? How can the paradigm be changed?

By [Xavier Ragot](#)

There are new inflections in the debate over the construction of Europe. New options from a variety of economic and political perspectives have seen the light of day in several key conferences and workshops, though without the visibility of public statements. The debate is livelier in Germany than in France. This is due probably to the caricature of a debate that took place during France’s presidential elections, which took the form of “for or against the single currency”, while the debate needed was over how to orient the euro area’s institutions to serve growth and deal with inequalities.

Two conferences were held in Berlin one week apart that

considered opposing options. The first tackled the consequences of a country leaving the euro area; the second examined an alternative paradigm for reducing inequalities in Europe. In other words, the two conferences covered almost the entire spectrum of conceivable economic policies.

### **Sowing fear: the end of the euro area?**

The first question: What would happen if one or more countries left the euro area? Should we hope for this, or how could we prevent it? A [conference](#) held on March 14 under the title “Is the euro sustainable – and what if it isn’t?” brought together the heads of influential institutes like Clemens Fuest, one of the five German “wise men”, Christoph Schmidt, and economists frequently seen in the German media like Hans-Werner Sinn, as well as economists like Jeromin Zettelmeyer. The presence of the OFCE, which I represented, hopefully helped to serve as a reminder of some simple but useful points.

This first conference sometimes played with the ambiguity of the issue, with some contributions seeming to wish for an end to the euro area while others were more analytical in order to show the risks. The voice of Hans-Werner Sinn stood out during this discussion for its radical stance. Without going so far as to wish that Germany left the euro area, Sinn insisted in a systematic (and skewed) way that Germany was suffering under Europe’s monetary policy. He insisted in particular on the role of Germany’s hidden exposure to the debt of other countries through the European Central Bank and TARGET2, which books the surpluses and deficits of the national central banks vis-à-vis the ECB. The TARGET2 balance shows that the southern European countries are running a deficit, while Germany has a substantial surplus of almost 900 billion euros, which represents 30% of German GDP. These amounts are very significant, but do not in any way represent a cost for Germany.

In the most extreme case of a national central bank’s failure

to pay (i.e. an exit from the euro area), the loss would be shared by all the other states independently of the surpluses. The TARGET2 balances are part of Europe's monetary policy, which is aimed at achieving a goal that was agreed on: an average inflation level of 2%. This target has not been hit for many years. Moreover, this policy has led to low interest rates that benefit Germans who pay low interest charges on their public debt, as Jeromin Zettlemeyer pointed out. Finally, Germany's large trade surplus shows that the lack of an exchange rate mechanism in the euro area has benefited Germany significantly. Recall that the volume of Germany's exports exceeded China's in 2016, according to the German institute Ifo!

My presentation was based on the OFCE's numerous studies of the European crisis. The OFCE has published an [analytical note](#) on the effects of an exit from the euro area, showing all the related costs. The studies by [Durand and Villemot](#) provide the analytical basis for providing orders of magnitude. How much would Germans' wealth decline if the euro area were to collapse? The result is, in the end, not very surprising. The Germans would be the greatest losers, with a loss of wealth on the order of 15% of GDP. These figures are of course very tentative and need to be interpreted with the utmost care. The collapse of the euro area would plunge us into unexplored territory, which could surprise us with unexpected sources of instability.

After these preliminary elements, the heart of my presentation was then focused on a simple point. The real challenge facing us is to build coherent labor markets within the euro area, while reducing inequalities. Following on the common monetary policy, the coordination of fiscal policy that was carried out so painfully after 2014 and the aberrations associated with the recessionary fiscal policy (austerity), the main question facing Europe over the next ten years is to develop coherent labor markets. Indeed, Germany's wage moderation, the result

of the difficulties with reunification in the early 1990s, has been a powerful destabilizing force in Europe, as was shown in an [article by Mathilde Le Moigne](#). What is called the supply problem in France is in fact the result of divergences within Europe on the labor market in the wake of Germany's wage moderation. [I proposed that the European Parliament](#) initiate a Europe-wide discussion of national wage dynamics in order to bring about the convergence of wages in a non-deflationary way while avoiding high unemployment in southern Europe. This co-ordination of economic policy on the labor market is designated by the English term "wage stance". Co-ordination of changes in minimum wages and in regulated wages, which orients the direction of wage changes in labour negotiations, are tools for the co-ordination of labor markets.

A second tool is of course the establishment of a [European system of unemployment insurance](#), which would be much less complex than one might think. A European unemployment insurance would aim to be complementary to national unemployment insurance, and not a replacement. National unemployment insurance systems are actually heterogeneous because, on the one hand, the labour markets are distinct, and on the other hand national preferences differ. Unemployment insurance systems are for the most part the result of historical social compromises.

How should this relatively radical German stance against Europe be interpreted today? Perhaps it represents the discontent of economists who are losing influence in Germany. It might seem paradoxical, but many German economists and observers are adjusting to recognize the necessity of building a different Europe, one not based on rules, but leaving room for political choices within strong institutions – i.e. for agile, well respected institutions rather than rules. This position is associated with France in the European debate: choices rather than rules. The German coalition agreement that paved the way for an SPD/CDU government has placed the issue

of Europe at the center of the agreement, but with a great deal of vagueness about the content. Certain developments will test the relevance of this hypothesis, in particular the issue of a euro area minister and the nature of the decision-making rules within the key crisis-resolution mechanism, the European stability mechanism.

### **Europe: Changing the software / model / paradigm / narrative**

A second, more confidential conference proved to be even more exciting, with the presence of the European Climate Foundation on the climate issue, the INET institute on developments in economic thought, and the OFCE on European imbalances. The aim of the conference was to reflect on a shift in the paradigm, or narrative, and come up with a new articulation between politics and economics, the state and the market, in order to think sustainable growth in terms of both the climate and society. A narrative is a vision of the world conveyed by simple language. Thus the “neoliberal” narrative is built on positive words like “competition”, “markets” and “freedom” as well as negative words like “profit”, “interventionism” and “egalitarianism”, which allowed the creation of a language. Donald Trump produces an equally effective narrative: “giving power back to the people”, “America first”; this narrative marks the return of politics to a mode that assumes an underlying nationalism.

How could another narrative be built that has a central focus on the evidence for the fight against global warming and the aggravation of inequality and financial instability?

For one day economists who are renowned in Europe spoke about artificial intelligence, global warming, current forms of economic and industrial policies, the dynamics of credit and financial bubbles, and more. Empirical work at the forefront of current research as well as reflections about the possibility of a coherent storyline were combined in the promise of an alternative narrative. It was just the start. The possibility of a renewal of thought that transcended

political divisions and spoke about what was essential came to light: how could the economy be placed at the service of a political project that aims not to rebuild borders to exclude but to imagine our common humanity?

These two conferences show the vitality of the European debate, which is presented from an overly technical perspective in France. The *raison d'être* of the euro is a common project. It is at this level that we need to conduct the discussion leading into the 2019 European elections.

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## **The 2018 European economy: A hymn to reform**

By [Jérôme Creel](#)

The OFCE has just published the [2018 European Economy](#) [in French]. The book provides an assessment of the European Union (EU) following a period of sharp political tension but in an improving economic climate that should be conducive to reform, before the process of the UK's separation from the EU takes place.

Many economic and political issues crucial to better understanding the future of the EU are summarized in the book: the history of EU integration and the risks of disintegration; the recent improvement in its economic situation; the economic, political and financial stakes involved in Brexit; the state of labour mobility within the Union; its climate policy; the representativeness of European institutions; and the reform of EU economic governance, both budgetary and



monetary.

The year 2018 is a pivotal year prior to the elections to the European Parliament in spring 2019, but also before the 20th anniversary of the euro on 1 January 2019. The question of the euro's performance will be central. However, in 2018 gross domestic product will finally begin to increase at well above its pre-crisis level, thanks to renewed business investment and the support of monetary policy, henceforth unhindered by fiscal policy.

The year 2018 will also mark the beginning of negotiations on the future economic and financial relationship of the United Kingdom and the EU, after at end 2017 the two parties found common ground on arrangements for the UK leaving the Union. The EU's renewed growth will reduce the potential costs of the divorce with the British and could also lessen Europeans' interest in this issue.

Brexit could have served as a catalyst for reforming Europe; the fact that the mechanisms for this may now seem less crucial to the EU's future functioning should not take away from the reforms needed by the EU, as if these were superfluous. In the political and monetary fields, there is a great need to strengthen the democratic representativeness of EU institutions (parliament, central bank) and to ensure the euro's legitimacy. In the fields of fiscal and immigration policy, past experience has demonstrated the need for coordinated tools to better manage future economic and financial crises.

There is therefore an urgent need to revitalize a project that is over sixty years old, one that has managed to ensure peace and prosperity in Europe, but which lacks flexibility in the face of the unpredictable (crises), which lacks vigour in the face of the imperatives of the ecological transition, and which is singularly lacking in creativity to strengthen the convergences within it.

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# A new Great Moderation?

by Analysis and Forecasting Department

This text summarizes the OFCE's 2017-2019 forecast for the global economy and the euro zone; the full version can be found [here](#).

Ten years after the financial crisis broke out in the summer of 2007, the world economy finally seems to be embarking on a trajectory of more solid growth in both the industrialized and most of the emerging countries. The figures for the first half of 2017 indicate that global growth is accelerating, which should result in GDP growth of 3.3% over the year as a whole, up 0.3 percentage point over the previous year. Some uncertainty remains, of course, in particular concerning the outcome of Brexit and the ability of the Chinese authorities to control their economic slowdown, but these are the types of irreducible uncertainties characteristic of an economic system that is subject to political, technological, economic and financial shocks[1]. Beyond these risks, which should not be underestimated, lies the question of the ability of the world's economies to reduce the imbalances inherited from the crisis. While current growth is sufficient to bring down the unemployment rate and improve the employment rate, it needs to be long-lasting enough to get back to full employment, reduce inequalities, and promote debt reduction.

In this respect, not all the doubts have been lifted by the current upturn in the world's economic situation. First, growth has remained moderate in light of the past recession and previous episodes of recovery. Since 2012, the global

economy has grown at an average rate of 3.2%, which is lower than in the 2000s (graphic). The growth trajectory seems to be closer to what was observed in the 1980s and 1990s. This period, the so-called Great Moderation, was characterized by lower macroeconomic volatility and a disinflationary trend, first in the advanced countries, then in the emerging countries. This second element is also an important point in the global economic situation today. Indeed, the pick-up in growth is not translating into renewed inflation. The low rate of inflation reflects the persistence of underemployment in the labor market, which is holding back wage growth. It also illustrates the difficulties the central banks are having in (re)-anchoring inflation expectations on their target.

Finally, there is the matter of the growth potential. Despite numerous uncertainties about measuring growth potential, many estimates are converging on a projection of weaker long-term growth, due mainly to a slowdown in trend productivity. It should be noted, however, that the methods used to determine this growth trajectory sometimes lead to prolonging recent trends, and can therefore become self-fulfilling if they lead private and public agents to reduce their spending in anticipation of a slowdown in growth. Conversely, boosting future growth requires private and public investment. Economic policies must therefore continue to play a leading role in supporting the recovery and creating the conditions for future growth.

Figure. The recovery of the global economy



Sources: National accounts, OFCE calculations, October 2017.

[1] See OFCE (2017): [La routine de l'incertitude](#) [in French].

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# Growth and inequality in the European Union

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

“Growth and Inequality: Challenges for the Economies of the European Union” was the theme of the 14th EUROFRAME Symposium on Economic Policy Issues in the European Union held on 9 June 2017 in Berlin. [EUROFRAME](#) is a network of European economic institutes that includes DIW and IFW (Germany), WIFO (Austria), ETLA (Finland), OFCE (France), ESRI (Ireland), PROMETEIA (Italy), CPB (Netherlands), CASE (Poland) and NIESR (United Kingdom). Since 2004, EUROFRAME has organized a

symposium on an important subject for the European economies every year.

This year, 27 contributions from researchers, selected by a scientific committee, were presented at the symposium, most of which are available on the conference [web page](#). This text provides a summary of the studies presented and discussed at the symposium.

As DIW President Marcel Fratzcher pointed out in his opening remarks, the rise in inequality over the last 30 years has meant that inequalities that were previously subjects of study reserved for researchers in social policy have now become subjects for numerous economists. Several questions were posed: why this rise in inequality? Is the increase in inequality in each country a necessary consequence of the reduction in inequality between countries, in Europe or at the global level? What are the macroeconomic consequences of this increase? What economic policies could avoid this?

**Income inequality: the facts.** Mark Dabrowski (CASE, Warsaw) – “Is there a trade-off between global and national inequality?” – stresses that the growth of inequalities within each country (especially in the United States and China) goes hand in hand with the reduction of inequalities between countries, as both are fuelled by commercial and financial globalization. However, some advanced countries have succeeded in halting the growth in internal inequalities, which shows the continuing importance of national policy.

Oliver Denk (OECD) – “Who are the Top 1 Percent Earners in Europe?” – analyses the structure of the 1% of employees earning the highest incomes in the EU countries. They represent between 9% of total payroll in the United Kingdom to 3.8% in Finland (4.7% in France). Statistically, they are older than the mass of overall employees (this is less clear in the East European countries), more masculine (this is less clear in the Nordic countries), and more highly educated. They

are more numerous in finance, communication and business services.

Tim Callan, Karina Doorley and Michael Savage (ESRI Dublin), analyse the growth in income inequality in the countries most affected by the crisis (“Inequality in EU crisis countries: Identifying the impacts of automatic stabilisers and discretionary policy”). In these five countries, Spain, Greece, Ireland, Portugal and Cyprus, primary income inequalities have increased due to the crisis, but thanks to automatic tax and social transfers, inequalities in disposable income have remained stable in Ireland and Portugal and (to a lesser degree) in Greece.

Carlos Vacas-Soriano and Enrique Fernández-Macías (Eurofound) – “Inequalities and employment patterns in Europe before and after the Great Recession” – show that income inequality decreased overall in the EU before 2008, as new entrants caught up with the older members. Since 2008, the Great Recession has deepened inequalities between countries and within many countries. The growth of internal inequality is due mainly to rising unemployment; it is striking traditionally egalitarian countries (Germany, Sweden, Denmark); and it is mitigated by family solidarity and social protection, whose roles are nevertheless under question.

**Modelling the growth / inequality relationship.** Alberto Cardiac (University of Cattolica del Sacro Cuore, Milan) and Francesco Saraceno (OFCE, Paris) – “Inequality and Imbalances: An open-economy agent-based model” – present a two-country model. In one, the search for external surpluses leads to pressure on wages and a depression of domestic demand, which is offset by export earnings. In the other, the growth of inequality leads to a downward trend in consumption, which is offset by the expansion of credit. The result is an endogenous debt crisis when the household debt of the second country reaches a limit value.

Alain Desdoigts (IEDES, University of Paris 1 Panthéon-Sorbonne) and Fernando Jaramillo (Universidad del Rosario, Bogota) – “Learning by doing, inequality, and sustained growth: A middle-class perspective” – present a model where innovations can be applied in production only in sectors with a sufficient size, hence those that produce the goods purchased by the middle class (so neither in the luxury goods sector nor in the low-end goods sector). Growth is therefore stronger as the middle class expands. Redistribution is favourable to growth if it is made from the rich to the middle class, and unfavourable if it goes from the middle class to the poor.

**Inequality, financialisation, monetary policy.** The article by Dirk Bezemer and Anna Samarina (University of Groningen) – “Debt shift, financial development and income inequality in Europe” – distinguishes between two types of bank credit: credit for financial and real estate activities, and credit for non-financial enterprises and consumption. They explain the growth of inequality in the developed countries by the growing role of credit that finances finance to the detriment of credit that finances production.

The article by Mathias Klein (DIW Berlin) and Roland Winkler (TU Dortmund University) – “Austerity, inequality, and private debt overhang” – argues that restrictive fiscal policies have little impact on activity and employment when private debt is low (because there is a full Barro effect); they have a restrictive effect on activity and increase income inequality when private debt is high. Therefore, fiscal restraint should be applied only once private debt has been reduced.

Davide Furceri, Prakash Loungani and Aleksandra Zdzienicka (IMF) – “The effect of monetary policy shocks on inequality” – point out that the impact of monetary policy on income inequality is ambiguous. An expansionary policy can reduce unemployment and lower interest rates (which reduces inequality); it can also lead to inflation and raise the price

of assets (which increases inequality). Empirically, it appears that a restrictive policy increases income inequality unless it is caused by higher growth.

**Inequalities and social policy.** Alexei Kireyev and Jingyang Chen (IMF) – “Inclusive growth framework” – advocate for growth indicators that include trends in poverty and in inequality in income and consumption.

Dorothee Ihle (University of Muenster) – “Treatment effects of Riester participation along the wealth distribution: An instrumental quantile regression analysis” – analyses the impact of Riester pension plans on the wealth of German households. They significantly increase the wealth of the participating households at the bottom of the income distribution, but these are relatively few in number, while this mainly has wealth redistribution effects for middle-class households.

**Inequality, poverty and mobility.** Katharina Weddige-Haaf (Utrecht University) and Clemens Kool (CPB and Utrecht University) – “The impact of fiscal policy and internal migration on regional growth and convergence in Germany” – analyse the factors for convergence of per capita income between the old and new German Länder. Convergence has been driven by internal migration, investment subsidies and structural funds, but fiscal transfers in general have had no effect. The 2008 crisis favoured convergence by hitting the richest regions in particular.

Elizabeth Jane Casabianca and Elena Giarda (Prometeia, Bologna) – “From rags to riches, from riches to rags: Intra-generational mobility in Europe before and after the Great Recession” – analyse the mobility of individual incomes in four European countries: Spain, France, Italy and the United Kingdom. Before the crisis, this was strong in Spain and weak in Italy. It declined markedly after the crisis, particularly in Spain; it remained stable in the United Kingdom.



Luigi Campiglio (Università Cattolica del S. Cuore di Milano) – “Absolute poverty, food and housing” – analyses absolute poverty in Italy using an indicator based on food consumption. He shows that poor families bear particularly high housing costs, which cuts into their food consumption and health care spending. Poor families with children are tenants and were hit especially hard by the crisis. Social policy should offer them better protection through targeted transfers in cash or in kind (health, education).

Georgia Kaplanoglou and Vassilis T. Rapanos (National and Kapodistrian University of Athens and Academy of Athens) – “Evolutions in consumption inequality and poverty in Greece: The impact of the crisis and austerity policies” – point out that the crisis and austerity policies have reduced GDP and household consumption by about 30% in Greece. This has been accompanied by an increase in inequality in consumption, which the paper documents in detail. It analyses in particular the effect of VAT hikes. Families with children were especially hard hit.

**Labour market.** Christian Hutter (IAB, German Federal Employment Agency) and Enzo Weber (IAB and Universität Regensburg) – “Labour market effects of wage inequality and skill-biased technical change in Germany” – use German data to estimate a structural vector model for analysing the link between wage inequalities, employment, neutral technical progress and technical progress favouring skilled labour. The latter raises labour productivity and wages, but also wage inequalities, and it reduces employment. Wage inequalities have a negative impact on employment and overall productivity.

Eckhard Hein and Achim Truger (Berlin School of Economics and Law, Institute for International Political Economy) – “Opportunities and limits of rebalancing the Eurozone via wage policies: Theoretical considerations and empirical illustrations for the case of Germany” – analyse the impact of wage increases in Germany on the rebalancing of current

account balances in Europe. They show that these play a role not only through a competitiveness effect, but also through a demand effect by modifying the wage / profit distribution and by boosting consumption. They must therefore also be supported by an increase in public spending.

Camille Logeay and Heike Joebges (HTW Berlin) – “Could a wage formula prevent excessive current account imbalances in euro area countries? A study on wage costs and profit developments in peripheral countries” – show that the rule “wages must grow in line with labour productivity and the inflation target” should have had stabilizing effects in Europe both on the competitiveness of the member countries as well as on their domestic demand. This nevertheless assumes that companies do not take advantage of this to boost their profits and that no country seeks to increase its competitiveness.

Hassan Molana (University of Dundee), Catia Montagna (University of Aberdeen) and George E. Onwordi (University of Aberdeen) – “Reforming the Liberal Welfare State: International Shocks, unemployment and household income shares” – construct a model to show that a free market country, such as the United Kingdom, could improve the functioning of its labour market by reducing flexibility to move towards a flexi-security model: higher unemployment benefits, restrictions on redundancies, greater spending on training, and support for hiring. By boosting labour productivity, this strategy would reduce the structural unemployment rate and increase the share of profits.

Guillaume Claveres (Centre d’Economie de la Sorbonne, Paris) and Marius Clemens (DIW, Berlin) – “Unemployment Insurance Union” – propose a model for European unemployment insurance that would cover part of the expenses of unemployment benefits. This could reduce fluctuations in consumption and unemployment resulting from specific shocks. This assumes, however, that it would apply only to cyclical unemployment, which is difficult to define.

Bruno Contini (Università di Torino and Collegio Carlo Alberto), José Ignacio Garcia Perez (Universidad Pablo de Olavide), Toralf Pusch (Hans-Boeckler Stiftung, Düsseldorf) and Roberto Quaranta (Collegio Carlo Alberto) – “New approaches to the study of long-term non-employment duration via survival analysis: Italy, Germany and Spain” – analyse involuntary non-activity (people who would like to work but have given up looking for a job and lost their rights to unemployment benefits) in Germany, Italy and Spain. This is particularly important and sustainable in Spain and Italy. They caution against measures to encourage redundancies, job insecurity and incentives for undeclared work.

**Taxation.** Markku Lehmus, (ETLA, Helsinki) – “Distributional and employment effects of labour tax changes: Finnish evidence over the period 1996-2008” – uses a general equilibrium model with heterogeneous agents to evaluate the impact of the reduction in the taxation of employment in Finland from 1996 to 2008. He shows that this explains only a small share of the rise in employment (1.4 points out of 16%) and of the rise in income inequality.

Sarah Godar (Berlin School of Economics and Law) and Achim Truger (IMK and Berlin School of Economics and Law) – “Shifting priorities in EU tax policies: A stock-taking exercise over three decades” – analyse the evolution of taxation in the EU states: from 1980 to 2007, taxation became less progressive with lower marginal rates of income tax and corporation tax, and preferred treatment of capital income. The crisis of 2008 and the difficulties with the public finances temporarily slowed this trend; an increase in revenues was, however, often sought by raising VAT.

Alexander Krenek and Margit Schratzenstaller (WIFO) – “Sustainability-oriented future EU funding: A European net wealth tax” – argue for the introduction of a European household wealth tax, which could help finance the European budget.

**The macroeconomic consequences of inequalities.** Bjoern O. Meyer (University of Rome – Tor Vergata) – “Savings glut without saving: Retirement saving and the interest rate decline in the United States between 1984 and 2013” – explains 60% of the decline in the interest rate in the United States, despite the decline in the overall household saving rate, by demographic factors (the differential rise in life expectancy), the slowdown in labour productivity gains and the increase in income inequality.

Marius Clemens, Ferdinand Fichtner, Stefan Gebauer, Simon Junker and Konstantin A. Kholodilin (DIW Berlin) – “How does income inequality influence economic growth in Germany?” – present a macroeconomic model in which short-term income inequalities increase the productivity of each asset (incentive effect), but reduce overall consumption (savings effect); in the long term, they have a negative impact on the formation of the human capital of young people in the working classes. Hence an exogenous increase in income inequalities first has a negative effect on GDP (demand effect), then positive (individual incentive effect) and then again negative in the long term (human capital effect). The effect is always negative on household consumption and positive on the external balance.

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**Trends in labour force participation rates in Europe during the Great Recession:**

# The role of demographics and job polarization

By [Guillaume Allègre](#) and Gregory Verdugo

In Europe as in the United States, employment fell considerably during the Great Recession. Moreover, over the last few decades, the labour markets in both regions have been reshaped by the forces of automation and globalization. However, the response of labour force participation to these changes has varied from country to country. One of the most significant developments in the US labour market over the past decade has been the decline in labour force participation. Between 2004 and 2013, the labour force participation rate for the group aged 25 to 54 fell by 2.6 percentage points (from 83.8% to 81.1%), a decline that has persisted well beyond the end of the Great Recession. In the EU-15, on the other hand, the participation rate for this age group increased by 2 percentage points during the same period (from 83.7% to 85.6%), despite low growth and the persistence of high levels of unemployment.

What explains these differences on the two sides of the Atlantic? To answer this question, we examine [here](#) the determinants of the evolution of labour force participation over the last two decades in twelve European countries and compare this with the United States.

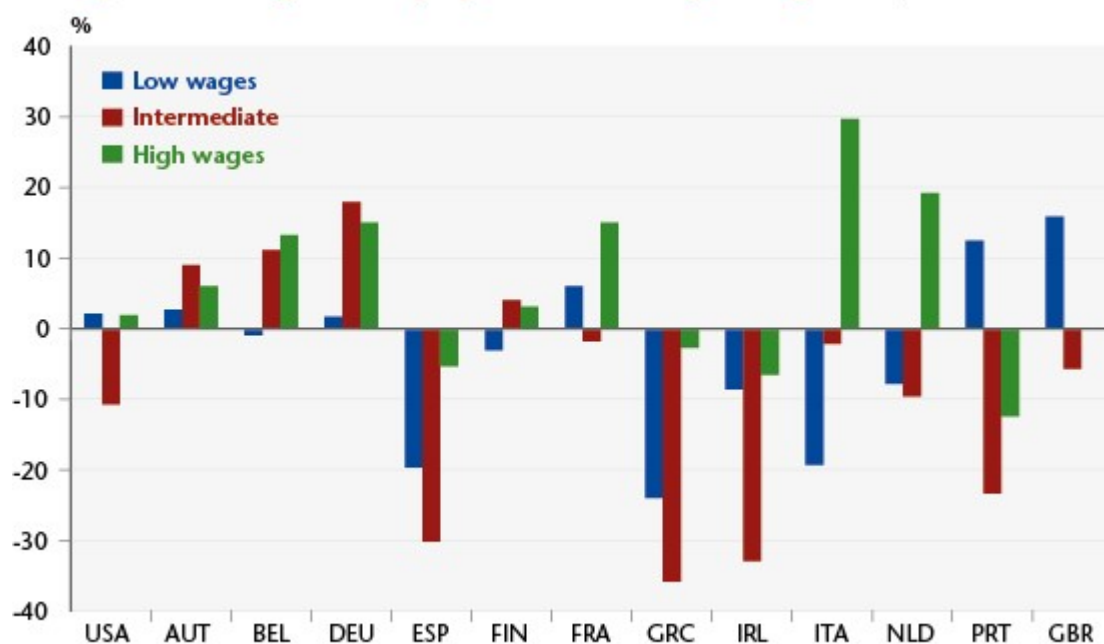
Consistent with previous work on the United States, we found that recent demographic shifts account for a substantial share of cross-country differences. The share of retired baby boomers increased more rapidly in the United States and triggered a sharper decline in participation rates there than in Europe. Over the past decade, the rate of increase in the number of higher education graduates was twice as high in Europe as in the United States, especially in southern Europe

and in particular for women. Women with higher levels of education are more likely to join the workforce, and they have contributed dramatically to the rise in labour force participation in Europe.

However, these changes do not explain everything. For the population with a diploma below the level of the high school baccalaureate, men's labour force participation rates have fallen in all countries. For women, they have increased rapidly, especially in the countries hit hardest by unemployment. In Spain, Greece and Italy, the participation rates for women with a diploma below the baccalaureate level rose by 12, 5.5 and 2 points, respectively, between 2007 and 2013, while these economies were in the midst of a deep recession.

To explain these facts, we investigated the role of changes in patterns of labour demand in recent decades and in particular during the Great Recession. We show that, as in the United States, job polarization (which denotes the reallocation of employment towards the lowest and highest paying occupations at the expense of intermediate professions) accelerated in Europe during the Great Recession (Figure 1). Due to the greater destruction of jobs in intermediate occupations, the recent polarization has been much more intense in Europe.

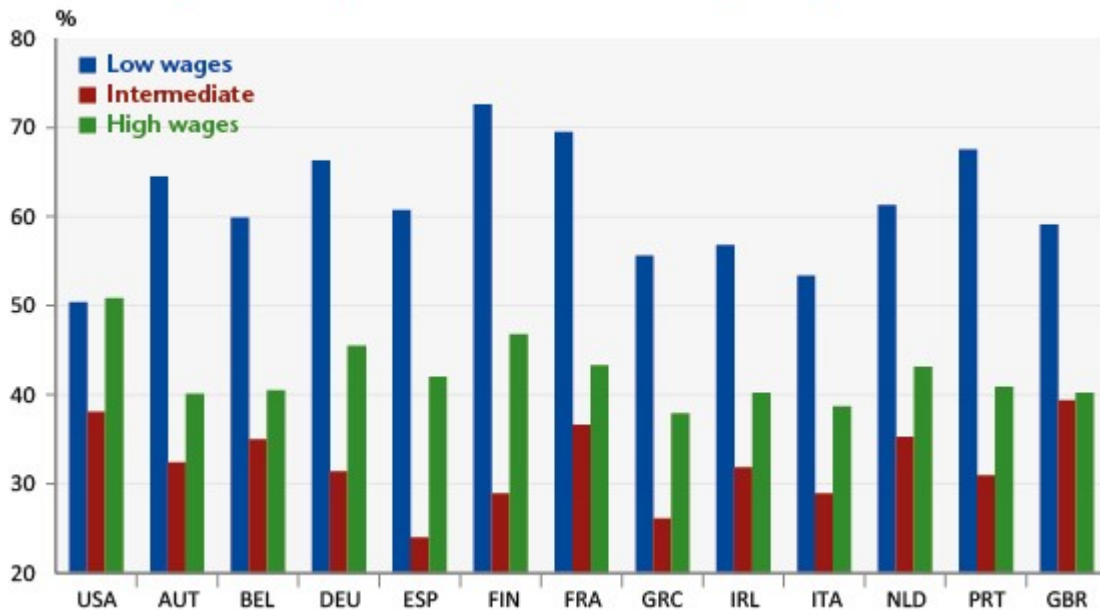
Figure 1. Changes in employment according to wage level, 2007-2013



Source : EU-LFS, CPS (US).

Another important difference with the United States is that occupational segregation between men and women is more pronounced in Europe. The intermediate jobs that are rapidly disappearing are much more likely to employ male workers in Europe, whereas the expansion of low-skilled occupations is disproportionately benefitting women (Figure 2). As a result, in Europe, more than in the United States, job polarization and the destruction of intermediate jobs has led to a decline in labour market opportunities for men that is more dramatic than the decline for women. We find that these asymmetric demand shocks between the genders accounted for most of the increase in labour force participation rates for women with the lowest educational levels during the Great Recession.

Figure 2. Proportion of women according to wage level, 2007



Source : EU-LFS, CPS (US).

For further information: [Gregory Verdugo, Guillaume Allègre, "Labour Force Participation and Job Polarization: Evidence from Europe during the Great Recession", Sciences Po OFCE Working Paper, no. 16, 2017-05-10](#)