The OFCE optimistic about growth — "As usual"?

By <u>Magali Dauvin</u> and <u>Hervé Péléraux</u>

In the spring of 2019, the OFCE forecast real GDP growth of 1.5% for 2019 and 1.4% for 2020 (i.e. cumulative growth of 2.9%). At the same time, the average forecast for the two years compiled by Consensus Forecasts[1] was 1.3% each year (i.e. 2.6% cumulative), with a standard deviation around the average of 0.2 points. This difference has led some observers to describe the OFCE forecasts as "optimistic as usual", with the forecasts of the Consensus or institutes with less favourable projections being considered more "realistic" in the current economic cycle.

A growth forecast is the result of a research exercise and is based on an assessment of general trends in the economy together with the impact of economic policies (including budget, fiscal and monetary policies) and exogenous shocks (such as changes in oil prices, social disturbances, poor weather, geopolitical tensions, etc.). These evaluations are themselves based on econometric estimations of the behaviour of economic agents that are used to quantify their response to these shocks. It is therefore difficult to comment on or compare the growth figures issued by different institutes without clearly presenting their analytical underpinnings or going into the main assumptions about the trends and mechanisms at work in the economy.

However, even if the rigour of the approach underlying the OFCE's forecasts cannot be called into question, it is legitimate to ask whether the OFCE has indeed produced chronic overestimations in its evaluations. If such were the case, the forecasts published in spring 2019 would be tainted by an optimistic bias that needs to be tempered, and the OFCE should

readjust its tools to a new context in order to regain precision in its forecasts.

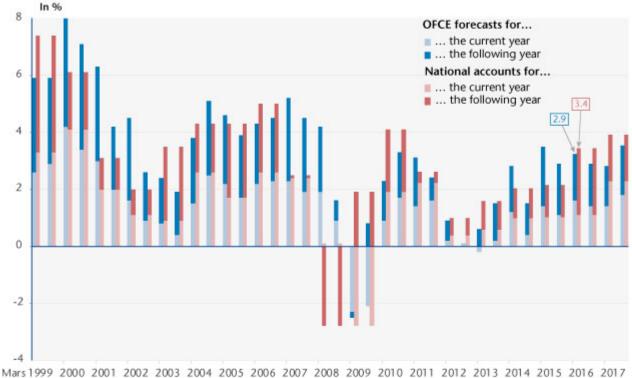
No systematic overestimation

Figure 1 shows the cumulative forecasts of French GDP by the OFCE for the current year and the following year and then compares these with the cumulative results of the national accounts for the two years. In light of these results, it can be seen that the OFCE's forecasts do not suffer from a systematic bias of optimism. For the forecasts conducted in 2016 and 2017, the growth measured by the national accounts is higher than that anticipated by the OFCE, which, while revealing an error in forecasting, does not constitute an overly optimistic view of the recovery.

The opposite can be seen in the forecasts in 2015 for 2015 and 2016; the favourable impact of the oil counter-shock and of the euro's depreciation against the dollar during the second half of 2014 was indeed slower to materialize than the OFCE expected. The year 2016 was also marked by one-off factors such as spring floods, strikes in refineries, the tense environment created by the wave of terrorist attacks and the announcement that certain tax depreciation allowances for industrial investments would end.

In general, there is no systematic overestimation of growth by the OFCE, although some periods are worth noting, such as the years 2007 and 2008 when the negative repercussions of the financial crisis on real activity were not anticipated by our models during four consecutive forecasts. Ultimately, of the 38 forecasts conducted since March 1999, 16 show an overestimate, or 40% of the total, with the others resulting in an underestimation of growth.

Figure. The OFCE's growth forecasts for the current year and the following year and actual growth



Note: This figure shows the OFCE's forecasts for the current year and the following year, cumulated over two years, with respect to the actual figures published by the national accounts. In October 2016, for example, the OFCE forecast cumulative GDP growth of 2.9% from 2015 to 2017, which broke down into growth of 1.4% from 2015 to 2016 and 1.5% from 2016 to 2017. The latest version available of the national accounts on 29 May 2019 shows economic growth of 1% from 2015 to 2016 and 2.4% from 2016 to 2017, i.e. cumulative growth of 3.4% over the two years, which was 0.4 point higher than the OFCE forecast. Hence, a red bar (national accounts) rising higher than the blue bar (OFCE forecast) reflects an "overly pessimistic" GDP growth forecast on the part of the OFCE, and vice versa. Sources: INSEE, OFCE calculations and forecasts.

Forecasts relatively in line with the final accounts

Furthermore, the accuracy of the forecasts should not be evaluated solely in relation to the provisional national accounts, as INSEE's initial estimates are based on a partial knowledge of the real economic situation. They are revised as and when the annual accounts and tax and social information updates are constructed, which leads to a final, and therefore definitive, version of the accounts two-and-a-half years after the end of the year[2].

Table 1 compares the forecasts made by the OFCE and the participating institutions in the spring of each year for the current year and assesses their respective errors first vis-àvis the provisional accounts and then vis-à-vis the revised accounts. On average since 1999, the OFCE's forecasts have

overestimated the provisional accounts by 0.25 points. The forecasts from the Consensus appear more precise, with an error of 0.15 point vis-à-vis the provisional accounts. On the other hand, compared to the definitive accounts, the OFCE's forecasts appear to be right on target (the overestimation disappears), while those from the Consensus ultimately underestimate growth by an average of 0.1 points.

Statistical analysis conducted over a long period thus shows that, while there is room for improvement, the OFCE's forecasts are not affected by an overestimation bias when assessing their accuracy with respect to the final accounts.

Table. OFCE / Consensus forecasts in the spring of the current year and the provisional and revised national accounts

	OFCE	Consensus	Provisional account	Revised account	OFCE error on		Consensus error on	
					Provisional account	Revised account	Provisional account	Revised
1999	2.6	2.3	2.7	3.3	-0.14	-0.69	-0.44	-0.99
000	4.2	3.7	3.2	4.1	1.01	0.14	0.51	-0.36
2001	3.0	2.8	2.0	2.0	0.97	0.99	0.77	0.79
2002	1.6	1.4	1.2	1.1	0.44	0.49	0.24	0.29
2003	0.8	1.2	0.2	0.8	0.63	-0.04	1.03	0.36
2004	1.5	1.7	2.3	2.6	-0.82	-1.12	-0.62	-0.92
2005	2.2	1.9	1.4	1.7	0.81	0.49	0.51	0.19
2006	2.2	1.9	2.0	2.6	0.24	-0.41	-0.06	-0.71
2007	2.3	2.0	1.9	2.4	0.42	-0.12	0.12	-0.42
2008	1.9	1.5	0.7	0.1	1.18	1.78	0.78	1.38
2009	-2.3	-2.5	-2.2	-2.8	-0.11	0.48	-0.28	0.31
2010	0.9	1.4	1.5	1.8	-0.59	-0.94	-0.07	-0.42
2011	1.4	1.7	1.7	2.2	-0.31	-0.84	-0.06	-0.59
2012	0.2	0.3	0.0	0.4	0.21	-0.17	0.33	-0.05
2013	-0.2	-0.1	0.3	0.6	-0.47	-0.80	-0.37	-0.70
2014	1.2	0.9	0.4	1.0	0.84	0.21	0.58	-0.05
2015	1.4	1.1	1.1	1.0	0.30	0.36	0.00	0.06
2016	1.6	1.3	1.1	1.0	0.51	0.56	0.22	0.26
2017*	1.4	1.3	1.9	2.4	-0.52	-0.98	-0.61	-1.07
2018*	2.0	2.1	1.6	1.7	0.42	0.28	0.52	0.38
				1999-2018 Average	0.25	-0.02	0.15	-0.11

^{*:} the latest definitive accounts are those for 2016. The national accounts for 2017 and 2018 are, respectively, semi-definitive and provisional. The "provisional account" column shows the GDP growth rate as an annual average as it is calculated from knowledge of the quarterly growth rates once they are published in the fourth quarter of every year. Compared with this version, the 2018 account has already been subject to a first adjustment on the annual provisional account published in mid-May 2019, with an upwards revision of growth from 1.6% to 1.7%.

Sources: INSEE, OFCE calculations and forecasts.

[1] The Consensus Forecast is a publication of Consensus Economics that compiles the forecasts of the world's leading forecasters on a large number of economic variables in about 100 countries. About 20 institutes participate for France.

[2] At the end of January 2019, the INSEE published the accounts for the 4th quarter of 2018, which provided a first assessment of growth for 2018 as a whole. At the end of May 2019, the accounts for the year 2018, calculated based on the provisional annual accounts published mid-May 2019, were revised a first time. A new revision of the 2018 accounts will take place in May 2020, and then a final one in 2021 with the publication of the definitive accounts. For more details on the National Accounts revision process, see Péléraux H., « Comptes nationaux : du provisoire qui ne dure pas », [The national accounts : provisional accounts that don't last], Blog de l'OFCE, 28 June 2018.

Europe's fiscal rules — up for debate

By Pierre Aldama and Jérôme Creel

At the euro zone summit in December 2018, the heads of state and government hit the brakes hard on the reform of fiscal governance: among the objectives assigned to the euro zone's common budget that they are wishing for, the function of economic stabilization has disappeared. This is unfortunate, since this function is the weak point of the fiscal rules being pursued by the Member States.

In a <u>recent article</u>, we assessed how governments use the fiscal tools at their disposal to respond to information about trends in the public debt or the economic cycle that is at their disposal when they make their budgetary decisions. Thus, instead of evaluating the properties of fiscal rules using data that may well be revised retrospectively, we evaluated them "in real time".[1]

Three main results emerged from our study. On the one hand, European governments ensure that their public debts are sustainable by improving their fiscal balance when the public debt increases. On the other hand, we found a trend towards fiscal consolidation at the bottom of the cycle in the euro area: fiscal policy is then rather destabilizing. Finally, euro area Member states have adopted a behaviour that was not found in the non-European countries in our sample: the euro zone Member states, unlike the others, continued to stabilize their public debts at the bottom of the cycle and during the crisis years. Thus the fiscal policy in the euro zone countries appears rather clearly to be untimely and inappropriate.

The results obtained as a whole for the euro area argue for a reform of Europe's fiscal rules, but not necessarily in the sense most commonly accepted. The issue of stabilizing the public debt does not seem to be essential in so far as this is already being taken care of by the fiscal policies being implemented. Rather, what is needed is to rebalance these fiscal policies in favour of macroeconomic stabilization, especially if no common mechanism — such as a euro zone budget — has been set up for this purpose. European fiscal policies need to be more flexible and less prescriptive, with a focus on the dynamics of macroeconomic stabilization. Since no progress is envisaged at the European level, national automatic stabilizers need to be reinforced, increasing tax progressivity and the responsiveness of social spending to changes in economic activity in order to deal with the next

cyclical downturn, both individually and collectively.

[1] One of if not the first article that focuses on evaluating fiscal policy using "real-time" data is by Golinelli and Momigliano (<u>Journal of Policy Modeling, 2006</u>). This literature is summarized in Cimadomo (<u>Journal of Economic Surveys, 2016</u>).

The imperative of sustainability economic, social, environmental

OFCE[1], ECLM[2], IMK[3], AKW[4]

It was during the climax of the so-called Eurozone sovereign debt crisis that we engaged into the independent Annual Growth Survey — the project was first discussed at the end of the year 2011 and the first report was published in November 2011. Our aim, in collaboration with the S&D group at the European Parliament, has been to challenge and question the European Commission contribution to the European Semester, and to push it toward a more realistic macroeconomic policy, that is to say less focused on the short term reduction of public debt and more aware of the social consequences of the crisis and the austerity bias. For 7 years, we argued against a brutal austerity failing to deliver public debt control, we warned against the catastrophic risk of deflation. We also alerted on the social consequences of the deadly combination of economic crisis, increased labor market flexibility and austerity on

inequalities, especially at the lower part of the income distribution. We cannot claim to have changed alone the policies of the Union, but we acknowledge some influence, although insufficient and too late to prevent the scars let by the crisis.

Today, there is a need to take this initiative a major step forward. The adoption of the <u>UNSDGs</u> calls for a new approach to economic governance and to economic growth. The measurement of economic performance needs to evolve into the measurement of well-being on all three accounts of sustainable development — economic, social and environmental. A broad range of policies have to be mobilized coherently to this effect, which must move fiscal policy from a dominant to an enabling and supportive role. Moreover, those policies need to be anchored on a consistent and inclusive long-term strategy, and should be monitored closely to check that they deliver sustainability.

So far, the EU has not properly embraced this agenda, and the still prevailing European Semester process is an inadequate process to lead the EU towards achieving the UNSDGs. In the same way as the iAGS challenged the dominant orthodoxy in the macroeconomic field, the <u>iASES 2019 - independent Annual Sustainable Economy Survey</u>, the new name of the iAGS - is our contribution to support a strategy towards sustainability and show the way.

The iASES 2019 scrutinizes the general outlook of the EU economy. The coming slowdown largely results from the gradual attenuation of the post-Great Recession recovery momentum and the convergence of growth rates towards a lower potential growth path. The slowdown of growth coincides with a revival of political turmoil — Brexit, Italy's public finances, the trade war and turbulences in some emerging countries. The upturn will come to an end at some point, and the euro area is not yet prepared for that, as imbalances persist and the institutional framework remains incomplete[5]. The euro area

has moved into a large trade surplus, which may not be sustainable. Nominal convergence remains an important issue that should be addressed by political willingness to coordinate wage development more actively, beginning with surplus countries. Moreover, the incomplete adoption of a Banking Union may be insufficient to ensure banking stability in case of adverse shocks. The ECB could have to come to the rescue with extended unconventional policies, complemented with automatic stabilisation measures working across borders within EMU.

The social situation has slightly improved in the EU since the worse of the crisis and, on average, the unemployment rates across European countries are back at their pre-crisis levels. However, differences across countries and sections of the population are still huge. Policy makers need to be aware of possible trade-offs and synergies between economic, social and environmental goals in general and the Sustainable Development Goals (SDGs) in particular[6]. In line with the SDGs and intended goals of the European Pillar of Social rights iASES aims at promoting policies — expanding social investments, pro-active industrial policies, reducing working time, increasing collective bargaining to limit primary formation of inequalities — that address these goals and overcome the direct and indirect negative consequences of unemployment.

Climate change is arguably the most serious challenge that we collectively face. Computing carbon budgets can be useful to warn policy-makers about the effort to be delivered in order to put society on the road to environmental sustainability. The iASES evaluates the "climate debt" which is the amount of money that will have to be invested or paid by countries for them not to exceed their carbon budget, leading to three key policy insights. There are few years left for major European countries before exhausting their carbon budget under the +2°C target. Consequently, the carbon debt should be considered as one of the major issues of the decades to come since in the

baseline scenario it represents about 50% of the EU GDP to stay below $+2^{\circ}C[7]$. Framing the climate question in the words of debt is deliberate as the concept of excessive deficit applies today totally to the procrastination we demonstrate there.

- [1] Directed by Xavier Timbeau with Guillaume Allègre, Christophe Blot, Jérôme Creel, Magali Dauvin, Bruno Ducoudré, Adeline Gueret, Lorenzo Kaaks, Paul Malliet, Hélène Périvier, Raul Sampognaro, Aurélien Saussay, Xavier Timbeau.
- [2] Jon Nielsen, Andreas Gorud Christiansen.
- [3] Peter Hohlfeld, Andrew Watt.
- [4] Michael Ertl, Georg Feigl, Pia Kranawetter, Markus Marterbauer, Sepp Zuckerstätter.
- [5] See « Some Challenges Ahead for the EU », OFCE Policy Brief, n°49, February 5,2019.
- [6] See « <u>Social Sustainability: From SDGs to Policies</u> », *OFCE Policy Brief*, n° 50, February 5, 2019.
- [7] See "An explorative evaluation of climate debt", OFCE Policy Brief, n° 45, December 11, 2018.

Business investment hurt by Brexit

By <u>Magali Dauvin</u>

At a time when the outlook for world trade outlook remains glum [1], British domestic demand is struggling to remain

dynamic: household consumption has run out of steam at the end of the year, while investment fell by 1.4 points in 2018.

This latest fall can be attributed almost entirely to the investment of non-financial corporations [2] (55% of GFCF in volume), which fell consecutively during the four quarters of the year (Figure 1), for a total fall of -3.7% in 2018.

Investment can be predicted by an error-correction model [3], and the one used for the investment forecasts of non-financial firms in the United Kingdom benefits from an adjustment that can be considered "correct" in terms of its explanatory power (86%) over the pre-referendum period (1987Q2 — 2016Q2). If we simulate the trajectory of investment following the 2016 referendum (in light blue), we can see that it deviates systematically from the investment data reported by the ONS (dark blue) [4].

This result is consistent with the results found in the recent literature, which also show that the models have consistently tended to overestimate the investment rate of UK firms since 2016 [5]. The gap has steadily risen in 2018, from 0.5 percentage point of GDP in 2017, to almost one point of GDP in the last quarter.



Figure. Evolution and simulation of investment by non-financial corporations in the United Kingdom

Source: ONS, OFCE calculations.

What explains the gap? We interpret this deviation as the effect of the uncertainty arising from Brexit, particularly that on the future trade arrangements between the UK and the EU. Nearly half of Britain's foreign trade comes from or goes to the single market. Although the inclusion of an uncertainty indicator (Economic Policy Uncertainty – EPU, see Bloom et al., 2007) in the investment equation failed to identify it clearly, several studies on data from UK firms point in this direction. First, periods of heightened uncertainty moved in line with significantly lower investment after the 2008 crisis (Smietbanka, Bloom and Mizen, 2018). In a scenario without a referendum (no Brexit), the transition to a regime with renegotiated customs tariffs would have had the effect of:

- Reducing the number of companies entering the European market and increasing the number exiting (Crowley, Exton and Han, 2019);
- Weighing on business investment with the prospect of tariffs similar to those prevailing under WTO rules (Gornicka, 2018).

The reduction in investment "cost" 0.3 percentage points of GDP in 2018, and this cost could rise as second-round effects are taken into account (which is not the case here). If the uncertainties do not rise, the "Brexeternity" — an expression used to characterize the relationship between the United Kingdom and the European Union, that is to say, inextricable — could have a much more depressing effect on Britain's future growth and its citizens' standard of living.

- [1] The WTO composite indicator has stayed below (96.3) its long-term trend (100) since mid-2018.
- [2] Reported by the Office of National Statistics (ONS) as Business Investment. Non-financial corporations partially or wholly owned by the government are included in this field, but they account for less than 4% of the total. This measure of investment does not include spending on housing, land,

existing buildings or the costs related to the transfer of ownership of non-produced assets.

- [3] See the article by Ducoudré, Plane and Villemot (2015) in the *Revue de l'OFCE*, for more information on the strategy adopted.
- [4] A slight gap can be seen from 2015, when the law on the referendum was adopted.
- [5] In particular the work of Gornicka (2018).

On French corporate immaterial investment

By <u>Sarah Guillou</u>

A note on the <u>immaterial singularity of business investment in France</u> from 26 October 2018 highlighted the significant scale of investment in intangible assets by companies in France. In comparison with its partners, who are similar in terms of productive specialization, the French economy invests relatively more in Research and Development, software, databases and other types of intellectual property. Looking at gross fixed capital formation (GFCF) excluding construction, the share of intangible investment reached 53% in 2015, compared to 45% in the United Kingdom, 41% in the United States, 32% in Germany and 29% in Italy and Spain.

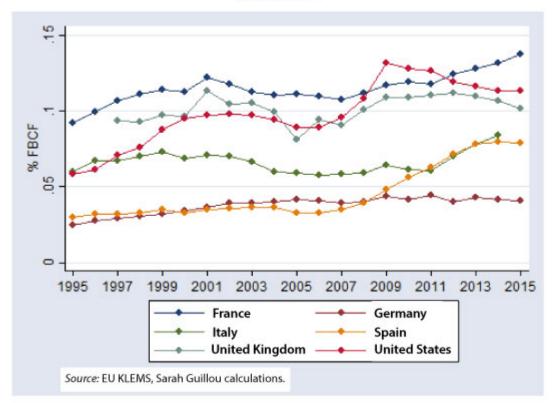
These results are corroborated by statistics that evaluate other dimensions (INTAN basis), outside the national accounts, of intangible investments, such as those in organization, training and marketing. France is not lagging behind its

partners in this type of asset either (see Guillou, Lallement and Mini, 2018).

As for the national accounts, these include two main intangible assets: R&D expenditure and expenditure on software and databases. In terms of R&D, French investment performance is consistent with the technological level and structure of its production specialization. If the French economy had a larger manufacturing sector, its spending on R&D would be much larger. What is less coherent is the extent and intensity of investment in software and databases, to such an extent that one cannot help but wonder whether this immaterial dimension of investment is almost unreal.

Figure 1 illustrates that "Software and databases" investment is larger in France than in the rest of the European countries. The share is, however, close to the levels observed in the United Kingdom and the United States. Of course, this share reflects the weakness of other targets for investment such as machinery and equipment specific to the manufacturing sector (see the earlier note on investment).

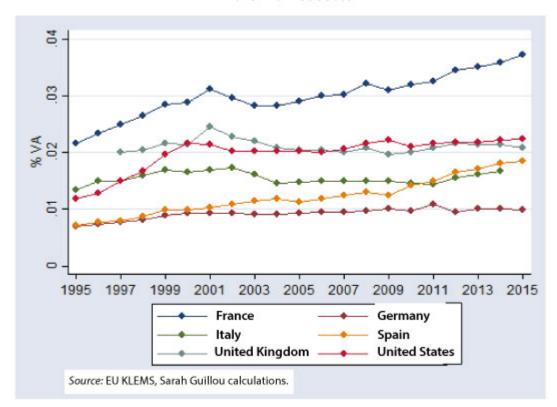
Figure 1. Share of GFCF in software and databases in total market sector GFCF



In terms of

the rate of investment, that is to say, investment expenditure as a ratio of value added of the market economy, the dynamism of the French economy in terms of software and databases is confirmed: France clearly outdistances its partners.

Figure 2. Rate of investment in software and databases in the market sector



This also raises questions because it reveals a gap of 2 percentage points of the VA relative to the United States and 3 points relative to Germany. French companies invested 33 billion euros more in software and database than did German companies in 2015. Note that in 2015 total GFCF excluding construction was 285 billion euros in Germany and 197 billion in France. Moreover, the gap in the investment rate across all types of assets in France was 4 percentage points vis-à-vis Germany (see Guillou, 2018, page 20).

This gap can be explained only under the conditions, 1) that the production function of the French economy uses more software and databases than its partners, or 2) that the GFCF software and databases item is either artificially valued in relation to the current practices of France's partners, which may be the case, or because the value of the software asset is more important in France (companies may choose to put spending on software in current spending), either because the asset value is greater (which is possible because part of this

value, that of software produced in-house, is up to the discretion of the companies).

Understanding this gap is of considerable importance, because it is decisive for making a diagnosis of the state of French corporate investment and the state of its digitization (see Gaglio and Guillou, 2018). The aggregate macroeconomic value of GFCF includes GFCF in software; if this is overestimated, it has implications for the macroeconomic balance and the contribution of GFCF to growth. The measurement of total factor productivity would also be affected, as the overestimation of capital (fuelled by investment) would lead to underestimating residual technical progress. So not only would the investment effort of French companies be overestimated, but the diagnosis of the nature of growth would also be off.

But there are reasons to question how real this gap is. In other words, shouldn't the immateriality of GFCF be viewed as a flaw in reality?

On the one hand, it is not clear that France's productive specialization justifies such overinvestment in software and databases. For example, the comparison with Germany, the United Kingdom, Italy, the United States and Spain shows specialization that is relatively close, with the exception of the manufacturing sector, which has a much greater presence in Germany. The share of the "Information and Communication" sector in which digital services are located correlates well with GFCF in software, but this sector is not significantly more present in France. It represents 6.5% of the value added of the market economy, compared to 6% in Germany and 8% in the United Kingdom (see Guillou, 2018, page 30).

On the other hand, the data from the input-output tables on consumption by branch of goods and services coming from the digital publishing sector (58) — a sector that concentrates the production of software — do not corroborate French

superiority. The following graphs show that, whether considering domestic consumption (Figure 3) or imported (Figure 4), intermediaries' consumption of digital services in France does not confirm the French domination recorded for GFCF in software and databases. On the contrary, these two graphs show that the French economy's consumption of inputs from the digital publishing sector is not especially high and even that domestic consumption has fallen.

While the overlap between "software and databases" on the one hand and "digital publishing services" on the other is not perfect, there should not be a contradiction between the trends or the hierarchies between countries — unless software expenditure consists mainly of software produced in-house, in which case it will be recorded as assets rather than as consumption of inputs from other sectors.

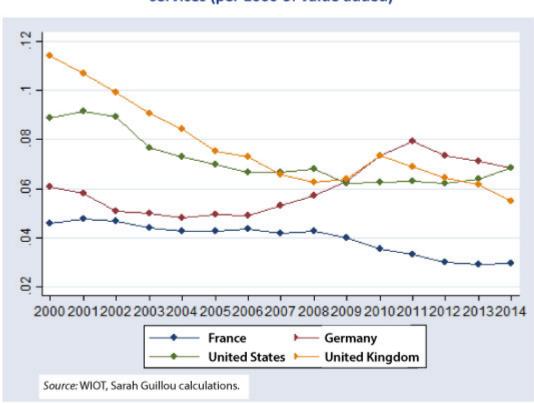
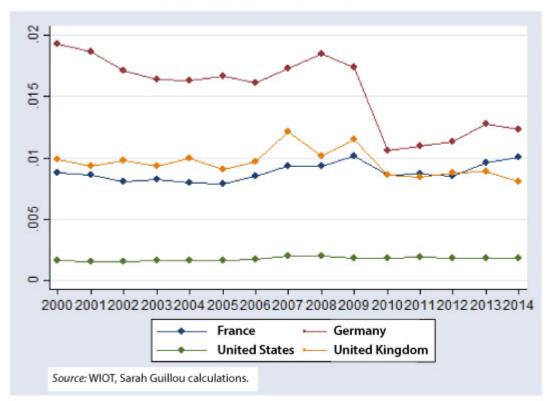


Figure 3. Consumption of digital publishing companies of domestic services (per 1000 of value added)

Figure 4. Consumption of digital publishing intermediaries of imported services (per 1000 of value added)



As a result,

investment in software and databases would be mainly the result of in-house production, whose capital asset value (recorded as GFCF) is determined by the companies themselves. Should we conclude that GFCF is overvalued? This is a legitimate question. It calls for more specific investigation by investor and consumer sectors in order to assess the extent of overvaluation relative to economies comparable to France.

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The euro is 20 — time to grow up

By Jérôme Creel and Francesco Saraceno [1]

At age twenty, the euro has gone through a difficult adolescence. The <u>success of the euro</u> has not been aided by a series of problems: growing divergences; austerity policies with their real costs; the refusal in the centre to adopt expansionary policies to accompany austerity in the periphery countries, which would have minimized austerity's negative impact, while supporting activity in the euro zone as a whole; and finally, the belated recognition of the need for intervention through a quantitative easing monetary policy that was adopted much later in Europe than in other major countries; and a fiscal stimulus, the Juncker plan, that was too little, too late.

Furthermore, the problems facing the euro zone go beyond managing the crisis. The euro zone has been growing more slowly than the United States since at least 1992, the year the Maastricht Treaty was adopted. This is due in particular to the inertia of economic policy, which has its roots in the euro's institutional framework: a very limited and restrictive mandate for the European Central Bank, along with fiscal rules in the Stability and Growth Pact, and then in the 2012 Fiscal Compact, which leave insufficient room for stimulus policies.

In fact, Europe's institutions and the policies adopted before and during the crisis are loaded down with the consensus that emerged in the late 1980s in macroeconomics which, under the assumption of efficient markets, advocated a "by the rules" economic policy that had a necessarily limited role. The management of the crisis, with its fiscal stimulus packages and increased central bank activism, posed a real challenge to this consensus, to such an extent that the economists who were supporting it are now questioning the direction that the discipline should take. Unfortunately, this questioning has only marginally and belatedly affected Europe's decision-makers.

On the contrary, we continue to hear a discourse that is meant to be reassuring, i.e. while it is true that, following the combination of austerity policies and structural reforms, some countries, such as Greece and Italy, have not even regained their pre-2008 level of GDP, this bitter potion was needed to ensure that they emerge from the crisis more competitive. This discourse is not convincing. Recent literature shows that deep recessions have a negative impact on potential income, with the conclusion that austerity in a period of crisis can have long-term negative effects. A glance at the World Economic Forum competitiveness index, as imperfect as nevertheless shows that none of the countries that enacted austerity and reforms during the crisis saw its ranking improve. The conditional austerity imposed on the countries of the periphery was doubly harmful, in both the long and short terms.

In sum, a look at the policies carried out in the euro zone leads to an irrevocable judgment on the euro and on European integration. Has the time come to concede that the Exiters and populists are right? Should we prepare to manage European disintegration so as to minimize the damage?

There are several reasons why we don't accept this. First, we do not have a counterfactual analysis. While it is true that

the policies implemented during the crisis have been calamitous, how certain can we be that Greece or Italy would have done better outside the euro zone? And can we say unhesitatingly that these countries would not have pursued free market policies anyway? Are we sure, in short, that Europe's leaders would have all adopted pragmatic economic policies if the euro had not existed? Second, as the result of two years of Brexit negotiations shows, the process of disintegration is anything but a stroll in the park. A country's departure from the euro zone would not be merely a Brexit, with the attendant uncertainties about commercial, financial and fiscal relations between a □□27 member zone and a departing country, but rather a major shock to all the European Union members. It is difficult to imagine the exit of one or two euro zone countries without the complete breakup of the zone; we would then witness an intra-European trade war and a race for a competitive devaluation that would leave every country a loser, to the benefit of the rest of the world. The costs of this kind of economic disorganization and the multiplication of uncoordinated policies would also hamper the development of a <u>socially and environmentally sustainable</u> European policy, as the European Union is the only level commensurate with a credible and ambitious policy in this domain.

To say that abandoning the euro would be complicated and/or costly, is not, however, a solid argument in its favour. There is a stronger argument, one based on the rejection of the equation "euro = neoliberal policies". Admittedly, the policies pursued so far all fall within a neoliberal doctrinal framework. And the institutions for the European Union's economic governance are also of course designed to be consistent with this doctrinal framework. But the past does not constrain the present, nor the future. Even within the current institutional framework, different policies are possible, as shown by the (belated) activism of the ECB, as well as the exploitation of the flexibility of the Stability

and Growth Pact. Moreover, institutions are not immutable. 2012, six months sufficed to introduce a new fiscal treaty. It headed in the wrong direction, but its approval is proof that reform is possible. We have worked, and we are not alone, on two possible paths for reform, a dual mandate for the ECB, and a golden rule for public finances. But other possibilities could be mentioned, such as a **European unemployment insurance**, a <u>European budget</u> for managing the business cycle, modification of the European fiscal rules. On this last point, the proposals are proliferating, including for a rule on expenditures by fourteen Franco-German economists, or the replacement of the 3% rule by a coordination mechanism between the euro zone members. Reasonable proposals are not lacking. What is lacking is the political will to implement them, as is shown by the slowness and low ambitions (especially about the euro zone budget) of the decisions taken at the euro zone summit on 14 December 2018.

The various reforms that we have just mentioned, and there are others, indicate that a change of course is possible. While some policymakers in Europe have shown stubborn persistence, almost tantamount to bad faith, we remain convinced that neither European integration nor the euro is inevitably linked to the policies pursued so far.

[1] This post is an updated and revised version of the article "Le maintien de l'euro n'est pas synonyme de politiques néolibérales" [Maintaining the euro is not synonymous with neoliberal policy], which appeared in *Le Monde* on 8 April 2017.

Brexit: the November 25th agreement

By <u>Catherine Mathieu</u> and <u>Henri Sterdyniak</u>

The United Kingdom will leave the European Union on 29 March 2019 at midnight, two years after the UK government officially announced its wish to leave the EU. Negotiations with the EU-27 officially started in April 2017.

On 8 December 2017, the negotiators for the European Commission and the British government signed a joint report on the three points of the withdrawal agreement that the Commission considered to be a priority [1]: the rights of citizens, a financial settlement for the separation, and the absence of a border between Ireland and Northern Ireland. The European Council meeting of 14-15 December had accepted the British request for a transitional period, with the end set for 31 December 2020 (so as to coincide with the end of the programming of the current European budget). Thus, from March 2019 to the end of 2020, the United Kingdom will have to respect all the obligations of the single market (including the four freedoms and the competence of the European Court of Justice — CJEU), while no longer having a voice in Brussels. This agreement opened the second phase of negotiations.

These negotiations culminated on 14 November 2018 in a withdrawal agreement[2] (nearly 600 pages) and a political declaration on future relations between the EU-27 and the United Kingdom, which was finalized on 22 November 22 [3] (36 pages). The two texts were approved on 25 November at a special meeting of the European Council [4] (all 27 attending), which adopted three declarations on that occasion[5]. The withdrawal agreement and the political declaration must now be subject to the agreement of the European Parliament, which should not be a problem and, what

is much more difficult, the British Parliament.

The withdrawal agreement corresponds to Article 50 of the Treaty on the Functioning of the European Union (TFEU). It is a precise international agreement, which has legal value; it must be enforced by the UK courts, under the authority of the CJEU as far as EU laws are concerned. It takes up the points already settled by the negotiations in December 2017: the rights of British citizens in EU countries and the rights of EU citizens in the UK; and the financial settlement. It has three protocols concerning Ireland, Cyprus and Gibraltar. Any disagreements on the interpretation of the agreement will be managed by a joint committee and, if necessary, by an arbitration tribunal. The latter will have to consult the CJEU if this involves a question that one of the parties considers to be relevant to EU law. In July 2020, a decision could be reached to extend the transition period beyond 31 December 2020: this would require a financial contribution from the UK.

A safeguard clause will be applied to avoid the reestablishment of a physical border between Northern Ireland and the Republic of Ireland (the "backstop"): the United Kingdom will remain a member of the Customs Union if no other agreement has been concluded before the end of the transition period, and for an indefinite period, until such an agreement is reached. This agreement must be approved by the joint committee. The Customs Union will cover all goods except fisheries (and aquaculture) products. The United Kingdom will not have the right to apply a trade policy that differs from that of the Union. British products will enter the single market freely, but the UK will align with EU rules on state aid, competition, labour law, social protection, the environment, climate change and taxation. In addition, Northern Ireland will continue to align with single market rules on VAT, excise duties, health rules, etc. Controls could be put in place on products entering Northern Ireland from the rest of the United Kingdom (in particular for agricultural

products), but these controls would be carried out by the UK authorities.

Thus, trapped by the issue of the Irish border, the United Kingdom must forgo for an indefinite period any independent trade policy. It will have to align itself with European regulations in many areas, subject to the threat of recourse to the CJEU.

The 22 November Joint Political Declaration outlines the possible future relations between the UK and the EU-27. On the one hand, it clearly corresponds to the goal of the close, specific and balanced relationship that the British have demanded. On the other hand, the UK is making a number of commitments that rule out any possible strategy of being a "tax and regulatory haven".

Article 2, for instance, states that the two parties intend to maintain high standards for the protection of worker and consumer rights and the environment. Article 4 affirms respect for the integrity of the single market and the four freedoms for the EU-27, and for the United Kingdom the right to conduct an independent trade policy and to put an end to the free movement of persons.

In general, the Declaration states that both parties will seek to cooperate, to discuss, and to take concerted action; that the United Kingdom will be able to participate in Union programmes in the fields of culture, education, science, innovation, space, defense, etc., under conditions to be negotiated.

Article 17 announces the establishment of an ambitious, wideranging, comprehensive and balanced free trade agreement. Articles 20 to 28 proclaim the desire to create a free trade area for goods, through in-depth cooperation on customs and regulatory matters and provisions that will put all participants on an equal footing for open and fair

competition. Customs duties (as well as border checks on rules on origin) will be avoided. The United Kingdom will strive to align with European rules in the relevant areas[6]. This kind of cooperation on technical and health standards will allow British products to enter the single market freely. In this context, the Declaration recalls the intention of the EU-27 and the UK to replace the Irish backstop with another device that ensures the integrity of the single market and the absence of a physical border in Ireland.

In terms of services and investment, the two parties are considering broad and ambitious trade liberalization agreements. Regulatory autonomy will be maintained, but this must be "transparent, efficient, compatible to the extent possible". Cooperation and mutual recognition agreements will be signed on services, in particular telecommunications, transport, business services and internet commerce. The free movement of capital and payments will be guaranteed. financial matters, equivalence agreements will be negotiated; cooperation will be established in the domain of ∏∏regulation and supervision. Intellectual property rights will be protected, in particular as regards protected geographical indications. Agreements will be signed on air, sea, and land transport and on energy and public procurement. The parties pledge to cooperate in the fight against climate change and on sustainable development, financial stability, and the fight against trade protectionism. Travel for tourism or scientific, educational or business motives will not be affected. An agreement on fisheries must be signed before 1 July 2020.

Provisions will have to cover state aid and standards on competition, labour law, social protection, the environment, climate change and taxation in order to ensure open and fair competition on a level playing field.

The text provides for coordination bodies at the technical, ministerial and parliamentary levels. Every six months, a high-level conference will review the agreement.

Negotiations will continue on trade so as to ensure compatibility between the integrity of the single market and the Customs Union and the UK's development of an independent trade policy.

On the one hand, the text provides for a close and special partnership, as requested by the United Kingdom; on the other hand, the UK pays for this by its commitment to respect European rules; finally, problematic issues still need to be negotiated, including fishing rights, an independent British trade policy, and avoiding the Irish backstop. On 25 November, the European Council wanted to adopt two declarations. The first emphasizes the importance of reaching an agreement on fisheries before the end of the transitional period and making it possible to maintain the access of EU-27 fishermen to British maritime waters. It also links the extension of the transitional period to compliance by the United Kingdom with its obligations under the Irish protocol. It recalls the conditions that the EU-27 had set on 20 March 2018 for an agreement: "The divergence in external tariffs and internal rules, as well as the absence of common institutions and a common legal system, require checks and balances and controls to safeguard the integrity of the EU single market and the UK market. Unfortunately, this will have negative economic consequences, particularly in the United Kingdom ... A free trade agreement cannot offer the same advantages as the status a Member State." The second Declaration states that Gibraltar will not be included in the future trade agreement negotiated between the UK and the EU-27; a separate agreement will be necessary and subject to Spain's prior approval. These declarations will not make it easy for Theresa May to win the approval of the UK Parliament.

It is necessary to highlight two points that were barely mentioned in the negotiations. This privileged partnership could serve as a model for relations with other countries. The EU has signed many customs union agreements with its

neighbors, the countries of the European Economic Area (Norway, Iceland, Lichtenstein), as well as Switzerland, Ukraine, Georgia and Moldova. Five countries are candidates for entry (Albania, Montenegro, Serbia, Kosovo and Northern Macedonia). Perhaps these partnerships could be formalized in a third circle around the EU?

Does not the commitment to fair competition impose some level of tax harmonization in the EU-27, particularly with respect to the rates and terms of corporation tax? Was the EU-27 right to support the Irish Republic without some quid pro quo? It is unclear how the EU-27 could accuse the UK of practicing unfair competition when it tolerates the practices of Ireland, the Netherlands and Luxembourg. Likewise, the insistence on arrangements that prevent the UK from engaging in unfair tax and social competition contrasts with the EU's laxity both in its relations with third countries and in the control of the internal devaluation policies of certain member countries (e.g. Germany).

On balance, the United Kingdom gets to regain its national sovereignty, to cease being subject to the CJEU, and to no longer need to respect the freedom of establishment of workers from EU countries. In return, it will have no voice in Brussels.

The business community has welcomed the proposal as it avoids the risks of No Deal and announces a free trade agreement between the UK and the EU that would impose few restrictions on trade.

To date, there is no certainty that the UK parliament will approve the deal proposed by Theresa May and the EU-27 negotiators. Theresa May must find a majority for a compromise deal. She will encounter opposition from Conservative hard Brexiteers who are prepared to leave without an agreement so that the United Kingdom can "regain control", engage in trade negotiations with third countries, get out from under European

regulations, and begin a policy of deregulation that would make the UK a tax and regulatory haven. But the UK is already one of the countries where the regulation of the goods and labor markets is the most flexible. A sharp cut in taxes would imply further cuts in social spending, contrary to the promises of the Conservative Party. And leaving with no deal would erect barriers to the UK's access to the single market for its products and services. Theresa May will clash with the Irish Unionist Party (DUP), which is opposed to any differences in the treatment of Northern Ireland, as well as with Scottish nationalists, who want Scotland to remain in the She will also have to confront the Remainers (Conservatives, Labour and Liberal Democrats) who, buoyed by some recent polls, are calling for a new referendum. While Jeremy Corbyn is not calling into question the result of the referendum, many Labour MPs could vote against the text, even if they are supporters of a soft Brexit, as the Treaty organizes. They hope to provoke early elections that could allow them to return to power. They claim they will resume negotiations after that, making every effort to obtain a better deal for the United Kingdom, which would allow it to enjoy "the same advantages as at present as members of the Customs Union and the Single Market" and to control migration. But the EU-27 has clearly refused any resumption of negotiations, and some Labour forces want a new referendum ... Theresa May's hope is that fear of a No deal will be strong enough to win approval for her compromise.

If, initially, Brexit seemed to weaken the EU, by showing that it was possible for a country leave, the EU has demonstrated its unity in the negotiations. It became clear quickly that leaving the EU was painful and expensive. The EU is a cage, more or less gilded, which it is difficult, if not impossible, to escape.

[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. See Catherine Mathieu and Henri Sterdyniak, "Brexit: Pulling off a success", OFCE blog, 6 December 2017.

[2]

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ft withdrawal agreement 0.pdf

[3]

https://www.consilium.europa.eu/media/37059/20181121-cover-political-declaration.pdf

[4]

https://www.consilium.europa.eu/media/37114/25-special-euco-fi
nal-conclusions-fr.pdf et

[5]

https://www.consilium.europa.eu/media/37137/25-special-euco-st atement-fr.pdf

[6] The vagueness is in the text: "The United Kingdom will consider aligning with Union rules in relevant areas".

Non-performing loans — A danger for the Banking Union?

By <u>Céline Antonin</u>, <u>Sandrine Levasseur</u> and <u>Vincent Touzé</u>

The establishment of the third pillar of the Banking Union, namely the creation of a European deposit insurance scheme, has been blocked up to now. Some countries — like Germany and

the Netherlands — are arguing that the risk of bank default is still too heterogeneous in the euro zone to allow deposit guarantees to be pooled.

Our article, L'Union bancaire face au défi des prêts non 'performants' ["The Challenge of Non-performing Loans for the Banking Union"], focuses on how to solve the "problem" of non-performing loans (NPLs) in a way that can break this deadlock and finally complete the Banking Union. This is a crucial step in order to restore confidence and allow the emergence of an integrated banking market.

Our review of the current situation shows that:

- 1. The level of NPLs is still worrying in some countries. The situation is alarming in Cyprus and Greece, where unprovisioned NPLs represent more than 20% of GDP, whereas the situation is "merely" worrying for Slovenia, Ireland, Italy and Portugal, where unprovisioned NPLs are between 5% and 8% of GDP;
- 2. In total, at end 2017, the amount of unprovisioned NPLs for the euro area came to 395 billion euros, which is equivalent to 3.5% of euro area GDP. On this scale, the "problem" of non-provisioned NPLs thus seems more modest.

Looking beyond private solutions such as debt forgiveness, provisioning, securitization and the creation of bad banks, our conclusion is that it is the public authorities at the European level who ultimately have the most effective means of action. They have multiple levers at their disposal, including the definition of the relevant regulatory and institutional framework; supervision by the ECB, which could be extended to more banks; and not least monetary and fiscal policies at the euro zone level, which could be mobilized to buy up doubtful debt or enter the capital of banks experiencing financial distress.

Why some countries have fared better than other after the Great Recession

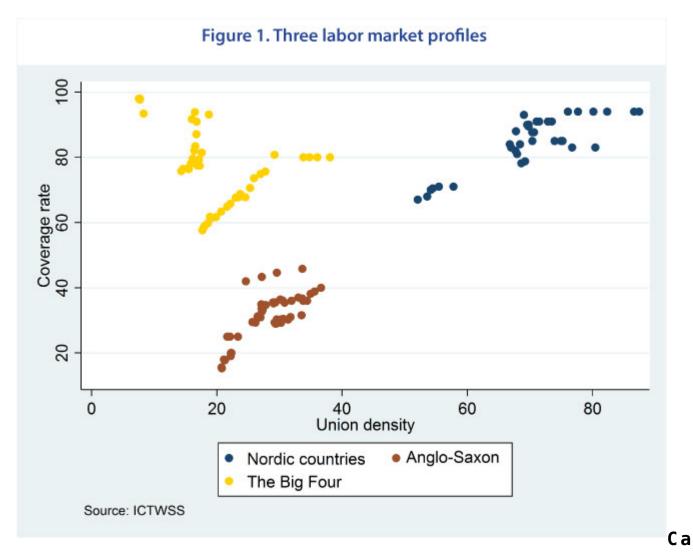
by Aizhan Shorman and Thomas Pastore

The European labor market is characterized by a great economical and institutional divergence. On the one hand, there is the German miracle constituted in part by a decrease in unemployment rate during the Great Recession. On the other, there is high unemployment in southern European countries. For example, 27% in Spain in comparison with 6% in Germany in 2013. Southern European countries tended to either increase or retain their higher measures of centralization, especially in bargaining practices. Therefore, some credit decentralization policies, such as the Hartz reforms, for Germany's success. However, this economic divergence cannot be explained solely by opposing centralization decentralization, accentuating the benefits of flexibility in the latter and the drawbacks of rigidity in the former. The most evident counterexamples to this dichotomy are the Scandinavian countries that experience low unemployment with high centralization.

It is important to note that in our analysis we focus on centralization in wage bargaining. Our centralization measure relies on union density rate, coverage rate (percentage of all employees covered by collective bargaining agreements out of all wage and salary earners in employment with the right to bargaining), and extension rate (mandatory extension of collective agreements to non-organized employers).

Three Profiles of the Labor market

Utilizing our definition of centralization consisting out of the three variables of measurement, we identified three profiles of the labor market: decentralized, centralized, and intermediate. [1] As seen in Figure 1, the first group consists of mostly Anglo-Saxon countries, the second mostly of Scandinavian ones, and the third mostly of the four western European countries with the highest GDP in the EU (France, Germany, Spain, and Italy).



lmfors-Driffill and the Great Recession

Calmfors and Driffill (1988) presented their hypothesis of a

concave non-monotonic relationship between wage bargaining centralization and macroeconomic performance.[2] The "hump-shaped" relationship hypothesized by the two authors proves itself true with our results and sheds light on the different economic and institutional trajectories of European countries.

On the left side of the curve of Figure 2, one finds Anglo-Saxon countries with low un-employment rates, due to flexible real wage adjustments in financial shocks. On the right side of the curve, one finds Scandinavian countries with similar macroeconomic performance as that of the Anglo-Saxon countries but this group has very centralized wage setting practices for both employees and employers implemented at the national level. Between the two groups, the intermediate countries find themselves at the top of the hump with higher unemployment rates in comparison to the initial two groups. Consequently, the countries in the middle that aimed to strike a balance have become subject to the disadvantages of both centralized and decentralized systems: wage rigidity that restricts flexibility and adaptability needed in financial shocks, and security provided by collective or national wage setting practices.

Figure 2. The bell curve during the Great Recession (2008-2014)

Note: PC1 axis is an aggregate measure of centralization obtained through the principal components analysis; it includes measures of coverage rate, extension rate of collective bargaining agreements, and union density.

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fferent trajectories along the hump-shaped curve

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source: ICTWSS, OECD

Our results render the Calmfors-Driffill hypothesis evermore pertinent in the context of the Great Recession. The two most striking countries as outliers on Figure 3 are Germany (DE) and Italy (IT). From the 1990's Germany's trajectory has been very unique as one can trace its movement along the curve over the years (Figure 3). Germany has left its group of the "Big Four" and moved along the curve toward the decentralized Anglo-Saxon group. This shift is due to the decentralization policies implemented after Reunification and reinforced by the Hartz laws (2003-2005). The country has experienced deunionization and a sharp decline in union density over the last 20 years. Italy, on the other hand, has maintained high unemployment rates throughout the sampled period and is

characterized by less ambitious decentralization. The data supports the notion of a non-monotonic concave relationship between centralization and macroeconomic performance.

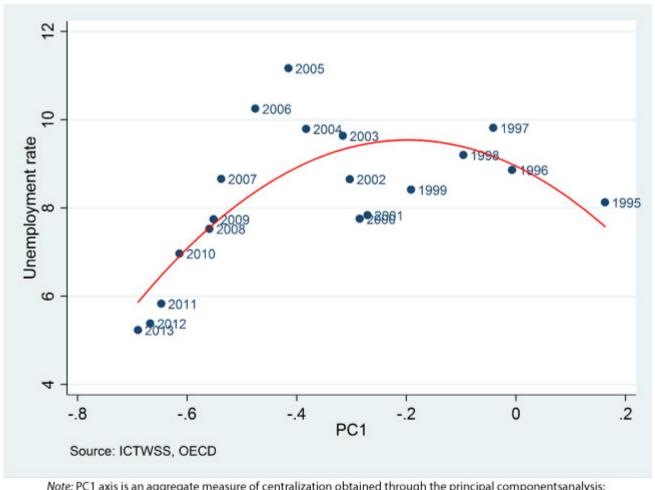


Figure 3. Trajectory of Germany along the bell curve

Note: PC1 axis is an aggregate measure of centralization obtained through the principal components analysis; it includes measures of coverage rate, extension rate of collective bargaining agreements, and union density.

stitutions constitute an important component of countries' macroeconomic performances. Considering the idiosyncrasies of every country, it is impossible to prescribe any one centralized or decentralized policy, but our analysis shows that there are multiple different versions of economies that can be tailored to the differing characteristics of European countries and that could yield in the long-term favorable macroeconomic results.

[1] Thomas Pastore and Aizhan Shorman. "Calmfors and Driffill Revisited: Analysis of European Institutional and Macroeconomic Heterogeneity". In: Sciences-Po OFCE Working

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Paper (October 2018).

[2] Lars Calmfors and John Driffill. "Bargaining Structure, Corporatism and Macroeconomic Performance". In:

Economic Policy 3.6 (1988), pp. 13-61.
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Italy's debt: Is the bark worse than the bite?

By <u>Céline Antonin</u>

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.

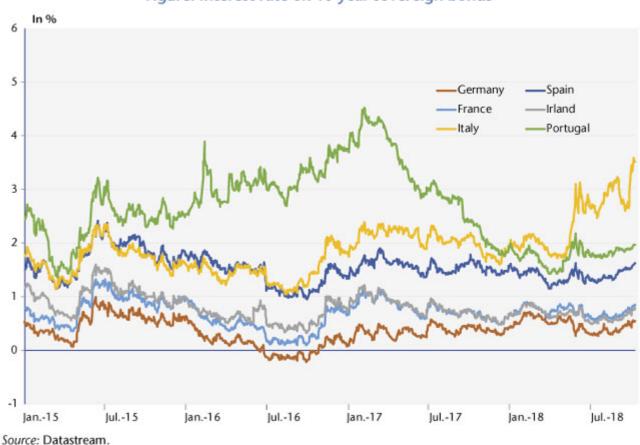


Figure. Interest rate on 10-year sovereign bonds

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).

Α

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[3] 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
Public debt /GDP (dt)	131.8%	131.2%	130.3%	129.5%
Apparent interest rate on the debt (i)	2.9%	2.7%	2.9%	3.0%
GDP growth in value (g)	2.2%	2.1%	2.3%	2.1%
GDP growth in volume	1.6%	1.0%	1.1%	1.0%
GDP deflator	0.6%	1.1%	1.2%	1.1%
Primary deficit in % of GDP (s _t)	1.5%	1.8%	1.5%	1.6%
Public deficit in % of GDP	-2.3%	-1.8%	-2.4%	-2.4%
Debt-service charge in % of GDP	3.8%	3.6%	3.8%	4.0%
Projected public debt/GDP (dt+1)	131.2%	130.3%	129.5%	129.1%
Apparent interest rate stabilizing the debt	3.4%	3.4%	3.5%	3.3%
Primary deficit stabilizing the debt	0.9%	0.8%	0.8%	1.1%
Public deficit stabilizing the debt	-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: $d_{t+1} = d_t \frac{(1+t)}{(1+g)} - s_t$ whith 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.
- For more information, see the forthcoming 2018-2020 forecast for the global economy, *Revue de l'OFCE*, (October 2018).
- $\frac{[3]}{2}$ Spontaneous growth for a given year is defined as the sum of potential growth and the closing of the output gap.