

# The euro area at the edge of the downturn: Is there any room for manoeuvre?

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This *Policy brief* presents the last OFCE forecasts on the euro area countries and addresses the issue of margins for manoeuvre to cope with an extended period of economic slowdown in the area. Will fiscal rules fetter policy reaction? We forecast a growth rate of 1.2%, but negative risks remain substantial. We then discuss public debt evolution and compute the fiscal policies necessary to reach a 60% public debt over GDP target in 2040. The fiscal consolidation appears unrealistic in some countries, questioning the credibility of this target. In addition, we investigate the (moderate) effect of interest rate on the fiscal consolidation requirement. Finally, the very notion of fiscal space will depend on the speed of adjustment of public debt and on the level of interest rates.

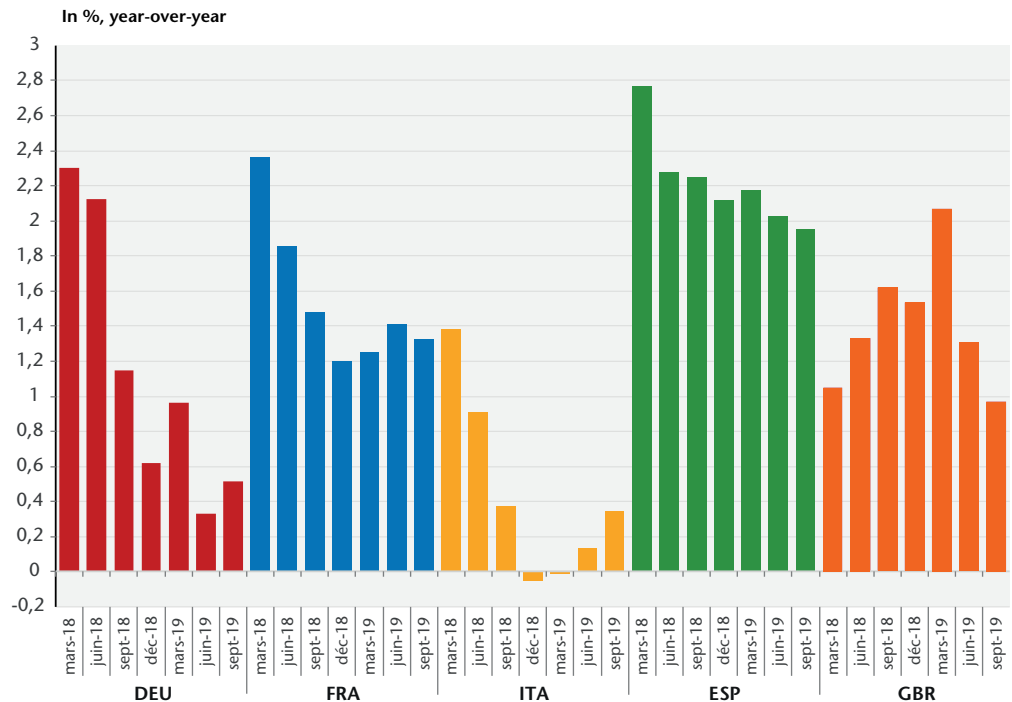
Economic activity in the euro area has shown some signs of cooling down since 2017. The year-over-year GDP has increased by 1.2% in 2019-Q3 against 1.6% a year ago and 3% at the end of 2017. The rise in US tariffs, Brexit's negotiations, the slowing down of Chinese demand and the crisis in the automobile industry have contributed to the deterioration of the confidence indicators, mainly in the manufacturing sector, have increased uncertainty and pushed down world trade.

The economic outlook is still expected to be sluggish in 2020 with growth at 1.2% in the euro area. According to our forecasts, European countries would avoid a recession, but risks of a further decline in growth remain important and raise the question of fiscal and monetary rooms for manoeuvre to dampen additional shocks or a more pronounced slowdown. Fiscal policies are actually constrained by rules, including the aim to reduce the debt-to-GDP ratio to 60%. Under the current rules, the existence of fiscal space relies on former consolidation and shifts in interest rates. As the ECB is expected to maintain an expansionary monetary policy stance, interest rates would remain low for long. Lower sovereign rates will give governments more leeway to expand demand, if needed to stabilize growth, or to finance public investment or a Green (New) Deal without necessarily challenging the path of public debt sustainability. At the European level, the existence of a fiscal space relies on the assessment of the relevant speed of reduction of public debt, more than a sustainability issue.

## An economic slowdown...

Since the end of 2018, activity in the euro area was dragged down by the economic situation in Germany which had so far been the main engine of growth. From the end of 2017 to the mid-2019 German growth dropped from 3.4% to 0.4% on a yearly basis (Figure 1). On a quarterly basis, GDP has even contracted slightly in the third quarter of 2018 and again in the second quarter of 2019. France and Spain were more resilient even though there was also a decline in GDP growth, while economic activity in Italy almost stands still.

Figure 1. Growth in the main euro area countries



Source : Eurostat.

## ... explained by global factors...

Global and idiosyncratic factors explain the economic downturn. Though it has remained higher than in the euro area, activity has slowed down recently in the United States, in line with a gradual fading out of the fiscal support. In 2020, the fiscal stance would be back to neutrality in the US. Past measures would weigh down growth, that would reach 1.3% after 2.3% in 2019 and 2.9% in 2018. Among emerging countries, India and especially China will grow at slower pace. While the Indian downturn is mainly due to cyclical factors, the Chinese slowdown is more structural and related to the transition towards a more internal demand-oriented economy.

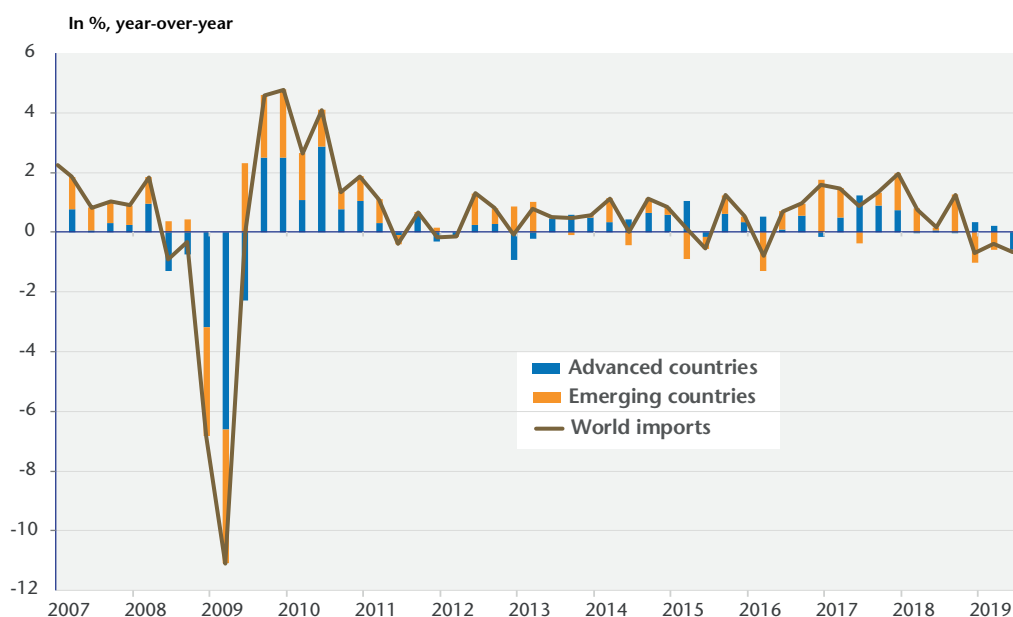
## Trade war and global uncertainty

Since the election of Donald Trump as President, the United States have reoriented radically their political strategy regarding international trade. Donald Trump imposed a wave of tariffs' increase on Chinese products. Consequently, trade between the United States and China plummeted but the US current account deficit has not reduced since it is mainly driven by a buoyant internal demand. However, European countries have

not benefited from a shift in the US demand. Moreover, the European Union has also been subject to additional tariffs on its exports of steel and aluminium to the United States. In addition, in the context of the WTO dispute settlement procedure between Airbus and Boeing, the United States won the first round of the battle and will be allowed to impose sanctions against a list of European products. It is yet very likely that the European Union will in turn be allowed to increase its tariffs on US imports since Boeing also benefited from illegal subsidies. Finally, Donald Trump repeatedly pointed to the gap in the tariffs imposed by the European Union and by the United States in the car industry. If no sanctions have been taken for the moment, the threat remains and it is detrimental to the prospects for business opportunities and for investment.

Mounting mistrust on the future of trade and the global economic slowdown contribute to the fall in world imports in industrialized and emerging countries in Q2 2019 (Figure 2). In Europe, uncertainty rose with tensions around the Brexit. If the United Kingdom and the European Union have finally come to a deal avoiding a disruptive exit the final outcome has long remained uncertain. Besides, the conditions of the divorce have not been settled yet by the current deal and the future relations between the UK and the UE have still to be sketched.

Figure 2. World trade growth



Sources: CPB (World trade monitor), OFCE october 2019.

### Crisis in the automobile industry

The current slowdown is particularly obvious in the automobile industry. In 2018, the adoption of new standards caused severe disruptions in production, new cars registrations and sales. However, it seems that the crisis is structural and that the sector's supply will be impaired for several years. The *dieselgate* scandal has weakened the sector and sparked distrust for diesel engines. More generally, the place of the automobile in our society comes under question as many big cities are planning to ban partially or completely the use of motor vehicles at a relatively short horizon. Considering these announcements, consumers may be tempted to delay the replacement of their vehicle and wait for the introduction of more efficient and cheaper electric vehicles. The result is a lasting decline in car demand while manufacturers adapt their supply. Global sales have already contracted, mainly because of declining Chinese demand. The automo-

ble industry plays an important role in the European Union. According to the European Commission, 2.6 million people work directly in manufacturing of motor vehicles hence representing 8.5% of EU employment in the manufacturing sector.

In comparison with other EU car producers, Germany is the most exposed country to the automobile shock. The sector accounts for a higher share of the production and German firms are also more involved in the production of vehicles that suffer from the Chinese slowdown and from tariff threats by the US administration as they are significantly more open to those markets.

### ... and domestic factors

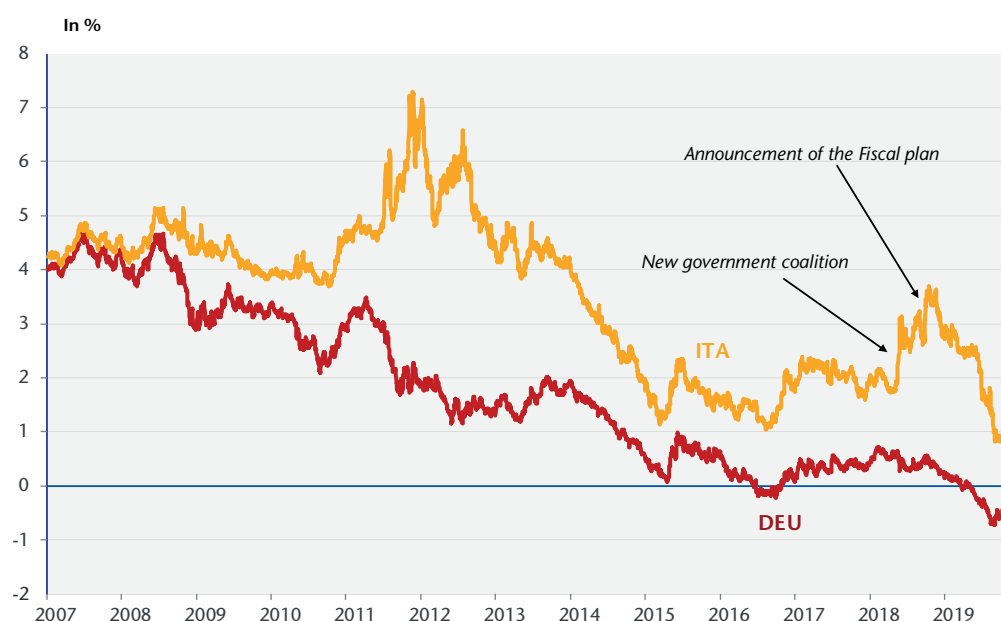
Italy and Spain have gone through a severe political crisis whose effects on growth have been very different. In Italy, the coalition formed by the 5-Star Movement and the League – two political parties which are critical towards European policy and institutions – sought to carry out a fiscal stimulus that would have circumvented the European fiscal rules and resulted in an increase of net government lending. It led to a showdown between the Italian government and the European Commission that threatened to place Italy under an excessive deficit procedure. With public debt exceeding 130% of GDP, market fears over the sustainability of Italian public finances have also resurfaced. Sovereign yield rose from 1.8% in early 2018 to 3.6% in October before falling back again (Figure 3). The fiscal impulse turned out to be less ambitious than initially announced and tensions with the Commission eased. Interest rates declined sharply to below 0.9% in September. There is still a risk premium on the Italian yield, around 1.4 point relative to the German sovereign yield. Besides, the coalition was weak and the leader of the League, Matteo Salvini, resigned in August. Since then, a new coalition has settled, partying the 5-Star Movement and the Democratic Party. If the fiscal programme of the new coalition seems to be more compatible with the fiscal rules, the government still relies on a fragile political compromise. The relief could be short-lived and the return of an EU-critical government cannot be excluded in the short run. On the one hand, the positive fiscal impulse may stimulate aggregate demand but, on the other hand the increase of interest rates spreads and the rise in uncertainty would have a negative impact.

Spain is also characterized by a political crisis since no absolute majority has been reached in Parliament for nearly four years now. Moreover, the Catalan crisis challenges the territorial integrity of Spain and makes the formation of a new coalition harder to achieve. Unlike Italy, this situation has not hindered the recovery so far whereas the lack of stable majority has made impossible to vote for some fiscal reforms. The 2018 budget measures were extended in 2019, resulting in a positive fiscal impulse that supported aggregate demand.

In France, social protests at the end of the year 2018 triggered a loss of confidence that may explain the sharp rise in the savings rate observed since. The government took new fiscal measures to support households' purchasing power in 2019 and 2020. Although, those measures have first triggered a rise in the savings rate, they would finally boost aggregate demand and contribute to the resilience of French growth.

Finally, the drought in Germany in the summer of 2018 lowered the level of the Rhine to a level that compromised the river traffic over an exceptionally long time. The river, crossing a major German industrial region, plays a key role in the transportation of goods, so that the weather conditions forced a transitory slowdown of manufacturing activity, adding to other negative shocks to amplify the weakening of growth from 2018.

Figure 3. Sovereign interest rates for Italy and Germany



Source: Datastream.

## No recession but negative risks dominate

The economic slowdown is in line with the deterioration of the economic sentiment since the beginning of 2018. The trend notably affects the manufacturing sector where surveys have shown a reversal of business confidence in emerging countries as well as in industrialized countries. Sentiment has not yet recovered, suggesting the intensification of the slowdown. It should be noted, however, that surveys of service sector firms' or of households' sentiment are generally less pessimistic than industry sectors' surveys.

According to our forecast scenario, the euro area would escape a recession in 2020 and we expect GDP to grow at 1.2% in 2020 as in 2019. The downturn would yet remain significant since GDP growth had reached 2.7% in 2017. Activity would still be dragged down by Germany and Italy. Those countries would contribute to 0.2 and 0.1 respectively to the annual growth of the euro area in 2020. The slowdown would be less marked in France, whose performance would be very close to that of the euro area in 2019 and 2020. For 2020, France would then become the main contributor of growth (0.3 point) in the euro area while the contribution of Spanish growth would amount to 0.2 point.

Even if a contained slowdown is expected, labour markets would be resilient. Unemployment would increase moderately in Germany but would continue to decline though slowly in countries where it was higher, such as France, Spain and Italy. The euro area unemployment rate would stabilize at 7.4% in 2020, falling by 0.1 percentage point after decreases by 0.7 and 0.9 point respectively in 2019 and 2018. In this context, wage and price pressures would remain limited. We expect inflation to stabilize at 1.3% for the euro area, well below the ECB's target. This will motivate the pursuit of an expansionary monetary policy stance and therefore the maintenance of low interest for a long time-span.

## Is recovery over?

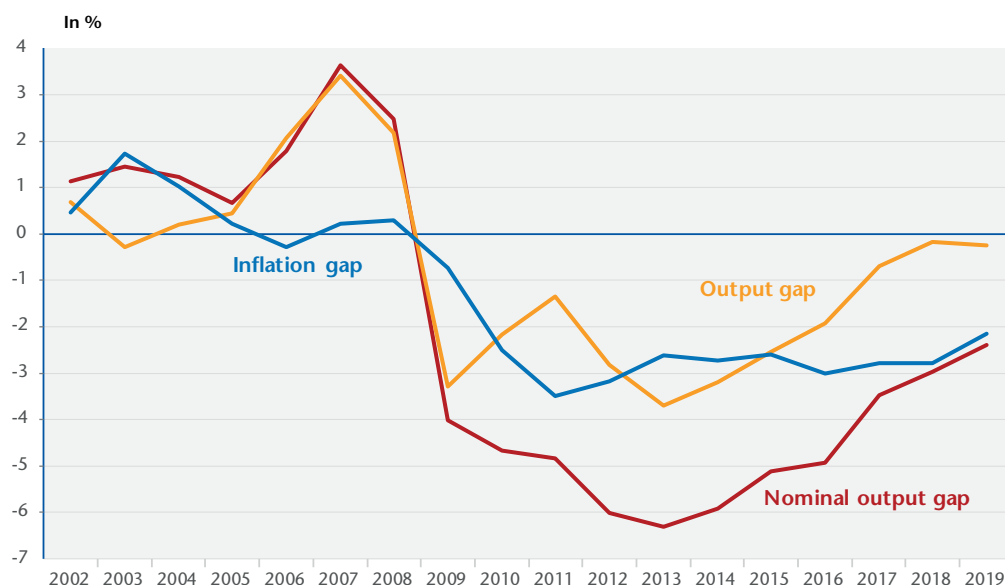
Does the current slowdown reflect the end of the recovery in the euro area and the closing of the output gap? If it were the case, the growth path would converge to potential growth rate, which is generally supposed to be lower compared to the pre-crisis path. The economic downturn would then have occurred notwithstanding negative shocks to the euro area. Yet, these negative shocks are real and cannot be dismissed in the explanation of the current slowdown. Moreover, large uncertainties surround the growth rate of the potential output and consequently on the level of the output gap. The estimation of the output gap is yet crucial to identify whether there is still some growth “space” and whether the unemployment rate is close to the structural unemployment rate. For instance, output gap is evaluated to be positive in 2018 in the euro area according to the IMF and the European Commission whereas the OECD estimates suggest that it is still slightly negative (-0.4%). However, the interpretation of those figures should be cautious and a positive output gap should not always be considered as a situation of overheating of the economy. The concept of output gap varies across institutions so that it may be hard to reconcile those figures with the decline of inflation observed recently in the euro area. For instance, these institutions have changed their estimation of the output gap for 2007 without changing the level of inflation. Since 2014, the euro area has started to recover without triggering a rise in inflation. In average, it has reached 1.0% on average since January 2013, well below the 2% target set by the ECB. More recently, despite the estimates of the IMF and the European Commission of a positive output gap, inflation remains weak.

If we consider the inability of the ECB to reach its inflation target since the inception of the crisis, we can measure the gap between nominal GDP and the potential nominal GDP, which accounts for the 2% target for inflation.<sup>1</sup> This nominal output gap capturing the lack of inflation and the remaining production capacity would therefore provide a different picture of the economic outlook in the euro area.

An alternative analysis would consist in supplementing the real output gap by an assessment of the price differential with respect to a level compatible with the inflation target of the central bank. Assuming an inflation target of 2% for the euro area countries and cumulating on a sliding window of 3 years price inflation (that is, assuming prices adjust in level after 3 years), we calculate a nominal output gap reproduced in the Figure 4 below. It should be noted that at the time of the 2008 economic crisis,

1. For further details, see OFCE (2019), « Un sentier de croissance en ralentissement. Perspectives 2019-2021 pour l'économie mondiale et la zone euro », Part 1.5, *Revue de l'OFCE*, 163.

Figure 4. Output gap in the euro area



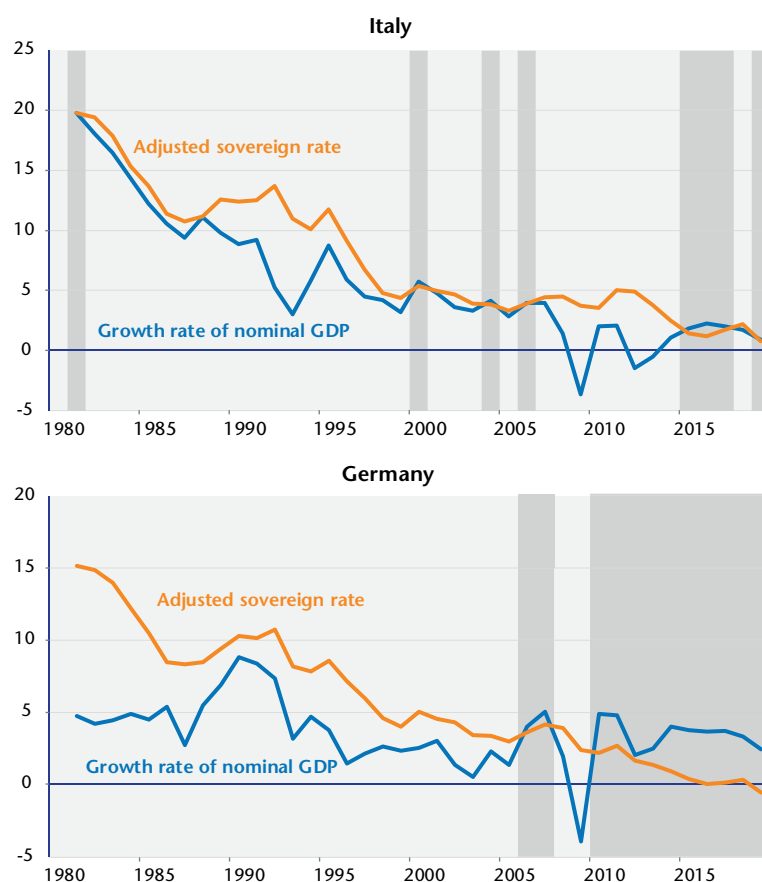
Sources: OECD and OFCE calculations.

the inflation gap was small. Since, it has been negative triggering a difference between the standard estimates of the output gap and the nominal output gap, which accounts for the price difference.

## Are fiscal policies really constrained?

Against the backdrop of the economic slowdown in the euro area, a fiscal stimulus has been advocated in the public debate (e.g. European Commission, 2019; OECD, 2019). This raises the issue of the fiscal space to implement the stimulus. By definition, the fiscal space allow a government to change the policy stance without challenging the sustainability of its public finances. In theory, a public debt is sustainable provided future discounted fiscal surpluses make it possible to repay the current level of debt. This definition is, however, not very informative in practice. Ghosh *et al.* (2013) consider that a government has room for manoeuvre if it manages to finance its deficit without excessive pressure on the interest rate. From a fiscal point of view, recent interest rate developments show that there is still an important demand from investors for public debt, suggesting that a more expansionary fiscal policy would not necessarily translate into higher risk premia that would jeopardize public debt sustainability. In fact, the recent evolution of interest rates has made the critical gap (the difference between the nominal GDP growth rate and the apparent interest rate on debt) negative that leads to a spontaneous reduction of debt, a phenomenon put forward by Blanchard (2019) (Figures 5). Italy could however appear as an exception as the

Figure 5. Annual GDP growth rate and implicit interest rate on debt in Germany and Italy (In %)



Note: The adjusted rate is computed following the methodology developed in Blanchard Olivier (2019), "Public Debt and Low Interest Rates", *American Economic Review*, 109 (4): 1197-1229.

Sources: Datastream, OFCE calculations.



measures announced by the former coalition caused an increase in rates in the Spring of 2019 and that political risk has not completely dissipated so far.

In the euro area, we must yet also account for the existing fiscal rules. Countries are actually committing not only to a deficit below 3% of GDP, but also to reducing the structural deficit and converging their public debt to 60% of GDP in 20 years, which requires significant efforts for many countries. France, Italy and Spain have already reduced efforts in relation to their initial commitments. The drop in sovereign rates, however, would provide room for manoeuvre in 2020 without necessarily compromising compliance with the rules in force.

## A pathway to reach the debt target

Fiscal rules and targets have been driving the fiscal policies of the EA since its very start. The fiscal consolidation implemented between 2010 and 2015 contributed to the stabilization of public debt in most of the EA countries, although often at heavy costs in terms of output and unemployment. However, public debt ratios are still high in some countries, raising questions about their ability to bring the debt-to-GDP ratio back to 60%.

Discussions on the need for additional fiscal consolidation will not stop as long as the debt-to-GDP ratio is above or not converging towards 60% although there is no economic rationale for this figure. Using the iAGS model for euro area medium term projections, we therefore simulate the path of public debt-to-GDP ratios to 60% until 2040, which is the horizon of the debt rule incorporated in the Stability and Growth Pact and in the Fiscal Compact. It provides a twofold assessment for individual countries in the euro area: according to the fulfilment of this rule, the simulation tells which are the countries and the extent to which they require additional fiscal consolidation and which are those with sufficient fiscal space to implement a fiscal stimulus.

The model (see box for details) allows to simulate fiscal policy and macroeconomic interactions of the main countries of the EA: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal and Spain.<sup>2</sup>

The baseline scenario assumes no new fiscal policies after 2021. We acknowledge that this scenario is not realistic but it helps to understand the current situation that each country is facing. We make specifically two assumptions: 1) there is no fiscal impulse<sup>3</sup> after 2021, 2) interest rates converge to a “normal” situation after 2024 (there are no risk premia, inflation expectations are anchored at 2%/y and real interest rate are equal to potential growth).<sup>4</sup> Under those assumptions, we compute for each country public debt, structural balance, inflation and the GDP growth rate from 2019 to 2040, taking into account linkages between countries through trade and interest rates. We search then a pathway leading to 60% public debt-to-GDP ratio in 2040 in every country minimizing the cumulative output loss. We first present baseline results and then discuss sensitivity to key parameters such as interest rates.

In the baseline scenario, France, Italy, Spain, and Belgium would not reach the 60% debt-to-GDP ratio by 2040 (see Figure 6), implying that further fiscal adjustment would be needed beyond 2021. For Belgium, France and Spain, the amount of fiscal consolidation required to achieve 60% debt is more than 2% of GDP over the next 20 years (see Table 1). Moreover, these countries would have to concentrate their fiscal consolidation efforts until 2026-2028. For Italy, the required fiscal consolidation is twice larger, because of higher initial debt burden, higher interest rates and lower potential growth. Fiscal consolidation would have to be large (around 5% of GDP) and long-lasting to meet the 60% criterion. Finally, countries experiencing a decrease in the

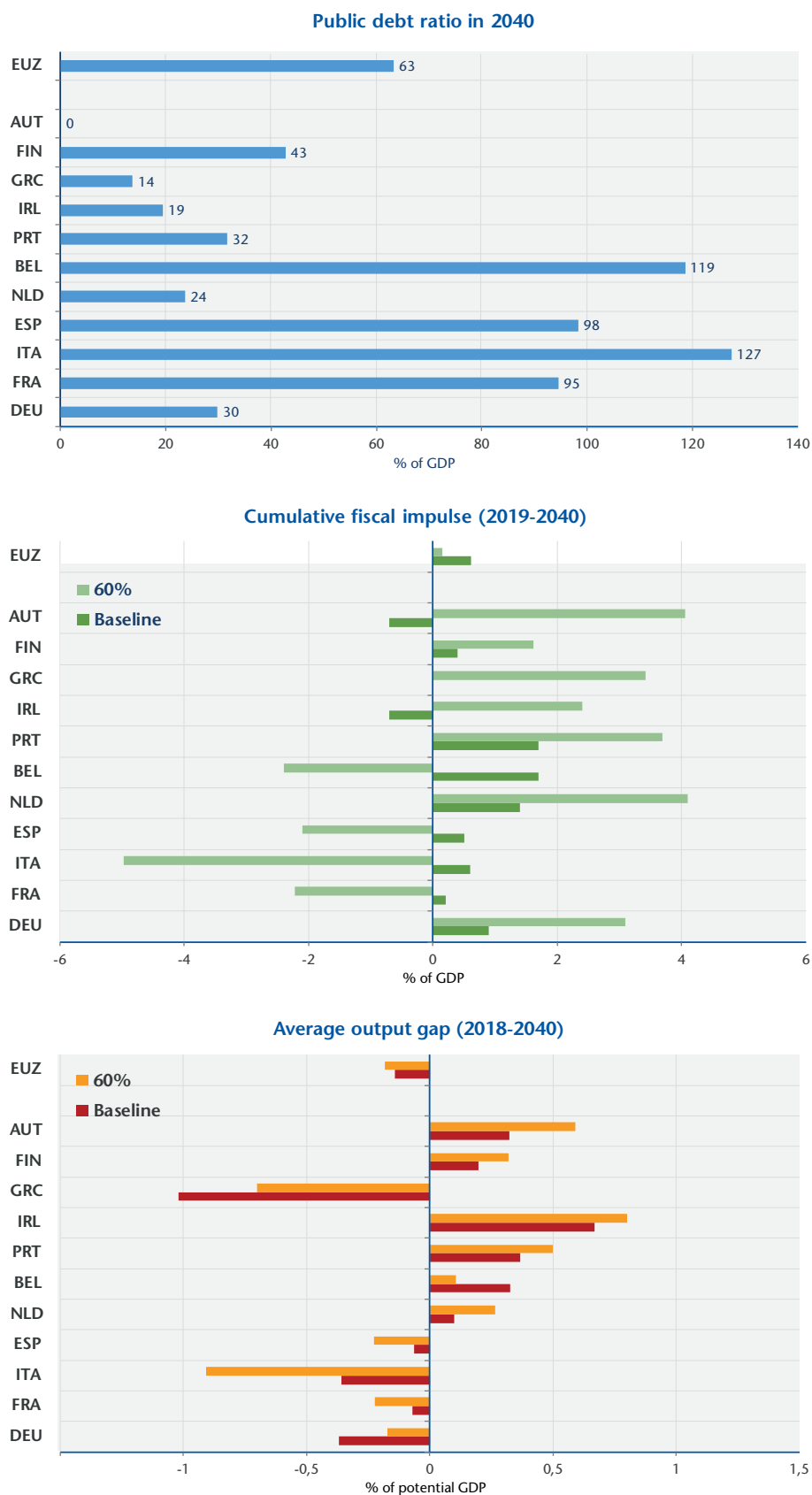
2. Broad principles of the model are available at [www.iags-project.org/documents/iags\\_appendix\\_2013.pdf](http://www.iags-project.org/documents/iags_appendix_2013.pdf). Various evolutions have been made since. Please consult iAGS and iASES reports and related publications for more details at [www.iags-project.org](http://www.iags-project.org).

3. Fiscal impulse is measured under a bottom-up approach. From the revenue side, the fiscal impulse is measured by the discretionary new measures (excluding the impact of short-run changes in the tax elasticity). Meanwhile, the fiscal impulse from expenditures is measured by the difference between the growth rate of primary expenditures and the potential growth of GDP, weighted by the share of primary expenditures on GDP.

4. In our model fiscal multipliers (for each country, different for each fiscal tool) tend to 0.5 (short term) when the output gap is 0. Long term and cumulative multipliers are 0 in the long run. They are higher when the output gap is negative, reaching a maximum of 1.5 for expenditures and 0.6 for taxes, consistently with the empirical consensus.



Figure 6. Public debt in 2040, fiscal impulse and output gap  
(Baseline scenario versus 60% debt to GDP ratio in 2040)



Source: iAGS model.

public debt below the 60% threshold would benefit from and use their fiscal space. With all countries linked through trade, the use of fiscal space in these countries alleviates the burden of countries without fiscal space. Stated differently, would countries with fiscal space renounce to use it to stimulate their economy, the burden for other countries would be larger. On average, EA growth would be 0.1 point lower for 2021-2025 in that case.

Table 1. Pathway to 60% debt-to-GDP ratio. Public finance and output performance (baseline scenario except +/- 0.5 fiscal impulses depending on public debt gap vis-à-vis 60% target)

	Public debt (% of GDP)		Structural balance (% of GDP)		Cumulative fiscal impulse	GDP growth rate (%)		Average output gap	Inflation rate (%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	2020	2040	2020	2040	2019-()*	2019-2021	2022-2040	2019-40	2019-21
DEU	57	60	1.2	-3.0	3.1 (2024)	1.0	1.8	-0.2	1.4
FRA	99	60	-2.4	-0.5	-2.2 (2026)	1.3	1.3	-0.2	1.5
ITA	134	60	-1.8	4.0	-5.0 (2032)	0.1	0.3	-0.9	0.8
ESP	97	60	-2.6	-0.1	-2.1 (2026)	1.7	1.0	-0.2	1.1
NLD	47	60	0.3	-3.6	4.1 (2026)	1.6	1.7	0.3	1.8
BEL	102	60	-2.7	0.1	-2.4 (2028)	1.1	1.0	0.1	1.7
PRT	118	60	0.8	-0.2	3.7 (2026)	1.7	1.6	0.5	1.2
IRL	58	60	-1.6	-3.8	2.4 (2025)	3.6	3.7	0.8	0.7
GRC	170	60	4.3	2.7	3.4 (2027)	1.8	1.0	-0.7	1.0
FIN	59	60	-0.6	-2.6	1.6 (2023)	1.3	1.3	0.3	1.4
AUT	66	60	0.8	-3.4	4.1 (2029)	1.7	2.0	0.6	2.4
EA	86	60	-0.7	-1.2	0.2	1.2	1.4	-0.2	1.4

\*the last year of fiscal impulse is in brackets. Beyond that year, fiscal impulse is null. A positive (respectively negative) fiscal impulse means that an expansionary (respectively restrictive) fiscal policy is implemented.

Source: iAGS model.

Although all EA countries could meet the 60% criteria in 2040, this would imply a reduction in growth for countries implementing additional fiscal consolidation (see table 1). Not only would growth be lower in the EA as a whole, but the heterogeneity in growth performance would also widen. Moreover, growth would deteriorate in countries that have already suffered from the double dip recession. The countries with fiscal space are already those in which the unemployment rate has recovered to or is close to pre-crisis levels. This outcome clearly questions the social sustainability of adopting additional consolidation measures to cope with existing fiscal rules. As illustrated in previous iAGS and iASES reports, a trade-off naturally arises between the debt objective and the growth objective.

The simulations suggest that fiscal consolidation will still be large in the future, intensifying the risk of an extended economic slowdown, possibly amplified by external events (trade threats, Brexit, China's slump). This may also feed social discontent, and add deflationary pressures to the euro area, notably in countries where the output gap is negative and the unemployment rate is high (Spain, Italy and France). It shall be recommended to apply fiscal rules with flexibility, giving more time to reach the mostly symbolic threshold of debt-to-GDP ratio of 60%.

The conclusions that may be drawn are twofold. First, EA countries should not commit to additional fiscal consolidation unless the "nominal" output gaps are closed. Second, countries with fiscal room for manoeuvre should use it to sustain growth in the

EA, especially Germany. In this country, fiscal space can be used swiftly to stabilize its economic activity as the manufacturing sector is suffering from global shocks and from the shock in the automobile industry. This would sustain economic activity with positive spillovers to other countries; meanwhile, it would keep the unemployment rate at a low level without putting at risk debt sustainability (the 60% debt-to-GDP ratio could still be achieved in 2040).

### A pathway depending on interest rates

In the baseline scenario, we kept interest rates at low levels (near their 2019 level) until 2024. There is considerable uncertainty on the path of future interest rates, and they could stay at low level for a longer time. In that case, it would ease the achievement of the 60% debt-to-GDP ratio for countries that have to consolidate. To assess this, we now simulate an alternative scenario where interest rates on public debt stay low until 2029 and compute fiscal impulses required to achieve the debt target. Debt burden would then be lower due to lower interest rates and fiscal space would be higher. In this alternative scenario, countries would have on average 0.5% of GDP of additional fiscal space. France, Italy and Spain could stop consolidation one to two years earlier.

Table 2. Pathway to 60% debt-to-GDP ratio. Cumulative Fiscal impulse according to interest rates

	Baseline (low rates until 2024)	Alternative (low rates until 2029)	difference
	(1) 2019-()*	(2) 2019-()*	(3) = (2) – (1)
DEU	3.1 (2024)	3.6 (2025)	0.5
FRA	-2.2 (2026)	-1.5 (2024)	0.7
ITA	-5.0 (2032)	-4.3 (2030)	0.7
ESP	-2.1 (2026)	-1.5 (2025)	0.6
NLD	4.1 (2026)	4.6 (2027)	0.5
BEL	-2.4 (2028)	-1.5 (2027)	0.9
PRT	3.7 (2026)	4.3 (2027)	0.6
IRL	2.4 (2025)	2.8 (2026)	0.4
GRC	3.4 (2027)	3.4 (2027)	0.0
FIN	1.6 (2023)	2.1 (2024)	0.5
AUT	4.1 (2029)	4.6 (2030)	0.6
<b>EA</b>	<b>0.2</b>	<b>0.7</b>	<b>0.6</b>

\* The last year of fiscal impulse is in brackets. Beyond that year, fiscal impulse is null.  
Source: iAGS model.

### Box. iAGS model

Some key features of the iAGS model follow:

- ◆ The model allows for an explicit representation of the main countries of the euro area: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain. An aggregated euro area is also computed in order to deal with global analysis and monetary policy.
- ◆ On the demand side, an open economy aggregate demand function is modelled which embodies fiscal and monetary policy, external demand (a channel for intra EU interdependencies) as well as exogenous shocks on the output gap (the gap between actual and potential GDP). This equation also takes into account possible long run effects of macroeconomic policies such as long term fiscal policy, threshold effects or hysteresis on potential output. The parameterization allows simulating standard hypothesis as well as alternatives, checking to show the dependence of results on different sets of hypotheses. Furthermore, the size of fiscal multipliers is allowed to on the stage of the business cycle, and on the level of public debt. The effectiveness of monetary policy is allowed to differ when monetary policy hits zero lower bound.
- ◆ External demand is modelled using a bilateral trade matrix representing interdependencies between countries. That trade matrix is also used as a basis for imbalances analysis.
- ◆ We model prices by a generalized Phillips curve relating current and expected inflation to economic activity, imported inflation and other exogenous shocks. Expectations can be modelled as adaptive (backward-looking) or rational (forward-looking).
- ◆ A Taylor rule sums up monetary policy. Fiscal policy can be modelled with some kind of rule adjusting spending or taxes to debt or unemployment goals for example. Such rules can be unplugged to deal with optimal or alternate policy scenarios.
- ◆ Fiscal policy, that is to say the public balance, separates interest payments, cyclically-adjusted balance and cyclical components, in order to properly assess the fiscal stance, i.e. the part of fiscal policy which is under the direct control (discretion) of current governments. We then infer public debt projections for euro area countries. This module helps to assess fiscal sustainability issues, as it incorporates issues related to the impact of the market interest rate (government-bond yield).

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