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

By Céline Antonin

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

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

Figure. Interest rate on 10-year sovereign bonds

In %

Legend: Germany, France, Italy, Spain, Irland, Portugal
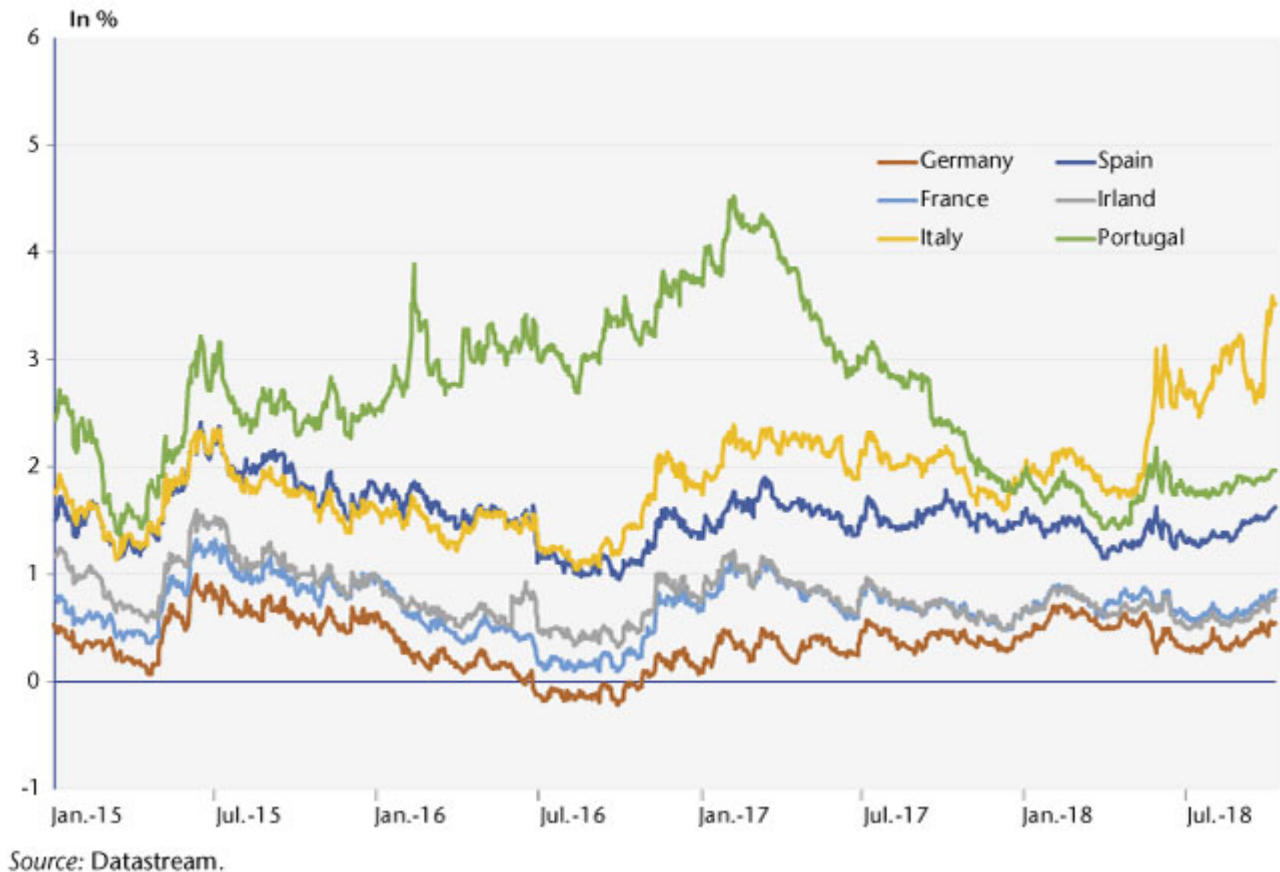
A very strong fiscal stimulus in 2019

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

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

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

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

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

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

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

With a very positive fiscal stimulus in 2019, annual growth (1.1%) should be higher than in 2018. This acceleration is more visible year-on-year: growth in Q4 of 2019 will be 1.6%, compared with 0.6% in Q4 of 2018. Although low, this level is nevertheless higher than the potential growth rate (0.3%) in 2019 and 2020. The output gap is in fact still large and leads to 0.4 GDP point of catch-up per year. Spontaneous growth[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 (d_t)	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 (d_{t+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: $d_{t+1} = d_t \frac{(1+i)}{(1+g)} - s_t$ 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.

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

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

What is the value of the fiscal multipliers today?

By [Xavier Timbeau](#)

We inherited higher public deficits and greatly increased public debts from the crisis (Table 1). Reducing these will require a major fiscal effort. But a programme that is too brutal and too fast will depress activity and prolong the crisis, not only compromising the fiscal consolidation effort but also locking the economies into a recessionary spiral. The value of the fiscal multiplier (the link between fiscal policy and economic activity) both in the short term and in the long term is thus a critical parameter for stabilizing the public finances and returning to full employment.

Public deficit and public debt 2007-2012

In GDP points	Public deficit		Net public debt minus financial assets	
	2012	Change 2012-2007	2012	Change 2012-2007
DEU	-0.9	-1.1	52	9
FRA	-4.5	-1.7	66	31
ITA	-1.7	-0.1	96	9
ESP	-5.4	-7.3	54	37
NLD	-4.3	-4.4	43	15
BEL	-2.8	-2.7	82	9
PRT	-4.6	-1.4	81	32
IRL	-8.4	-8.5	82	82
GRC	-7.4	-0.6	134	52
AUT	-2.9	-1.9	48	17
Euro area (EA11)	-3.0	-2.3	63	20
GBR	-7.7	-4.9	74	46
USA	-8.3	-5.3	85	37
JPN	-9.9	-7.8	134	54

Source : OECD, Economic outlook 91.

When the multiplier (in the short term) is greater than approximately 2 (actually $1/a$, a being the sensitivity of the public deficit to the economic cycle and valued at about 0.5 in the developed countries), then fiscal cutbacks produce such a decrease in activity that the short-term deficit increases with the cuts. When the multiplier is greater than approximately 0.7 (in fact, $1/(a+d)$, d being the ratio of debt to GDP), then fiscal restraint increases ratio of debt to GDP in the short term. In the longer term, things get complicated, and only a detailed modelling can help to understand in what circumstances today fiscal restraint would lead to a sustained reduction in the debt-to-GDP ratio. The value of the multiplier in the medium term is of course crucial (it is usually assumed to be null, or zero, but in the case of cost-effective public investment, this assumption does not hold), but hysteresis effects as well as changes in expectations about inflation or about sovereign interest rates (and therefore the critical gap, *i.e.* the gap between 10-year sovereign bond rates and the economy's nominal potential

growth rate) interact with changes in the debt and in GDP.

Until recently, most economists believed that the value of the multiplier depends on the composition of the fiscal stimulus (taxes, expenditure and the nature of taxes and expenditure), the size of the economy and its openness (the more open the economy, the lower its multiplier) and the existence of anticipations of a fiscal shock (an anticipated shock would have little effect, in the long term, it would have none, with only an unexpected shock having a temporary effect)[1]. Recent literature (since 2009) has taken an interest in the value of the fiscal multiplier in the short term in times of crisis . Two main conclusions emerge:

1. The multiplier is higher in "times of crisis" (in the short term or as long as the crisis lasts). In "times of crisis" means high unemployment or a very wide output gap. Another symptom may be a situation where safe long-term interest rates are very low (*i.e.* negative in real terms), suggesting a flight to safety (radical uncertainty) or a liquidity trap (expectations of deflation). Two theoretical interpretations are consistent with these manifestations of the crisis. One, price expectations are moving toward deflation, or radical uncertainty makes it impossible to form an expectation, which is consistent with very low safe interest rates and leads to the paralysis of monetary policy. Or second, more economic agents (households, firms) are subject to short-term liquidity constraints, perpetuating the recessionary spiral and preventing monetary policy from functioning. In one case as in the other, the fiscal multipliers are higher than in normal times because the expansionary fiscal policy (resp. restrictive) forces the economic agents to take on debt (resp. shed debt) collectively instead of individually. In "times of crisis" the multiplier is in play including when it is anticipated and its effect persists until a

return to full employment.

2. The multiplier is higher for expenditures than it is for compulsory levies. The argument in normal times is that higher compulsory levies acts as a disincentive and spending cuts as an incentive on the supply of labour. In a small open economy, when monetary policy also induces a real depreciation of the currency, fiscal restraint can increase activity, a result that has long allowed supporters of fiscal discipline to promise all kinds of wonders. But in times of crisis, in addition to the fact that the multipliers are higher, the logic applicable in normal circumstances is reversed. The use of taxes as disincentives for the labour supply or spending cuts as incentives does not work in an economy dominated by involuntary unemployment or overcapacity. It is in fact the expectations of a recession or of deflation that act as disincentives, which is another factor indicating high multipliers.

Econometric estimates (based on past experience of "times of crisis") lead to retaining a fiscal multiplier of around 1.5 (for an average mix of spending and compulsory levies).

Taking together 2011 and 2012, years in which a very strong fiscal impulse was carried out, confirms this econometric evaluation. By comparing on the one hand changes in the output gap from end 2010 to 2012 (on the abscissa) and on the other hand the cumulative fiscal impulse for 2011 and 2012, we obtain the short-term impact of the fiscal consolidation. Figure 1 depicts this relationship, showing a close link between fiscal restraint and economic slowdown.

Graphe 1 : Change in the output gap and the impulse 2011-2012
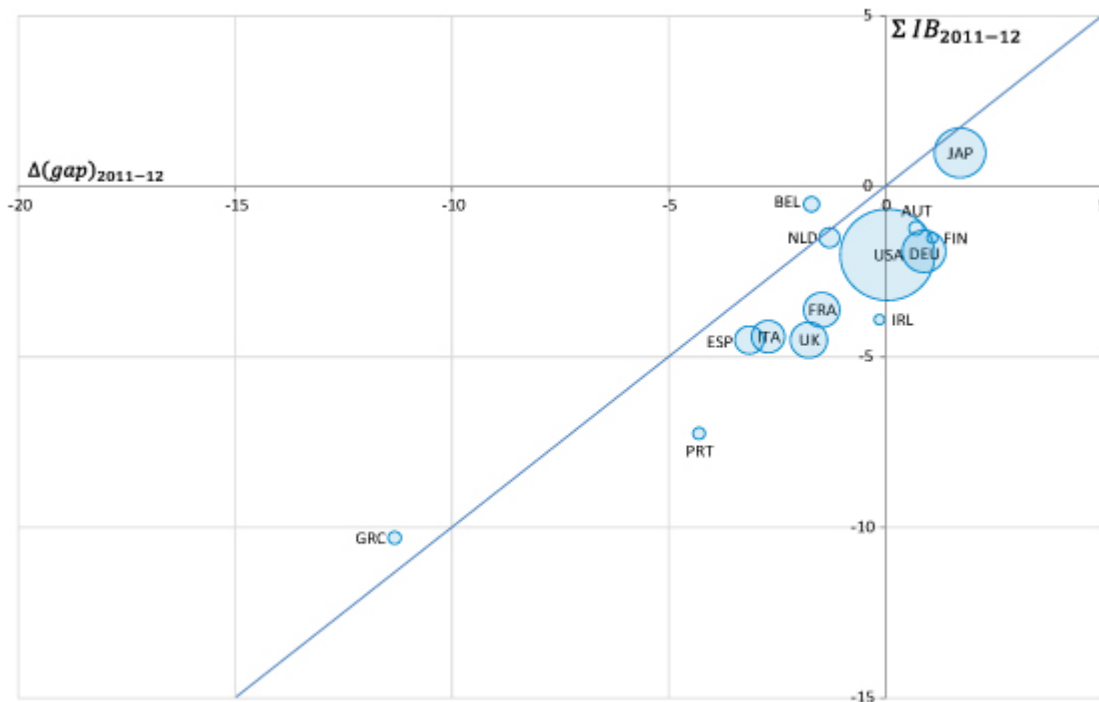
Source: OECD, Economic Outlook 91, June 2012. The year 2012 is a projection (OFCE forecast October 2012).
The area of the bubbles is proportional to real GDP in 2011 ($ PPP).

For most countries, the "apparent" multiplier is less than 1 (the lines connecting each of the bubbles are below the bisector, the "apparent" multiplier is the inverse of the slope of these lines). Figure 2 refines the evaluation. The changes in the output gap are in effect corrected for the "autonomous" dynamic of the closing of the output gap (if there had been no impulse, there would have been a closing of the output gap, which is estimated as taking place at the same rate as in the past) and for the impact of each country's budget cutbacks on the others through the channel of foreign trade. The bubbles in orange therefore replace the blue bubbles, integrating these two opposing effects, which are evaluated here while seeking to minimize the value of the multipliers. In particular, because the output gaps have never been so extensive, it is possible that the gaps are closing faster than what has been observed in the last 30 or 40 years, which would justify a more dynamic counterfactual and therefore higher fiscal multipliers.

Austria and Germany are exceptions. As these two countries

enjoy a more favourable economic situation (lower unemployment, better business conditions), it is not surprising that the multiplier is lower there. Despite this, the "corrected apparent" multiplier is negative. This follows either from the paradoxical effects of the incentives, or more likely from the fact that monetary policy is more effective and that these two countries have escaped the liquidity trap. But the correction provided here does not take into account any stimulus from monetary policy.

In the United States, the "2011-2012 corrected apparent" multiplier comes to 1. This "corrected apparent" multiplier is very high in Greece (~ 2), Spain (~ 1.3) and Portugal (~ 1.2), which is consistent with the hierarchy set out in point 1. This also suggests that if the economic situation deteriorates further, the value of the multipliers may increase, exacerbating the vicious circle of austerity.

For the euro zone as a whole, the "corrected apparent" multiplier results from the aggregation of "small open economies". It is thus higher than the multiplier in each country, because it relates the impact of the fiscal policy in each country to the whole zone and no longer just to the country concerned. The aggregate multiplier for the euro zone also depends on the composition of the austerity package, but especially to the place where the measures are being implemented. However, the biggest fiscal impulses are being executed where the multipliers are highest or in the countries in the deepest crisis. The result is that the aggregate multiplier for the euro zone is 1.3, significantly higher than that derived from the US experience.

A comparison of the fiscal plans for 2011 and 2012 with the economic cycle in those years yields a high estimate for the fiscal multipliers. This confirms the dependence of the multiplier on the cycle and constitutes a serious argument against the austerity approach, which is to be continued in 2013. Everything indicates that we are in a situation where

Graphe 2 : Changes in the output gap and the impulse 2011-2012
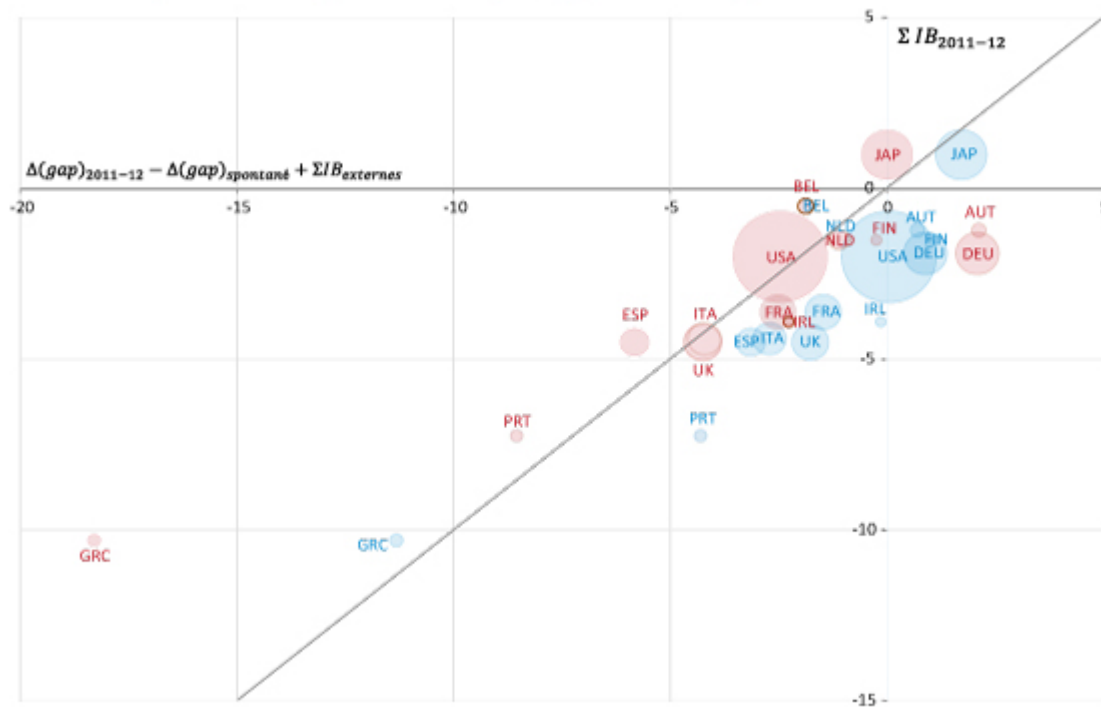
$\Delta(gap)_{2011-12} - \Delta(gap)_{spontané} + \Sigma IB_{externes}$

$\Sigma IB_{2011-12}$

Source: OECD, Economic Outlook 91, June 2012. The year 2012 is a projection (OFCE forecast October 2012). The area of the bubbles is proportional to real GDP in 2011 ($ PPP).

[1] There has been an intense debate about the theoretical and especially the empirical validity of these assertions (see [Creel, Heyer and Plane 2011](#) and [Creel, Ducoudré, Mathieu and Sterdyniak 2005](#)). Recent empirical work undertaken for example by the IMF has contradicted the analyses made ￼in the early 2000s, which concluded that anti-Keynesian effects dominate Keynesian effects. Thus, at least with regard to the short term, before the crisis and in "normal times", the diagnosis today is that the fiscal multipliers are positive. The endogeneity of measurements of a fiscal impulse by simply varying the structural deficit interfered with the empirical analysis. The use of a narrative record of fiscal impulses addresses this issue and significantly alters estimates of the multipliers. In most macroeconomic models (including dynamic stochastic general equilibrium – DGSE – models), the fiscal

multipliers are also positive in the short term (on the order of 0.5 for a pure fiscal shock "in normal times"). In the long run, the empirical analysis does not tell us much, as the noise drowns out any possibility of measurement. The long term therefore reflects mainly an *a priori* theory that remains largely dominated by the idea that fiscal policy can have no long-term effect. However, in the case of public investment or of possible hysteresis, the assumption of a non-null effect in the long run seems more realistic.

Fiscal policy honoured

By [Jérôme Creel](#)

"The size of many multipliers is large, particularly for spending and targeted transfers." Who today would dare to write such a thing?

The answer is: 17 economists from the European Central Bank, the US Federal Reserve, the Bank of Canada, the European Commission, the International Monetary Fund, and the Organization for Economic Cooperation and Development, in an article published in January 2012 in the [American Economic Journal: Macroeconomics](#).

They continue in the abstract: "Fiscal policy is most effective if it has moderate persistence and if monetary policy is accommodative. Permanently higher spending or deficits imply significantly lower initial multipliers."

What are the values of these multiplier effects, and what about the significant reduction in such effects if fiscal

policy is expansionary over the long term? According to these 17 economists, based on eight different macroeconometric models for the US and four different models for the euro zone, the conclusion is clear: a fiscal stimulus that is in effect for 2 years, accompanied by an accommodative monetary policy (the interest rate is kept low by the central bank) produces multiplier effects that are well above one both in the United States and in the euro zone (between 1.12 and 1.59) if the stimulus plan targets public consumption, public investment or targeted transfers. For other instruments available to government, such as VAT, the effects are smaller, on the order of 0.6, but still decidedly positive.

What if the stimulus is continued? The multiplier effects of a permanent increase in public consumption dwindles, of course, but they remain positive in the euro zone, regardless of the model used and regardless of the assumption made about the monetary policy pursued. Rare cases of negative multiplier effects are reported for the United States, but these depend on the model used or on assumptions about monetary policy.

Finally, a comment and a question raised by this recent article.

The comment: the choice of an optimal fiscal policy in the euro zone is well worth a few moments of reflection, reading and analysis of current work, rather than a truncated and distorted vision of fiscal policy that is judged without fair consideration as harmful to economic activity.

The question: an expansionary fiscal policy has … expansionary effects on gross domestic product; must we really deprive ourselves of an instrument that is, after all, effective?