

# A review of the recent literature on fiscal multipliers: size matters!

By [Eric Heyer](#)

Are the short-term fiscal multipliers being underestimated? Is there any justification for the belief that fiscal restraint can be used to drastically reduce deficits without undermining business prospects or even while improving the medium-term situation? This is the question that the IMF tries to answer in its latest [report on the world economic outlook](#). The Fund devotes a box to the underestimation of fiscal multipliers during the 2008 crisis. While until 2009 the IMF had estimated that in the developed countries they averaged about 0.5, it now calculates that they have ranged from 0.9 to 1.7 since the Great Recession.

This reassessment of the value of the multiplier, which [X. Timbeau discusses in an interesting reading](#) on the basis of a “corrected apparent” multiplier, builds on the numerous studies carried out by IMF researchers on the issue and especially that of [Batini, Callegari and Melina \(2012\)](#). In this article, the authors draw three lessons about the size of the fiscal multipliers in the euro zone, the U.S. and Japan:

1. The first is that gradual and smooth fiscal consolidation is preferable to a strategy of reducing public imbalances too rapidly and abruptly.
2. The second lesson is that the economic impact of fiscal consolidation will be more violent when the economy is in recession: depending on the countries surveyed, the difference is at least 0.5 and may be more than 2. This observation was also made in another study by the IMF ([Corsetti, Meier and Müller \(2012\)](#)) and is explained by

the fact that in “times of crisis” more and more economic agents (households, firms) are subject to very short-term liquidity constraints, thus maintaining the recessionary spiral and preventing monetary policy from functioning.

3. Finally, the multipliers associated with public expenditure are much higher than those observed for taxes: in a recessionary situation, at 1 year they range from 1.6 to 2.6 in the case of a shock to public spending but between 0.2 and 0.4 in the case of a shock on taxes. For the euro zone, for example, the multiplier at 1 year was 2.6 if government spending was used as an instrument of fiscal consolidation and 0.4 if the instrument was taxation.

As the economic crisis continues, the IMF researchers are not the only ones raising questions about the merits of the fiscal consolidation strategy. In an NBER working paper in 2012, two researchers from Berkeley, [Alan J. Auerbach and Yuriy Gorodnichenko](#), corroborate the idea that the multipliers are higher in recessions than in periods of expansion. [In a second study](#), published in the *American Economic Journal*, these same authors argue that the impact of a shock on public expenditure would be 4 times greater when implemented during an economic downturn (2.5) than in an upturn (0.6). This result has been confirmed for the US data by three researchers from the University of Washington in St. Louis ([Fazzari et al. \(2011\)](#)) and by two economists at the University of Munich ([Mittnik and Semmler \(2012\)](#)). This asymmetry was also found for the data on Germany in a study by a Cambridge University academic and a Deutsche Bundesbank researcher, [Baum and Koester \(2011\)](#).

In other work, a researcher at Stanford, [Hall \(2009\)](#), affirms that the size of the multiplier doubles and is around 1.7 when the real interest rate is close to zero, which is characteristic of an economy in a downturn, as is the case today in many developed countries. This view is shared by a

number of other researchers, including two at Berkeley and Harvard, [DeLong and Summers \(2012\)](#), two from the Fed, [Erceg and Lindé \(2012\)](#), those of the [OECD \(2009\)](#), those of the [European Commission \(2012\)](#) and in some recent theoretical work ([Christiano, Eichenbaum and Rebelo \(2011\)](#), [Woodford \(2010\)](#)). When nominal interest rates are blocked by the zero lower bound, anticipated real interest rates rise. Monetary policy can no longer offset budgetary restrictions and can even become restrictive, especially when price expectations are anchored on deflation.

As already noted by J. Creel on this blog ([insert link to the post of 22.02.12](#)) with respect to the instrument to be used, *i.e.* public spending or taxation, other IMF economists together with colleagues from the European Central Bank (ECB) the US Federal Reserve (FED), the Bank of Canada, the European Commission (EC) and the Organization for Economic Cooperation and Development (OECD) compared their assessments in an article published in January 2012 in the *American Economic Journal: Macroeconomics* ([Coenen G. et al. \(2012\)](#)). According to these 17 economists, on the basis of eight different macroeconometric models (mainly DSGE models) for the United States, and four models for the euro zone, the size of many multipliers is large, particularly for public expenditure and targeted transfers. The multiplier effects exceed unity if the strategy focuses on public consumption or transfers targeted to specific agents and are larger than 1.5 for public investment. For the other instruments, the effects are still positive but range from 0.2 for corporation tax to 0.7 for consumer taxes. This finding is also shared by the [European Commission \(2012\)](#), which indicates that the fiscal multiplier is larger if the fiscal consolidation is based on public expenditure, and in particular on public investment. These results confirm those published three years ago by the [OECD \(2009\)](#) as well as those of economists from the Bank of Spain for the euro zone ([Burriel et al \(2010\)](#)) and from the Deutsche Bundesbank using data for Germany ([Baum and Koester](#)

(2011)). Without invalidating this result, a study by [Fazzari et al \(2011\)](#) nevertheless introduced a nuance: according to their work, the multiplier associated with public spending is much higher than that observed for taxes but only when the economy is at the bottom of the cycle. This result would be reversed in a more favourable situation of growth.

Furthermore, in their assessment of the US economy, researchers at the London School of Economics (LSE) and the University of Maryland, [Ilzetzki, Mendoza and Vegh \(2009\)](#), highlight a high value for the fiscal multiplier for public investment (1.7), *i.e.* higher than that found for public consumption. This is similar to the results of other IMF researchers ([Freedman, Kumhof, Laxton and Lee \(2009\)](#)).

In the recent literature, only the work of Alesina, a Harvard economist, seems to contradict this last point: after examining 107 fiscal consolidation plans, conducted in 21 OECD countries over the period 1970-2007, Alesina and his co-authors ([Ardagna in 2009](#) and [Favero et Giavazzi in 2012](#)) conclude first that the multipliers can be negative and second that fiscal consolidations based on expenditure are associated with minor, short-lived recessions, while consolidations based on taxation are associated with deeper, more protracted recessions. In addition to the emphasis on the particular experiences of fiscal restraint (Scandinavian countries, Canada), which are not found when including all experiences with fiscal restriction (or expansion), the empirical work of Alesina *et al.* suffers from an endogeneity problem in the measurement of fiscal restraint.

The notion of a narrative record of fiscal impulse helps to avoid this endogeneity. For example, in the case of a real estate bubble (and more generally in cases of large capital gains), the additional tax revenues from the real estate transactions results in a reduction in the structural deficit, as these revenues are not cyclically based (the elasticity of revenues to GDP becomes much higher than 1). So these are

associated with an expansionary phase (in conjunction with the housing bubble) and a reduction in the structural deficit, which artificially strengthens the argument that reducing the public deficit may lead to an increase in activity, whereas the causality is actually the reverse.

With the exception of the work of Alesina, a broad consensus emerges from the recent theoretical and empirical work in the existing economic literature: a policy of fiscal consolidation is preferable in periods of an upturn in activity, but is ineffective and even pernicious when the economy is at a standstill; if such a policy is to be enacted in a downturn, then tax increases would be less harmful to the activity than cuts in public spending ... all recommendations contained in [Creel, Heyer and Plane \(2011\)](#).