Austerity measures amplified crisis in Spain, Portugal, and Italy

By Philipp Engler and Mathias Klein

The fiscal consolidation efforts of Spain, Italy, and Portugal from 2010 to 2014 did not achieve their goal of reducing the debt-to-GDP ratio in any of the three countries. This Economic Bulletin examines why the spending cuts and tax increases, at times drastic, were unsuccessful and perceptibly contributed to sending the three countries back into recession. The sharp decrease in private household debt played a key role, especially in Spain. It weakened private consumption, and subsequent reductions in public spending amplified the slowdown with negative consequences on growth and tax revenues. The austerity policy also appears to have had a negative impact on productivity, neutralizing the beneficial effects of structural reforms. Contrary to widespread opinion, the lack of structural reforms was not the key reason for the austerity policy's failure. The goal of reducing the debt-to-GDP ratio can only be achieved with a balanced policy mix of structural reforms, mild austerity measures, and if possible, budget reallocation in favor of investment.

In the wake of the global financial crisis that began in 2007–2008, the worldwide recession in 2009, and the subsequent increase in government spending and decrease in revenues, sovereign debt rose significantly in many of the euro area countries (Figure 1). For example, in Spain sovereign debt rose by 22 percentage points between 2006 and 2010, and in Portugal it increased by 27 percentage points. After Europe seemed to have overcome the recession, the governments of many countries implemented a fiscal consolidation process as part of a unified European effort. For example, Italy, Spain, and Portugal all cut government spending and raised taxes beginning in 2010.[1] They initiated these austerity measures[2] in order to return sovereign debt to a sustainable level.[3] However, many countries experienced a second recession starting in 2011. It lasted for several years in some places and was also reflected in a surge in unemployment. In Portugal, for example, the unemployment rate rose to 17 percent in 2013. In Spain, one-fifth of all employable persons did not have work. And the debt-to-GDP ratio continued to rise in all three countries.

This report examines the extent to which the austerity measures undertaken contributed to the relapse into a second recession and the concomitant increase in sovereign debt.

1 Of all the southern European countries that implemented austere savings measures during the period examined, we looked at these three in detail to use them as examples. Greece also made considerable cuts in spending, but we did not include it in the study since the economic collapse there cannot be explained by conventional fiscal multiplier approaches.

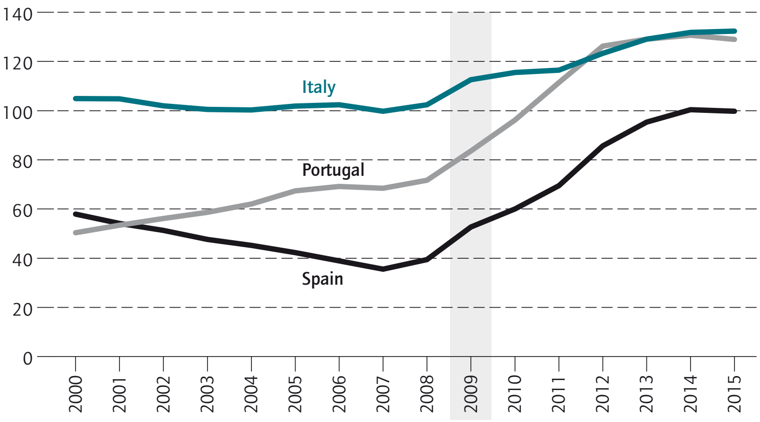
2 We interpret "austerity" as a government budgetary policy that envisages decreased spending and increased revenues in difficult economic times. The goal of each measure or instrument is to reduce the budget deficit and sovereign debt.

3 The debt-to-GDP ratio—the ratio between the public debt level and GDP—is a conventional measurement for this. However, from a scientific viewpoint there is no uniform debt-to-GDP ratio for all countries that could be considered the upper limit for fiscal sustainability.

Figure 1

Public debt ratio of Spain, Portugal, and Italy, 2000 to 2015

Public debt ratio in percent



Source: OECD.

In the course of the austerity measures, the public debt continues to grow.

Economic effects of austerity are debatable

Fiscal multipliers describe the size of the cyclical effects of changes in tax revenues and government spending on economic activity. In the case of austerity, they describe the effect of a reduction in government spending or an increase in tax revenues on GDP. The size of the multipliers is hotly debated in both the theoretical and empirical literature.

According to Keynesian theory, the government spending multiplier is "greater than one." A reduction in government spending by one euro would reduce GDP by more than one euro because of the domino effect on disposable income and private consumption. The cyclical losses associated with a spending reduction are therefore rather large.

An alternative argument states that as a result of fiscal consolidation, consumers should expect a lower tax burden in the future. This means their assets would rise and consumption would not drop but instead, rise. According to this theory, the multiplier is "less than one."

In recent literature, different studies have examined whether the effects of active fiscal policy depend on the prevailing general economic conditions, rendering the size of the multiplier. It was indeed confirmed that the multiplier during a recession is larger than during an economic upswing.[4] A plausible reason for this findings is that during a recession it can be more difficult to access new loans, causing private consumption to drop. Interest rate premiums, for example, typically increase sharply during economic downturns. And the price of real estate also falls, which reduces the assets of private households and makes it even more difficult to qualify for loans. Both trends amplify the effects of fiscal policy during economic downturns. Conversely, banks are more likely to grant loans during economic expansions; interest rate premiums drop; housing prices rise; and government spending cuts have virtually no discernible effects on private consumption.

High private debt amplifies the negative effects of austerity

One part of this report looks at the interplay between private debt and austerity measures. The size of fiscal multipliers crucially depends on the debt burden of private households.[5] For example, if private household debt sharply rises during an upswing and, as a result of falling income or housing prices, the debt burden rises at the beginning of a recession, households will be less willing to apply for new loans. The tendency is to reduce debt, which is only possible by reducing consumer spending and therefore, the total demand for goods. In such an environment austerity will consequently lead to a massive decrease in private consumption. Austerity measures lead to rising interest rate premiums and falling house prices, in turn making it even more difficult to reduce the private debt burden. Austerity measures thus have significant negative effects in a high private debt environment.

These findings are based on a study of 12 OECD countries between 1980 and 2014. The results indicated that a reduction in government spending or increase in tax revenues leads to a much sharper drop in GDP and employment if the level of private household debt is above the long-term average. The study also shows that the primary goal of austerity measures—a reduction in sovereign debt—fails to be realized in times of high private debt. Sovereign debt and the risk of sovereign default increase when austerity measures are implemented in high private debt states.

Spain exemplifies this phenomenon. Until 2008, Spain and the other southern European countries experienced a

4 See Alan J. Auerbach and Yuriy Gorodnichenko, "Measuring the Output Responses to Fiscal Policy," *American Economic Journal: Economic Policy* (2012): 1–27 and Òscar Jordà and Alan M. Taylor, "The Time for Austerity: Estimating the Average Treatment Effect of Fiscal Policy," *Economic Journal* (2016): 219–255.

5 For a detailed discussion, see Mathias Klein, "Austerity and Private Debt," *DIW Discussion Paper* 1611 (2016) and *Journal of Money, Credit and Banking* (forthcoming).

surge in private debt followed by a sharp drop (Figure 2). Measured by GDP, household debt fell from 87 percent in 2007 to below 60 percent in 2014. The rise in private debt servicing caused consumer spending to fall. The fiscal austerity measures implemented as of 2010 amplified this negative development. Just after Spain recovered from the first recession in 2009, the country slid into a second deep economic downturn in 2011. In Portugal and Italy, household debt also rose sharply before the crisis and then fell. However, it fell less sharply there than in Spain.

Austerity measures adversely affect potential output

The second part of this report examines how austerity measures affect potential output.[6] The underlying study was motivated by the observation that many recessions lead to a permanent reduction in overall economic productivity and therefore, lower potential output. By "potential output" we mean the level of economic output using available resources at full capacity that can be achieved without creating inflationary pressure.

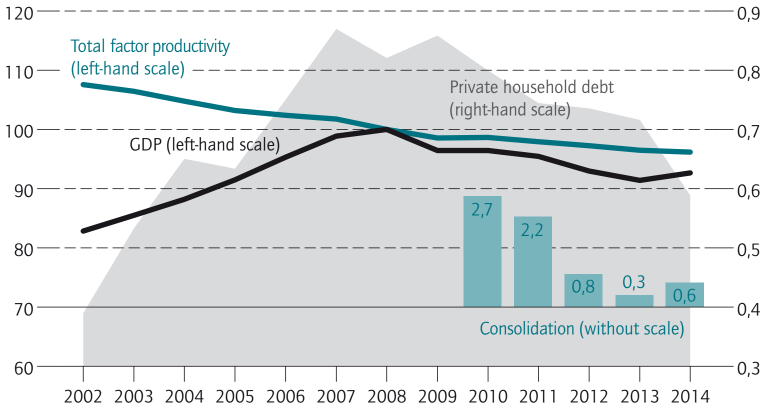
A reduction in potential output was documented most thoroughly for the latest global recession (2008–2009), but it is also evident in many other recessions since World War II.[7] The effect is called "hysteresis" (the continued presence of an effect long after its cause has ceased), and can be explained primarily as a loss of labor force know-how during long phases of unemployment. It makes returning to the job market more difficult due to constantly changing requirements, which in turn reduces aggregate output.

Based on simulations of a theoretical model, it is shown that the effects of fiscal multipliers in recessions characterized by hysteresis are extremely long-lived. It is also demonstrated that austerity measures have markedly adverse effects on GDP and long-term potential output.[8] When hysteresis is at play, the multiplier rises to more than twice the value it has in the absence of hysteresis. If austerity measures amplify falling levels of unemployment and production even further during a

Figure 2

Fiscal consolidation and selected economic indicators for Spain, 2002 to 2014

Private household debt relative to GDP (right-hand scale), GDP in Euro, Total Factor Productivity, 2008=100 (left-hand scale), consolidation measures in percent of GDP



Sources: The Conference Board (2016): The Conference Board Total Economy Data-base, May 2016; Bank for International Settlements: Credit to the non-financial sector database; OECD (2012): "Restoring Public Finances Update"; OECD (2015): "The State of Public Finances".

Private debt declined massively from 2009 onwards.

recession, long-term unemployment will continue to increase and society will lose even more important labor force know-how.

As a result of the fiscal consolidations implemented in 2010 and 2011 respectively, productivity dropped sharply in Portugal and Italy in particular (Figures 3 and 4).[9] After their economic performance changed for the better in 2010, these two countries experienced a second deep recession beginning in 2011. Italy is still in a recession today.

Austerity policy dampens impact of implemented structural reforms

The main goal of fiscal consolidation is to reduce sovereign debt as measured by the debt-to-GDP ratio to a sustainable level. Therefore, the success of an austerity measure can only be assessed if the growth of the real economy is considered at the same time. In this context, advocates of austerity view structural reform as an

6 For a more detailed discussion, see Philipp Engler and Juha Tervala, "Hysteresis and Fiscal Policy," *DIW Discussion Paper* 1631 (2016).

7 See Laurence M. Ball, "Long-term damage from the Great Recession in OECD countries," *European Journal of Economics and Economic Policies: Intervention* 11 (2014):149–160 and Olivier Blanchard, Eugenio Cerutti, and Lawrence Summers, "Inflation and activity. Two explorations and their monetary policy implications," *IMF Working Paper* no. 15/230 (2015) and Robert Martin, Teyanna Munyan, and Beth Anne Wilson, "Potential Output and Recessions: Are We Fooling Ourselves?" *International Finance Discussion Papers* 1145 (2015).

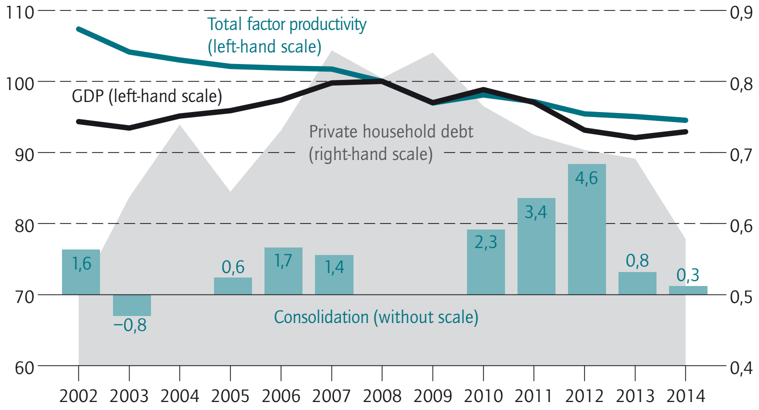
8 The study only shows the impact of an expansionary fiscal policy but because the model used is linear, the results can also be interpreted accordingly for a policy of austerity.

9 Due to the problems inherent in the calculation of potential output, here and in the following section we examine the effect of consolidation measures on overall productivity measured by means of total factor productivity. As previously mentioned, there is a close relationship between productivity and potential output.

Figure 3

Fiscal consolidation and selected economic indicators for Portugal, 2002 to 2014

Private household debt relative to GDP (right-hand scale), GDP in Euro, Total Factor Productivity, 2008=100 (left-hand scale), consolidation measures in percent of GDP



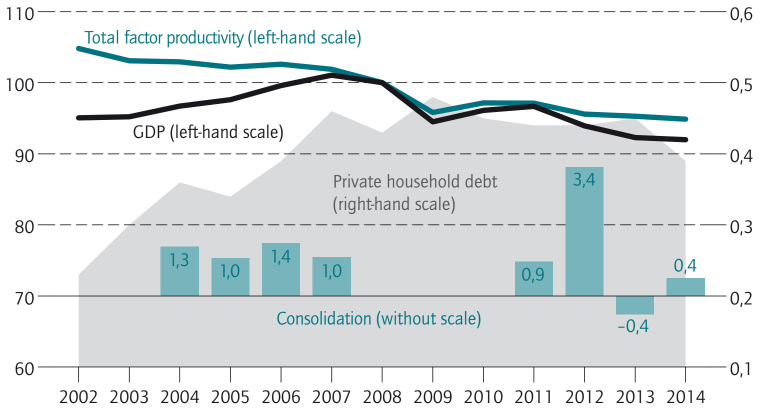
Sources: The Conference Board (2016): The Conference Board Total Economy Data-base, May 2016; Bank for International Settlements: Credit to the non-financial sector database; OECD (2012): "Restoring Public Finances Update"; OECD (2015): "The State of Public Finances".

GDP experienced is strongest decline in 2012 when fiscal consolidation was the most intense.

Figure 4

Fiscal consolidation and selected economic indicators for Italy, 2002 to 2014

Private household debt relative to GDP (right-hand scale), GDP in Euro, Total Factor Productivity, 2008=100 (left-hand scale), consolidation measures in percent of GDP



Sources: The Conference Board (2016): The Conference Board Total Economy Data-base, May 2016; Bank for International Settlements: Credit to the non-financial sector database; OECD (2012): "Restoring Public Finances Update"; OECD (2015): "The State of Public Finances".

Italy has been in a recession since 2011.

essential complement to national budget consolidations. Ideally, the reform measures should have the goals of improving competition and increasing potential output, ultimately expanding GDP. This relationship between at least a large number of concrete structural reforms (i.e., improving access to loans or streamlining bureaucratic processes) and economic growth is certainly undisputed for the long term. The higher economic growth it generates should improve a country's ability to bear a specific burden of debt. However, its short-term impact is debatable.

During the period of the study (2010–2014) in Italy, Spain, and Portugal, extensive structural reforms to improve the way markets functioned and thereby boost companies' competitive edge were successfully implemented. Indicator sets in the *Doing Business* report, a World Bank project, show the extent to which the general conditions in specific countries promote growth. In all three of the countries, the indicator rose between 2010 and 2014—especially in Portugal (Figure 5).[10, 11] Accordingly, the austerity measures went hand in hand with structural improvement, even though the distance between the three and the leading countries remains significant.

In view of the current scientific studies, it is not surprising that economic activity fell despite the reforms. Recent studies[12] have shown that structural reforms lead to a drop in GDP—at least in the short term. This holds especially true in times of low interest rates, which was the situation in the euro area during the period of our study.[13] The reforms carried out appear to have amplified the negative impact of the austerity policy. In the case of Spain, Italy, and Portugal, the interaction between the austerity measures and structural reforms generated a downward spiral of shrinking GDP and continued increases in sovereign debt (Figure 1)—the exact opposite of the intended goals.

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10 We show the "distance to frontier" index in 2010 and 2014, an indicator that measures the gap between a specific economy's performance and the best performers – the frontier – at any point in time. The OECD also confirmed the structural improvements in the respective countries. See OECD, "Portugal," *Better Policy Series* (2014) and OECD, "Structural reforms in Italy: impact on growth and employment" (2015) (available online).

11 In the years following 2014, the three countries continued to show improvement (available online).

12 Gauti Eggertsson, Andrea Ferrero, and Andrea Raffo, "Can structural reforms help Europe?" *Journal of Monetary Economics* vol. 61 (C) (2014) and Jordi Galì and Tommaso Monacelli, "Understanding the Gains from Wage Flexibility: The Exchange Rate Connection," *American Economic Review* vol. 106 (2016): 3829–68.

13 Structural reforms typically lead to a fall in prices. In times when the nominal interest rate is at its lower limit, the deflationary pressure triggered by this causes the real interest rate to rise. And in turn, rising real interest rates throttle the investment activities of private companies, causing economic activity to decrease.

Conclusions

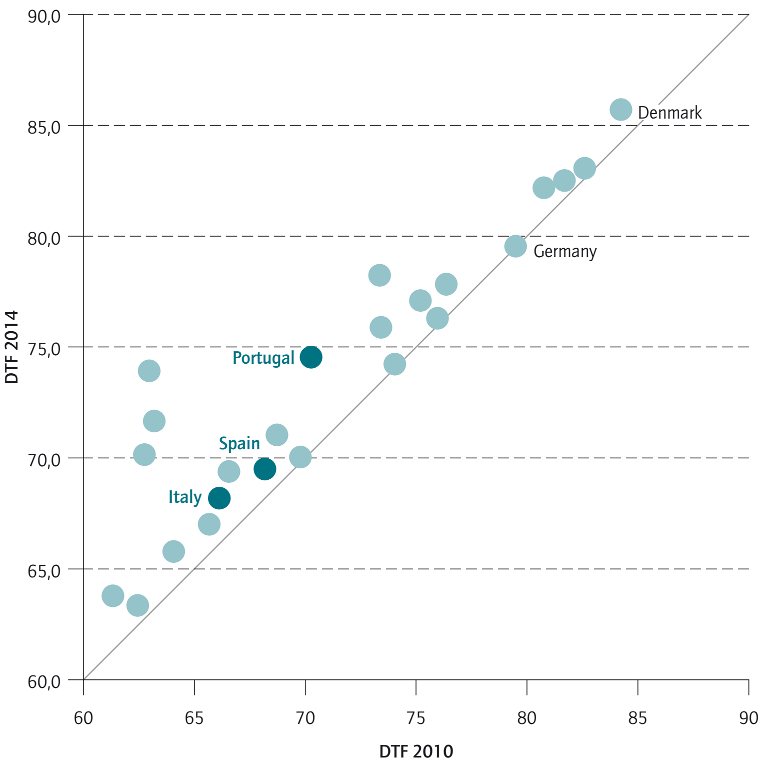
Contrary to widely held public opinion, the failure of fiscal consolidations to reduce the public debt-to-GDP ratio in Spain, Italy, and Portugal between 2010 and 2014 is not the result of inadequate structural reform. The three countries clearly made an effort to create a more competitive business climate. However, the austerity measures they carried out neutralized some of the effects of the reforms. The measures clearly had negative economic consequences in these three economies, which failed to achieve the goal of fiscal consolidations. The massive deleveraging of private households played an important role in this process. It led to a reduction in consumer spending that was amplified by the reduction in public spending.

However, in view of the high debt burden, a perceptible expansion of government spending starting in 2010 would have sent a fatal signal to financial markets. Further, the three countries in the study are part of the euro area and must follow its institutional frameworks and rules.[14] Regardless of the degree of integration progress in the areas of a coordinated fiscal policy integration and debt management[15] as well as the development of a procedure for sovereign insolvency on the European level,[16] on the national level the focus should be on a consistent, synchronized mix of policies. The policy mix should consist of structural reform – for example, raising the retirement age, job market reforms, streamlining bureaucracies, and tax system reform – and rather modest budget consolidations.[17] Budget reallocations in favor of investment are also advisable. A combination of measures like these would increase potential output in the medium term, relieving public budgets by increasing tax revenues.

Figure 5

Distance to Frontier of Doing Business Indicator, selected EU-countries

2010 compared to 2014



Source: World Bank.

Doing business has become easier for companies in Spain, Portugal, and Italy between 2010 and 2014.

14 For the special challenges to public finances faced by euro area member states, see Paul De Grauwe and Yuemei Ji, "Mispricing of Sovereign Risk and Multiple Equilibria in the Eurozone," *CEPS Working Document* no. 361 (2012) and Orkun Saka, Ana-Maria Fuertes, and Elena Kalotychou, "ECB policy and Eurozone fragility: Was De Grauwe right?" *Journal of International Money and Finance*, vol. 54, June 2015 (2015): 168–85.

15 Also see the proposal for "safe European assets" (available online) and Philipp Engler and Christoph Große Steffen, "Sichere Anleihen für die Währungsunion: Stärkung des Bailout-Verbots durch ein stabileres Finanzsystem," *DIW Wochenbericht* no. 36. (2014): 827–37.

16 For a useful overview of the current discussion and a new proposal, see Jochen Andritzky et al., "A Mechanism to Regulate Sovereign Debt Restructuring in the Euro Area," *German Council of Economic Experts Working Paper* 04/2016 (2016) (available online).

17 Also see IMF staff, "Staff note for the G20—a guiding framework for structural reform," (2016) (available online).

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