Back to the Future: Lessons from the 2009-2012 Austerity Policies for the COVID Crisis in Europe

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Abstract

This paper studies the relationship between austerity intensity and the internal and external adjustment processes in the Eurozone. Austerity is associated with higher public debt and lower growth in the period 2009-2012. In the years 2012-2018 growth recovered due to the reduction of unit labor cost and the depreciation of real exchange rates, which led to the improvement in the trade and current account balances. Internal devaluation and not necessarily austerity measures were behind this shift. These results bring important lessons for the COVID-19 crisis management from the perspective of growth and public debt stability.
1 Introduction

The goal of this article is to evaluate the consequences of austerity programs on economic adjustment during recessions and subsequent recoveries and to shed some light on the effects that different policy paths for the COVID-19 crisis could have in Europe. As the International Monetary Fund (October 2020) points, the longer accommodative fiscal policies can stay in place, the milder the economic impact of the recession will be.

In this context, it is necessary to re-examine the short and long term effects that expansionary fiscal, and subsequent austerity, policies had in Europe during the last recession. To answer this research question, we study the case of the Eurozone in the period 2009-2018 using the methodology originally developed by De Grauwe and Ji (2013).

We update and expand their work with a set of expansionary austerity and internal and external adjustment indicators. The results obtained in this paper show that austerity programs had a negative impact on public debt both in the short-run (2009 to 2012, when most of the consolidation measures were put in place) and in the long-run (2012 to 2018, when austerity intensity was weaker and most of the results tangible). In the long run the negative impact of austerity on growth is reversed, due to the internal adjustment process, with lower prices and wages and a positive contribution of the external sector.

Budget deficit reduction policies in the Eurozone in the period 2009-2018 are usually grouped under the name of “austerity measures”, according to Alesina et al. (2015) and other authors (Blyth, 2013). The main goal of these policies is to achieve public sector sustainability. They were initially put in place as a response to the increase in sovereign bond yields in peripheral Eurozone countries, after the the first bail-out of the Greek economy, in May 2010.

Greece was soon followed by Ireland, Portugal and Spain. The four countries received different kind of assistance from the European Central Bank (ECB), the International Monetary Fund (IMF) and the European Commission. In all the three
cases, public sector adjustment measures were part of the conditionality attached to the credit lines.

The weak performance of those economies in the period 2009 - 2013 led to an increasing unease with austerity measures (De Grauwe and Ji, 2013). Figure 1 compare the evolution of Gross Domestic Product (GDP) and General Government net lending / borrowing (% of GDP) during the Great Recession and the COVID crisis. We take year $t$ as the last year with positive GDP growth before the first contraction. We use forecasts from October 2020 WEO to estimate the evolution of both indicators beyond 2020.

![Figure 1: Great Recession vs. COVID Crisis](image)

Latest data suggest that the depth of the GDP fall will be much higher during the COVID crisis than during the Great Recession. Forecasts also agree on a faster recovery. The impact on budget balance will be similar with a higher public debt stock.

Austerity programs were far from paying off in the year 2013. There was “no evidence that they have increased the capacity of debtor countries to service their debt”, according to De Grauwe and Ji (2013). They identify a positive relationship between austerity intensity and government debt, and between austerity intensity and budget balance.

That relationship is negative for the GDP growth. In this article we update and expand DeGrauwe and Ji’s results until 2018 and compare them with those for the period 2009-2012. Our analysis considers the 2009-2018 window to guarantee comparability.
with De Grauwe and Ji (2013) results, to include all the period up to the conclusion of the bail-out agreement between Greece and the European institutions and to estimate the long term effects of austerity on growth; evidences in this regard might be relevant for the post-COVID crisis policy track.

2 Methods

2.1 Data

All the data used in this article is publicly available. We have obtained from Eurostat the following variables: Public Debt to GDP ratio, GDP Growth, Labor Costs and Current Account Balance to GDP ratio. Household Consumption and Gross Fixed Capital have been retrieved from the World Bank’s World Development Indicators. Sovereign bond yields and the deflator index have been obtained from the ECB. Austerity Intensity, as it will be explained later, has been built using the General Government Primary Balance, which has been also retrieved from Eurostat records.

Regarding the time frame, we begin analyzing the impact of austerity for the 2009 to 2012 period, for replication purposes with (De Grauwe and Ji, 2013), and we update and expand those results for the 2012 to 2018 period.

2.2 Dependent Variable

The dependent variable that we include in our study is austerity intensity, as developed by De Grauwe and Ji (2013). This indicator is built as the difference, between any considered years, of the General Government Cyclically Adjusted Primary Balance, as a percent of GDP. The larger the difference, the more intense the austerity adjustment process.
2.3 Independent Variables

Independent variables are grouped in three big categories. Those three categories are the same ones in which we structure the Results section. The first set of indicators mimics De Grauwe and Ji (2013). We update those results for the period 2009-2018. In this case, independent variables are the Public Debt to GDP ratio and GDP Growth.

The second group of independent indicators capture what the literature calls “expansionary fiscal consolidation”: household consumption, gross fixed capital formation and 10-year sovereign bond yields, which captures fiscal space. The third category of independent variables is formed by the internal and external adjustment indicators: the deflator index, labor costs and current account balance to GDP ratio.

2.4 Analysis

We study the correlation between each of the independent variables and the dependent variable in four different time windows. The first one, from 2009 to 2012, replicates De Grauwe and Ji (2013) approach and captures the relationship between the different indicators during the periods in which GDP contraction was deeper and austerity intensity higher. The second one and the third one, from 2012 to 2015 and from 2015 to 2018, capture the impact of austerity in the mid and long run, after its implementation. Finally, we consider the 2009 to 2018 window to examine the correlation for the entire period and to check for the robustness of the obtained results.

3 Results

3.1 Replicating De Grauwe and Ji

The first group of results captures the correlation between austerity intensity and public debt, and between austerity intensity and GDP growth. Figure 2 shows the correlation between austerity intensity and public debt to GDP ratio. Public debt is measured as the change in gross sovereign debt to GDP percentage ratio between two given years.
Figure 2: Change government debt to GDP ratio and austerity

The results in Figure 2-a are consistent with those found by De Grauwe and Ji (2013) and other authors (Ersoy and Yanmaz, 2016). The intensity of austerity policies is highly correlated with increases in the public debt to GDP ratio. This result suggests that fiscal consolidation policies in the Eurozone were not able to reduce public sector vulnerabilities in the period 2009-2012.

In the period 2012 to 2015, the relationship between austerity intensity and public debt turns to be negative. Austerity intensity is much weaker in those years than in the previous ones, but this result rises the question of whether austerity could help to reduce public debt in the long run. From 2015 to 2018 results show a slightly
positive relationship, but almost statistically non-significant due to the reduction on the intensity of the different austerity programs.

Finally, the joint analysis for the period 2009-2018 shows that the positive impact that austerity measures may have on debt reduction between 2012 and 2015 is not strong enough to overcome the increase experienced when austerity policies were more aggressive, from 2009 to 2012.

Figure 3 shows the correlation between austerity intensity and GDP growth. GDP growth is measured as the cumulative growth of real GDP for the different periods. Results show that there is a negative correlation between austerity intensity and GDP growth for the 2009-2012 period. That relationship turns to be positive in the 2012-2015 window and negative again until 2018. The negative relationship of the 2009-2012 period is very weak for the entire period due to the recovery experienced in the Eurozone from 2012; austerity is positively correlated with GDP growth in the period 2012 to 2015.

### 3.2 Expansionary Austerity?

In the second group of results, we study the relationship between austerity intensity and three indicators that capture what the literature calls “expansionary fiscal consolidation” (Afonso, 2006): household consumption, gross fixed capital formation and 10-year sovereign bond yields. A positive relationship between any of this indicators and austerity intensity could explain the change in GDP versus austerity intensity coefficients shown in Figure 3.

Figure 4 shows the correlation between austerity intensity and household consumption, which is measured as the cumulative growth from national accounts. There is a negative correlation between both variables for the period 2009-2012. This correlation turns to be positive from 2012 to 2015, although with a low coefficient. Consumption would be partially behind the change in GDP growth from the period 2009-2012 to the period 2012-2018 contained in Figure 3, something confirmed by the low correlation shown between 2015 and 2018, even if it has a negative sign.
Figure 3: Cumulative GDP growth and austerity

Figure 5 shows the relationship between austerity intensity and the cumulative change in Gross Fixed Capital (GFC). Results highlight that austerity is correlated with lower investment in the period 2009 to 2012. In the period 2012 to 2018 the sign of the correlation and turns to positive, which should partially explain the changing behavior of GDP growth in Figure 3. The positive relation between austerity intensity and GFC for the period 2012-2018 is weaker than the negative one found in the period 2009 to 2012, which affects the intensity of the correlation for the whole sample (2009 to 2016).

Austerity intensity is negatively correlated with household consumption and with gross fixed capital formation in the years 2009 to 2012. The sign of that correlation
Figure 4: Cumulative household consumption and austerity changes, for both variables, in the period 2012 to 2018. That fact seems to be behind the evolution of GDP described in Figure 1 and Figure 3.

Austerity programs should help to reduce default risks, to curb sovereign bond yields, to create fiscal space and to increase economic growth in the long run. Results contained in Figure 6 show a negative correlation between fiscal consolidation intensity and average bond yields change during the period 2009-2012, when the OMT and other monetary stimuli were announced and implemented.

Once ECB’s fiscal policy was set into motion, it altered sovereign market conditions to the extent of turning the relationship between austerity intensity and sovereign yields
Figure 5: Cumulative GFC and austerity

into a positive sign in the next three years. The negative sign returned for the 2015-2018 period and for the joint analysis as well.

3.3 Internal Devaluation and Adjustment

Finally, we also test the correlation between austerity and three internal and external adjustment indicators: labor costs, inflation and current account balance. According to Gros (2012), there is a positive correlation between domestic demand and unit labor costs. A decrease in domestic demand would be associated with lower labor costs. In the following section we examine the relationship between austerity, labor costs and
Figure 6: Change in sovereign bond yields and austerity

external indicators to assess whether they can be also explaining the evolution of GDP in the observed period.

Fiscal consolidation policies can take the form of either tax rates hikes or government spending reductions. They have a negative impact on domestic demand in both cases. The reduction of domestic demand is connected with higher unemployment, lower labor costs and lower general prices. This internal devaluation process should increase competitiveness and exports, rising economic activity.

Figure 7 shows the relationship between austerity intensity and inflation. Price growth is measured as the change in the GDP deflator index published by the International Monetary Fund (IMF). Results show a negative relationship between austerity
and price levels for the economies in the sample in the period 2009 to 2012. For the whole 2009 to 2018 period, the relationship between austerity is also negative. For the periods 2012 to 2015 and 2015 to 2018, however, the relationship turns to be positive, but with a low coefficient of determination.

Figure 7: Change in GDP deflator index and austerity

Figure 8 shows the relationship between cumulative labor costs and austerity intensity. Labor costs show that the impact of austerity on labor market is felt during the entire 2009-2018 period. This fact suggests that weaker activity is transferred to labor market through, not only higher unemployment rates, but also through lower wages.

The internal adjustment process described in Figures 6 to 8 should have an impact in the evolution of exports and current account balance. This process is not driven.
Figure 8: Cumulative change in labor costs and austerity

only by austerity programs but it is also the consequence of the reforms imposed for peripheral Eurozone countries, as De Grauwe and Ji (2016) and the ECB (2012) point out.

Figure 9 shows the correlation between fiscal consolidation programs intensity and external competitiveness. External competitiveness is measured as the difference in current account balance to GDP ratio from one year to another.

Results show a positive correlation between austerity and the current account balance to GDP ratio in three of the four periods analyzed. These results seem to confirm the hypothesis previously stated. The coefficient of the correlation is higher
Figure 9: Current account balance difference and austerity for the 2009 to 2018 period, which suggests that the impact of austerity on external competitiveness is not immediate.
4 Discussion

In their article, De Grauwe and Ji found that austerity is highly correlated with larger public debt to GDP ratios and with lower economic performance. Our results confirm that hypothesis, not only for the period 2009 to 2012, but also for the years 2009 to 2018.

Data shows that the correlation between austerity intensity and GDP growth is weaker in the period 2012 to 2015 than in 2009 to 2012 period. This also happens in the years 2015 to 2018, when austerity measures were reduced to its minimum. The are two possible explanations for this phenomenon.

The first one is connected with expansionary austerity theories. Results show that austerity is negatively correlated with household consumption and private investment for the period 2009 to 2012 and positively correlated for the period 2012 to 2015. Austerity intensity is positively correlated with bond yields for the whole 2009 to 2018 period. These results suggests that the negative impact of austerity on growth, through its different channels. That could partially explain the weaker relationship found between austerity and GDP growth from 2012 on.

The second one has to do with internal devaluation and competitiveness. We have found a negative correlation between austerity intensity and inflation, and between austerity intensity and labor costs. That fact suggest that Eurozone economies experienced a process of internal devaluation that, according to the literature, could be driven by austerity policies. That process seems to be connected with the evolution of current account balance. Austerity and current account balance are positively and strongly correlated, suggesting a positive impact of net exports on economic growth.

In the current COVID crisis context, given the expected length and depth of the recession, internal devaluation processes will probably occur in the European context. Austerity policies would only damage growth in such a contractive environment.

All these conclusions should be tentatively taken since the results that we have obtained are driven by simple correlations. However, results open the door to combine internal devaluation with expansionary fiscal and monetary policies. To obtain a sus-
tainable growth recovery, it will be necessary a significant increase in domestic demand in the northern European countries with a surplus in their current account balances, and/or an important recovery in international trade.

There is also a broad consensus on the literature (Mundell (1961), De Grauwe and Ji (2016) and Baldwin and Giavazzi (2016)) on the importance of an adequate institutional framework for the adjustment process in a monetary union. Austerity programs have a negative impact on consumption, investment and growth in the short-run. The cost of the adjustment could have been lower with a more accommodative fiscal policy, as it happened in the following years, and if the ECB had acted as backstop for sovereign defaults. European policymakers should try to reduce the cost of internal adjustments to avoid the mistakes correctly identified by Skidelsky (2015). Only an adequate institutional framework and better counter-cyclical economic measures, as Frieden and Walter (2017) point, will do that.

5 Conclusions

This article studies the relationship between austerity intensity and a set of macroeconomic indicators to the light of De Grauwe and Ji (2013). Results show that the negative impact of austerity on growth from 2009 to 2012 was followed by a period of internal devaluation in a context of accommodative fiscal and monetary policies that led to the recovery of the Eurozone from 2012 to 2018. This result is consistent with the literature on austerity in the Eurozone (Gualerzi, 2017).

The long-term positive effect of internal devaluation takes years to occur and generates a huge negative impact in the short run, which is not affordable in the current COVID crisis context, even if austerity doesn’t operate in the same way for all countries (Alesina et al., 2019). European policymakers seem to have changed their minds (Next Generation and national fiscal initiatives) and now try to alleviate the cost of internal adjustments with measures to improve growth and with the redesign of an adequate institutional framework that helps to cope with future public sector crisis.


