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The impact of fiscal austerity on suicide mortality: Evidence across the ‘Eurozone periphery’

Nikolaos Antonakakis [a, b, c, *], Alan Collins [a]

[a] University of Portsmouth, Economics and Finance Subject Group, Portsmouth, Business School, Portland Street, Portsmouth PO1 3DE, United Kingdom
[b] Vienna University of Economics and Business, Department of Economics, Institute for International Economics, Welthandelsplatz 1, 1020 Vienna, Austria
[c] Webster Vienna Private University, Department of Business and Management, Praterstrasse 23, 1020 Vienna, Austria

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A B S T R A C T

While linkages between some macroeconomic phenomena and suicides in some countries have been explored, only two studies, hitherto, have established a causal relationship between fiscal austerity and suicide, albeit in a single country. The aim of this study is to provide the first systematic multiple−country evidence of a causal relationship of fiscal austerity on time−, gender−, and age−specific suicide mortality across five Eurozone peripheral countries, namely Greece, Ireland, Italy, Portugal and Spain over the period 1968–2012, while controlling for various socioeconomic differences. The impact of fiscal adjustments is found to be gender−, age− and time−specific. Specifically, fiscal austerity has short−, medium− and long−run suicide increasing effects on the male population in the 65–89 age group. A 1% reduction in government spending is associated with a 1.38%, 2.42% and 3.32% increase in the short−, medium− and long−run, respectively, of male suicides rates in the 65–89 age group in the Eurozone periphery. These results are highly robust to alternative measures of fiscal austerity. Improved labour market institutions help mitigate the negative effects of fiscal austerity on suicide mortality.

1. Introduction

Although fiscal austerity is widely discussed in the economic literature, much less has been published in terms of empirical evidence documenting its impact on suicide mortality. Some headway in filling this gap has been made in recent years, with studies focusing on descriptive or correlation analyses (see, for instance, Kentikelenis et al., 2011; Economou et al., 2011; Kentikelenis et al., 2012; Fountoulakis et al., 2012; Karanikolos et al., 2013) and on single country time series (Antonakakis and Collins, 2014; Branas et al., 2015). In this study, we report the first systematic multiple-country evidence of a relationship between fiscal austerity and suicide mortality, basing our analysis on a Eurozone periphery panel dataset, thereby covering a large share of countries that have recently implemented fiscal austerity in an attempt to restore confidence, competitiveness, and macroeconomic stability.

According to Lawson et al. (2014), the key drivers of population health lie outside the health sector. Despite that, the authors argue that, decision makers outside the health sector seem primarily interested in delivering sector specific outputs other than health. Economic approaches to priority setting can help align sectors to consider the intersectoral impacts of decisions within an integrated societal framework.

Following the global financial crisis of 2008, many European countries, especially in the Eurozone periphery, experienced an increase in their budget deficits and government debts in late 2009. That raised fears about a chain reaction of sovereign defaults on the Eurozone peripheral countries' debt, and possible contagion to other core Eurozone countries. This led to a crisis of confidence and a widening of bond yield spreads and credit default swaps between the Eurozone peripheral countries and the Eurozone's largest economy, Germany. These developments have ultimately initiated a European sovereign debt crisis that has resulted in large financial interventions by individual governments and the ‘Troika’ (consisting of the European Commission (EC), the European Central Bank (ECB) and the International Monetary Fund (IMF)) in the Eurozone peripheral countries. These policy interventions occurred in an attempt to avert potential bankruptcies of highly indebted countries in the Eurozone periphery, potential contagion and ultimately the collapse of the Eurozone itself. In particular, fiscal austerity

* Corresponding author. University of Portsmouth, Economics and Finance Subject Group, Portsmouth, Business School, Portland Street, Portsmouth PO1 3DE, United Kingdom.
E-mail addresses: nikolaos.antonakakis@port.ac.uk, nikolaos.antonakakis@webster.ac.at (N. Antonakakis).

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packages consisted of bailout packages to Eurozone peripheral countries that were accompanied by draconian and unprecedented fiscal adjustment measures. These consisted of large spending cuts, tax hikes, large privatisation schemes of publicly owned assets (with often largely overoptimistic initial sale values) and structural reforms, so as to restore competitiveness, achieve fiscal sustainability and promote growth.

Eventually, as business cycle theory suggests, every crisis comes to an end, and a 'good' policy is marked by its success in making the downturn of the business cycle shallower and shorter than it otherwise would have been. The controversy associated with austerity policies that many governments adopted relates to whether they made the downturn far deeper and longer than was necessary, with long-lasting consequences not only for wealth, but also for health. Thus a natural and important question is whether fiscal austerity will hurt economic performance and health conditions over time.

In terms of the economic consequences, conventional wisdom suggests that reduction of debt into sustainable levels has long−run benefits. For a recent detailed discussion of the macroeconomic effects of fiscal policy, see Afonso and Sousa (2012). However, there is no consensus reached yet on the short−run, or even the medium−run effects of fiscal consolidation/austerity. Keynesian economists might suggest that spending cuts and tax hikes will reduce economic activity in the short−run (see, for instance, Blanchard and Perotti, 2002). On the other hand, some economists argue that fiscal consolidation/austerity may be expansionary even in the short−run, which is referred to as "expansionary fiscal contraction" (see, for instance, Giavazzi and Pagano, 1990; Alesina and Perotti, 1995; Giavazzi and Pagano, 1996; Giudice et al., 2004; Afonso, 2010; Alesina and Ardagna, 2010; Alesina, 2010). The success or failure of fiscal consolidation depends on many factors, among which, its reliability on tax hikes primarily, the perceived risk of sovereign default, the number of countries that simultaneously apply such measures, and whether monetary policy is in position to offset budget cuts. For a discussion of these factors, see IMF (2010). Quite recently, the fairness of fiscal consolidation has entered the pool of these factors (Kaplanoglou et al., 2014).

Increasingly, the pursuit of fiscal austerity is being recognized by some as ineffective and prolonging the economic crisis unnecessarily (IMF, 2013). This is because any reduction in the fiscal deficit hurts the economy −at least in the short-to medium-term−, as it denotes that the government sector has a less positive contribution to the economy, which is compounded when the government is running a deficit. In light of Fig. 1, the Eurozone debt crisis and the subsequent fiscal austerity may be considered to have led to a dramatic increase in government debts and deficits, deep recessions and skyrocketing unemployment rates in the Eurozone periphery since 2009. In particular, between 2009 and 2013, unemployment rates in Greece, Ireland, Italy, Portugal and Spain increased by 186.5% (from 9.6% to 27.5%), 9.2% (from 12% to 13.1%), 56.4% (from 7.8% to 12.2%), 54.7% (from 10.6% to 16.4%) and 45.8% (from 17.9% to 26.1%), respectively. Youth unemployment in the respective countries over that period increased by 126.8% (from 25.7% to 58.3%), 11.7% (from 24.7% to 26.8%), 57.5% (from 25.4% to 40%), 51.8% (from 25.1% to 38.1%) and 47.2% (from 37.7% to 55.5%). These figures are well above the Eurozone average increase of 26.3% (from 9.5% to 12%) and 18.8% (from 20.2% to 24%) in overall unemployment rates and youth unemployment rates, respectively. There is a well established link between unemployment and suicide, which tends to increase during economic downturns, particularly where it is not offset by welfare safety nets. For a more comprehensive list of suicide mortality determinants, see Chen et al. (2012). Moreover, the literature suggests that periods of high unemployment rates are positively associated with incidence rates of absence due to symptoms of illness and violent acts (see, e.g., Shoss and Penney, 2012). According to the International Labour Organization (ILO), labour market conditions in the Eurozone have worsened (and are projected to continue to this course) due to fiscal austerity, constituting to the increase of unemployment rates (ILO, 2014) in the EU. In particular, the study of ILO (2014), argues that the current fiscal austerity measures and the cuts in government spending have heavily affected the funds available for social programmes for the most vulnerable groups of women. In, 2013, 45.2 million people where unemployed in the EU and it was forecasted that the unemployment rate will gradually decline from 8.6% to 8% between 2013 and 2018, albeit, significantly above that in 2008 (ILO, 2014). Real GDP per capita between 2009 and 2013 has seen a cumulative decline of 22.3% in Greece, 0.74% in Ireland, 3.11% in Italy, 2.84% in Portugal, and 2.92% in Spain as compared to the cumulative increase of 0.94% in the whole Eurozone according to Fig. 1. Finally, government debt as a percentage of GDP between the same period increased by 35.0% (from 129.7% to 157.1%), 92.1% (from 64.4% to 123.7%), 13.9% (from 116.4% to 132.6%), 54.1% (from 83.7% to 129%) and 73.9% (from 54% to 93.9%), in Greece, Ireland, Italy, Portugal and Spain, respectively, well above the Eurozone average government debt to GDP of 92.6% in, 2013.

The effects of the economic crisis and the fiscal adjustments have to some limited extent been considered for health in the Eurozone periphery. Preliminary evidence indicates that the economic crisis and the implementation of austerity measures have worsened self-rated health status as well as several other health indicators (Kentikelenis et al., 2011; Vandoros et al., 2013; Zavras et al., 2013), increased the incident of mental disorders and alcohol abuse (Kentikelenis et al., 2011; Gili et al., 2013; Roca et al., 2013) and led to HIV outbreaks (ECDC, 2012). Evidence also suggests that the Eurozone debt crisis and the policy responses disproportionately affected vulnerable populations in society (see, e.g., Schaltegger and Weder, 2014; for the effects of fiscal consolidation on income inequality). Despite countries' attempts to make savings by switching to generic drugs, the policies that have been implemented to shift costs from the state to patients resulted in medicines growing less affordable and increasingly hard to access (Arie, 2013). Data, however, also suggest favourable health trends and a reduction of traffic deaths fatalities in the general population during recessions (Stuckler et al., 2009). This is in line with the literature that finds that work-related, and other types accidents (e.g. due to drinking and driving behaviours) are likely to become more common during temporary expansions of economic activity (see, for instance, Evans and Graham, 1988; Ruhm, 1995). Dolan et al. (2014), however, finds that road traffic accidents increased substantially in Greece on the first two days following the announcements of austerity measures. Moreover, egalitarian policies protecting the most disadvantaged populations with strong social protection have proved to be effective in decoupling the link between job losses and suicides (De Vogli, 2014).

Yet, the health effects of fiscal austerity have been shown to have not been assessed consistently (see, for instance, Webb and Kapur, 2015). Empirically robust evidence on the link between fiscal austerity and suicide mortality has only been establish in Greece by Antonakakis and Collins (2014) and Branas et al. (2015), or via descriptive and/or correlation analyses in Greece and other Eurozone peripheral countries (see, for instance, Kentikelenis et al., 2011; Economou et al., 2011; Kentikelenis et al., 2012; Fountoulakis et al., 2012; Karanikolos et al., 2013).

To address this gap in the literature, we specifically investigate the effects of fiscal austerity, among other socio-economic control variables, on suicide rates in all Eurozone peripheral countries, namely, Greece, Ireland, Italy, Portugal and Spain over the period