

How big is the risk of contagion from Greece to the rest of the Eurozone?

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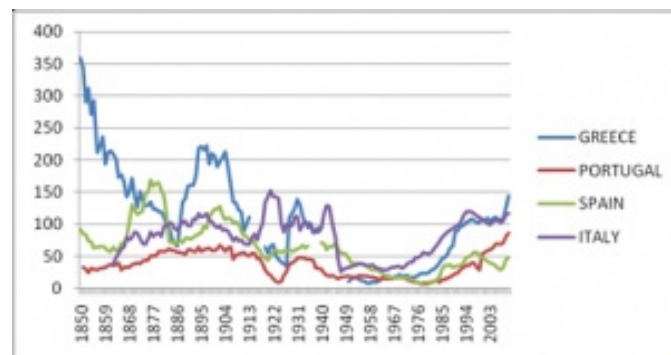
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While the latest turmoil in the Greek political scene is under way, Eurozone leaders for the first time openly admit the unthinkable: Greece might have to leave the Euro for the single currency to survive. So far, the risk of spillover effects from Greece to the remaining of Europe's peripheral countries has been contained through (i) two successive bail-out Greek packages (for €110bn in May 2010 and then again for €109bn in July 2011) and (ii) and the "brave" decision by the European Central Bank to purchase European peripheral government bonds in an attempt to buy time and inject liquidity in financial markets. Nevertheless, as the cost of servicing Italian, Portuguese and Spanish government bonds is on the rise, it becomes increasingly evident that a solid "firewall" around Greece needs to be built. In practical terms, this, according to Eurozone leaders, might involve Greece's exit from the Euro.

The pressing question is the following: If Greece goes, how big is the risk for the remaining Eurozone countries? To answer this, we rely on long debt-to-GDP historical data for Greece, Italy, Portugal and Spain (the dataset comes from the website of Prof Carmen Reinhart, Senior Fellow at the Peterson Institute for International Economics).

Figure 1: Debt-to-GDP ratios (%) for Eurozone Peripheral Countries, 1850-2010



Using an econometric methodology called *Granger causality test*, we find that any substantial rise in debt and any incidence of default in one Eurozone peripheral country transmits to the remaining peripheral countries. Therefore, there is statistical evidence of causality from one country to another (and vice versa). Obviously, country-specific credit default swap (CDS) premia represent a more direct measure of the probability that a country will default on its debt. These data are only available from 2004 onwards. For completeness, we repeat our statistical analysis using CDS premia and again, reach the conclusion that the risk of default is directly transferable between countries.

From a historical point of view, going for example back to 1892, we note that Portugal defaulted on its debt. Shortly after, in 1893, Greece also defaulted on its debt. Strikingly, despite defaulting on their debt obligations, neither Greece nor Portugal got an easy ride. Indeed, some 15 years after defaulting on their debt obligations, both Greece and Portugal piled up stock of debt of the same size at the very time of default!

Therefore, our analysis suggests that:

- 1) The risk of contagion effects is very real (whether Greece stays in or leaves the Euro), and
- 2) A default is not necessarily going to lower the country's future debt burden.

At least, this is what history and statistics are telling us.