Cambridge Journal of Economics 2013, 1 of 23
doi:10.1093/cje/bet075

Does high public debt consistently stifle economic growth? A critique of Reinhart and Rogoff

Thomas Herndon, Michael Ash and Robert Pollin*

We replicate Reinhart and Rogoff (2010A and 2010B) and find that selective exclusion of available data, coding errors and inappropriate weighting of summary statistics lead to serious miscalculations that inaccurately represent the relationship between public debt and GDP growth among 20 advanced economies. Over 1946–2009, countries with public debt/GDP ratios above 90% averaged 2.2% real annual GDP growth, not −0.1% as published. The published results for (i) median GDP growth rates for the 1946–2009 period and (ii) mean and median GDP growth figures over 1790–2009 are all distorted by similar methodological errors, although the magnitudes of the distortions are somewhat smaller than with the mean figures for 1946–2009. Contrary to Reinhart and Rogoff's broader contentions, both mean and median GDP growth when public debt levels exceed 90% of GDP are not dramatically different from when the public debt/GDP ratios are lower. The relationship between public debt and GDP growth varies significantly by period and country. Our overall evidence refutes RR's claim that public debt/GDP ratios above 90% consistently reduce a country's GDP growth.

Key words: Public debt, Austerity
JEL classifications: E60, E62, E65

1. Introduction

In 'Growth in Time of Debt', Reinhart and Rogoff (hereafter RR; 2010A for their working paper version and 2010B for their published paper) present a set of what they characterise as 'stylised facts' concerning the relationship between public debt and GDP growth. RR summarise the overarching results of these papers succinctly:

> . . . whereas the link between growth and debt seems relatively weak at 'normal' debt levels, median growth rates for countries with public debt over roughly 90 percent of GDP are about one percent lower than otherwise; average (mean) growth rates are several percent lower. (RR, 2010A, p. 573)

Manuscript received 9 October 2013; final version received 12 November 2013.
Address for correspondence: Robert Pollin, Department of Economics, University of Massachusetts Amherst, MA 01002, USA; email: pollin@econs.umass.edu
*Department of Economics (TH), Department of Economics and Center for Public Policy and Administration (MA) and Department of Economics and Political Economy Research Institute (RP), University of Massachusetts Amherst. We thank Arindrajit Dube, Stephen A. Marglin and four anonymous *CJE* referees for valuable comments. We also thank Carmen Reinhart and Kenneth Rogoff for sending us their working spreadsheet on 4 April 2013 and for their constructive responses to our initial HAP working paper (originally posted on 15 April 2013).

© The Author 2013. Published by Oxford University Press on behalf of the Cambridge Political Economy Society. All rights reserved.