Can re-regulation of the financial sector strike back public debt? ☆

Luca Agnello [a], Ricardo M. Sousa [b,c]

[a] University of Palermo, Department of Economics, Business and Statistics (SEAS), Viale delle Scienze, 90128 Palermo, Italy
[b] University of Minho, Department of Economics and Economic Policies Research Unit (NIPE), Campus of Gualtar, 4710-057 – Braga, Portugal
[c] London School of Economics and Political Science, LSE Alumni Association, Houghton Street, London WC2A 2AE, United Kingdom

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ABSTRACT

This paper analyses the impact of financial sector policy changes on the dynamics of public debt. Using a panel of 89 countries from 1973 to 2005, we find that, overall, while the implementation of financial liberalisation policies significantly raises the public debt growth rate, the adoption of financial re-regulation measures does not reduce it in a significant manner. Looking at the different typologies of financial sector policy changes, we show that restrictions to international capital flows contribute to a decline in the growth rate of public debt. In contrast, the removal of entry barriers boosts public debt growth. Finally, our results suggest that financial reversals may help to reduce the growth rate of public debt only when the public debt-to-GDP ratio or the inflation rate is high.

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1. Introduction

While public debt is not a new phenomenon for developing countries, fiscal deficits have been growing in a wide range of developed countries over the last 30 years.

More recently, the financial crisis of 2008–2009 forced many governments to adopt fiscal policy measures aimed at offsetting its damaging effects and at delivering an economic recovery from a very sharp collapse of the asset markets (Agnello et al., 2012). This has ultimately led to costly government restructuring of private sector's balance sheet, a significant increase in public debt, a steep rise in sovereign yield, and lower degree of business cycle synchronisation across countries, and had significant implications in a large number of social outcomes (Mallick and Mohsin, 2010). Reinhart and Rogoff (2011a, 2011b) show that domestic debt currently accounts for almost two thirds of total public debt.

With public debt reaching historically high record levels, debt restructuring appears to be unavoidable for some governments. Therefore, it seems reasonable to assume that debt reduction, debt management, and efforts to lower the debt servicing costs will be at the centre of the political agenda in the coming years.

As Fujita (2011) correctly points, the most recent international financial turmoil brought more state activism and market regulation. Reinhart (2012) also emphasises financial repression measures as one potential mechanism for the reduction of the debt-to-GDP ratios. Werner (2013) highlights the need to understand the role of banking systems as pre-condition for the design of optimal policy interventions.

Although these works theoretically discuss the intensification of regulation measures as one of the consequences of the Great Recession, as well as the various channels via which public debt can be reduced, the aim of the current paper is to empirically document the impact of financial re-regulation on the growth rate of public debt.

Against this background, we investigate, from an empirical point of view, the role played by financial sector policies, which can be seen as a subtle form of debt restructuring. More specifically, we assess whether financial re-regulation can be an important debt-reduction mechanism and helps to refrain the public debt growth.

Using a panel of 89 countries from 1973 to 2005, we find that a less strict financial sector policy boosts the growth of public debt. Moreover, while the implementation of (large) financial reforms significantly raises the public debt growth rate, the adoption of financial re-regulation measures (such as financial reversals) does not lead to a significant reduction of the growth rate of public debt.

Looking at the various typologies of financial sector policy changes, we show that the removal of entry barriers leads to a rise in the growth

rate of public debt. On the other hand, restrictions to international capital flows and large reversals in privatisations contribute to a decline of public debt growth.

Additionally, the empirical evidence reveals that (i) more open countries tend to have better financing conditions which lowers the interest payments on debt and reduces the growth rate of public debt, (ii) less stringent international financial regulation induces a faster growth of public debt, and (iii) the public debt growth rate displays a reasonable degree of persistence.

Controlling for the occurrence of crisis episodes, the results reveal that inflation crises and domestic and external debt crises are generally linked with a fall in the growth rate of public debt.

Moreover, we find that while the implementation of less restrictive financial sector policies typically raise the growth rate of public debt no matter what the debt-to-GDP ratio or the inflation rate is, financial re-regulation helps to significantly reduce it only when the debt-to-GDP ratio or the inflation rate is high. In this sense, financial backstops may allow countries to "buy time" (Padoan et al., 2012) and high inflation can be seen as a debt-reduction mechanism (Reinhart and Rogoff, 2009).

Conditioning the effects of changes in the financial sector policy on the GDP growth, the empirical results show that financial liberalisation increases the growth rate of public debt, especially when economic activity is slack.

Finally, when we focus on a sample consisting of developing countries, we show that the effects of financial liberalisation, financial reforms, and large financial reforms are stronger than those uncovered for the entire sample.

The remainder of the paper is organised as follows. Section two briefly reviews the existing literature. Section three describes the empirical methodology. Section four presents the data and discusses the empirical results. Section five provides the sensitivity analysis. Finally, section six concludes.

2. Review of the literature

In the past, the debt-to-GDP ratios have been reduced by 1) austerity plans and fiscal adjustments, 2) default or restructuring of private and/or public sector debt, 3) economic growth, 4) a large rise in inflation, and 5) a steady dosage of financial repression (Reinhart, 2012).

The term "financial repression" was originally brought to the economic literature by Shaw (1973) and McKinnon (1973) and later retaken by Easterly (1989) to describe the financial systems of emerging markets prior to the financial liberalisation process that started in the eighties.

Table 1
Description of the variables.

Variable	Label	Range values	Mean values	Std. dev.	Description/source
Debt-to-GDP			63.13	61.21	IMF (Abbas et al., 2010).
OECD countries			49.07	29.34	
Non-OECD countries			67.31	67.2	
1st quartile:		30			
2nd quartile:		51			
3rd quartile:		79			
Real GDP (growth rate)			0.032	0.38	World Development Indicators (WDI)
OECD			0.029	0.03	
NOT OECD			0.033	0.07	
1st quartile:		0.01			
2nd quartile:		0.04			
3rd quartile:		0.06			
Inflation			0.149	0.36	World Development Indicators (WDI)
OECD			0.105	0.182	
NOT OECD			0.160	0.392	
1st quartile:		0.03			
2nd quartile:		0.07			
3rd quartile:		0.14			
Real GDP (log)			21.71	4.21	World Development Indicators (WDI)
Openness			74.72	44.82	Penn World Table (PWT)
Real interest rate			6.29	21.03	World Development Indicators (WDI)
Credit ceilings	Cc	0–1	0.64	0.48	Aggregate credit ceilings
Directed credit	Dc	0–3	1.55	1.14	Directed credit/excessively high reserve requirements
Credit controls	Ccon	0–3	1.60	1.11	Credit controls, defined as 0.75*Directed credit + 0.75*Credit ceilings when credit ceilings is available, and as directed credit, otherwise.
Interest rate controls	Intcon	0–3	1.78	1.32	Interest rate controls
Entry barriers	Eb	0–3	1.78	1.18	Entry barriers in the banking sector/pro-competition measures
Banking supervision	Bs	0–3	0.78	0.96	Banking supervision
Privatisation	Priv	0–3	1.26	1.19	Degree of privatisation in the financial sector
International capital	Ic	0–3	1.67	1.13	Restrictions on international financial transactions and the use of multiple exchange rates
Security markets	Sm	0–3	1.49	1.13	Operational restrictions and the establishment of securities markets
Financial reform index		0–21	10.4	6.33	Financial reform index i.e. the sum of the seven components listed above
G7 financial regulation Index		0–21	16.0	3.73	Financial regulation index for the G-7
Financial reversal		0–1			Dummy = 1 if ΔFinancial reform index > −3 & ΔFinancial reform index < 0
Large financial reversal		0–1			Dummy = 1 if ΔFinancial reform index < = −3
Financial re-regulation		0–1			Financial reversals and large financial reversals
Financial reform		0–1			Dummy = 1 if ΔFinancial reform index > 0 & ΔFinancial reform index < = 2
Large financial reform		0–1			Dummy = 1 if ΔFinancial reform index > 2
Financial liberalisation		0–1			Financial reforms and large financial reforms

Notes: Along the various policy dimensions, each country is given a score, where 0 corresponds to full regulation, 1 denotes partial regulation, 2 is large liberalisation, and 3 corresponds to full liberalisation. Thus, the higher the value of the index is, the more liberalised the domestic financial sector will be. Policy changes denote shifts in the country's score. The index credit ceiling is coded as 0 if ceilings on expansion of bank credit are in place. This includes bank-specific credit ceilings imposed by the central bank. It is coded as 1 if no restrictions exist on the expansion of bank credit. The seven dimensions of financial liberalisation are aggregated to obtain a single financial reform index. Since each of the seven components can take values between 0 and 3, the aggregate index ranges between 0 and 21. Data for the financial sector index and its various sub-components are based on the works of Abiad and Mody (2005) and Abiad et al. (2008). The mean values are computed over the sample 1973–2005.