



Fiscal deficits, financial fragility, and the effectiveness of government policies[☆]



Markus Kirchner^a, Sweder van Wijnbergen^{b,c,*}

^a Central Bank of Chile, Chile

^b University of Amsterdam, Roetersstraat 11, 1018 WB Amsterdam, The Netherlands

^c Tinbergen Institute, The Netherlands

ARTICLE INFO

Article history:

Received 2 August 2012

Received in revised form

23 April 2016

Accepted 25 April 2016

Available online 6 May 2016

Keywords:

Financial intermediation

Fiscal policy

Sovereign debt

ABSTRACT

Recent developments in the euro area highlighted the interactions between fiscal policy, sovereign debt and financial fragility. We introduce asset choice and sovereign debt holdings in banks' portfolios in an otherwise standard macroeconomic model with financial frictions, to emphasize a new crowding-out mechanism through reduced private access to credit when leverage-constrained banks accumulate sovereign debt. When banks are substantially invested in sovereign debt, the effectiveness of fiscal stimuli is impaired because deficit-financed fiscal expansions through this channel crowd out private demand. This channel also significantly reduces the gains from fiscal policy when interest rates are at the Zero Lower Bound.

© 2016 Elsevier B.V. All rights reserved.

1. Introduction

Recent macro-developments in the euro area have highlighted the interactions of fiscal policy, sovereign debt, and financial fragility. Financial fragility and spiralling sovereign debt were inherited from the global credit crisis that preceded the more recent turmoil in the euro area. Across much of Europe and in the U.S., the fiscal response to the crisis took the form of financial sector support measures and economic stimulus packages that were financed through budgetary deficits. What are the effects of such policies in a situation of financial distress such as emerged after the 2007/2008 credit crisis? Standard macroeconomic models are not set up for policy analysis during crises characterized by financial distress, but new types of models have been developed recently that can be (and have been) used to answer this question; see, in particular, [Gertler and Karadi \(2011\)](#), [Gertler and Kiyotaki \(2010\)](#), and [Gertler et al. \(2012\)](#). However, those models assume that government policies are fully funded through markets that are not affected by financial distress and in turn have no direct impact on the financial fragility that the distress situation has led to. For many, if not most countries, this is not a realistic assumption. This paper shows that relaxing that assumption qualitatively changes the assessment of the effectiveness of deficit-financed government policies as a tool to fight recessions caused by financial distress, and underscores the importance of bank intervention policies to relieve financial distress.

We develop a structural macroeconomic model that integrates government deficit financing and financial intermediation with frictions in the intermediation process. These frictions imply a financial accelerator that is able to generate a deep

[☆] The views expressed in this paper do not necessarily reflect the position of the Central Bank of Chile or its Board members.

* Corresponding author at: University of Amsterdam, Roetersstraat 11, 1018 WB Amsterdam, The Netherlands. Tel.: +31 20 525 4206/52.

E-mail address: s.j.g.vanwijnbergen@uva.nl (S.v. Wijnbergen).

financial crisis following a deterioration of intermediary balance sheets. Furthermore, we incorporate one of the more contentious points of the recent euro area crisis, the potential consequences of substantial holdings of sovereign debt by commercial banks for private access to bank credit. The model is used to study the effects of deficit-financed fiscal stimulus policies during such a crisis and also analyze the macroeconomic impact of policies designed to reduce financial distress through direct intervention in commercial bank balance sheets.

Our framework includes financial intermediaries that channel funds or deposits from households (the saving agents) to non-financial firms and the government (the borrowing agents). The intermediation process is subject to an agency problem between depositors and intermediaries, like in [Gertler and Karadi \(2011\)](#) and [Gertler and Kiyotaki \(2010\)](#). As those studies show, this agency problem leads to endogenous leverage constraints, which in turn gives rise to a powerful financial accelerator mechanism. This accelerator mechanism generates dynamics that broadly reflect the relevant economic dynamics of a financial crisis. However, unlike the models in those studies, our framework allows for different classes of assets in intermediary portfolios instead of only one class, introducing a new crowding-out channel that works through reduced private access to credit when banks accumulate sovereign debt under a leverage constraint.

The specific setup is as follows. There are two types of financial intermediaries, banks and Money Management Funds (MMFs). The asset portfolio of banks consists of government bonds and loans made to non-financial firms. The overall portfolio size of banks is tied to their equity capital through endogenous leverage constraints, but the banks optimize their portfolio composition for any given portfolio size, shifting the composition of their portfolios towards assets with higher expected returns. Through this mechanism, the expected returns on bonds and private claims are jointly determined in equilibrium. Financial frictions and leverage constraints prevent perfect arbitrage, although intermediaries will alter their portfolio composition to exploit rate of return differences. In general equilibrium, such arbitrage behavior by banks leads to co-movements between different credit spreads relative to the rates at which the intermediaries obtain funding.

MMFs do not engage in risky lending, they solely invest in government bonds which can be used as collateral. Therefore, MMFs are not subject to leverage constraints. The government decides on which share of its stock of debt is placed at banks and which share at MMFs. Placement at MMFs is equivalent to direct holdings by consumers as MMFs are modeled as zero-cost/zero-profit institutions.

We use this model to highlight the links between government policies and deficit financing in a situation of financial distress, analyzing in particular the effects of demand (i.e. spending) stimulus and measures targeting the financial sector (i.e. transfers to intermediaries). This set of policies is sufficient to explain the key implications of the model, but it also suitably captures the main fiscal and bank intervention policy measures that were applied in the wake of the global credit crisis. The policies are financed by issuing bonds to intermediaries. We analyze as a benchmark the case where governments can bypass financial frictions altogether by financing policies exclusively through MMFs and explore the consequences of governments having to finance an increasing share of debt through institutions subject to financial frictions. Key to our results are the effects of government borrowing on intermediary balance sheet constraints and the associated adverse impacts on the cost of credit to non-financial firms. In our model, a fiscal expansion is associated with an economy-wide increase in credit spreads for the private sector, as higher government deficits tighten intermediary balance sheet constraints. The rise in spreads lowers non-financial sector investment, which can (in some cases more than) offset the output gain of a demand stimulus. The fact that intermediary balance sheet constraints are forward-looking explains the sometimes perverse links between the timing and the effects of government policies that we detect.

Our findings suggest that intermediary financing under leverage constraints has important consequences for the effectiveness of government policies. An early, immediately implemented demand stimulus dampens a recession due to a financial crisis for some time (i.e. it reduces output losses initially), but the dampening impact is much smaller than without the leverage constraints and the associated crowding out through bank portfolio's. And the stimulus tends to prolong the downturn later on as within-period multipliers turn negative already after a few periods. An even more striking result is that a pre-announced future stimulus starts out by worsening the recession: in the year leading up to the actual implementation of the stimulus, within-period multipliers are actually negative. Since in the vast majority of countries budget procedures imply time to implementation, with delays of at least a year if not more typical, this is a highly relevant result. We also find that the crowding-out effects of deficit-financed fiscal expansions significantly limit the gains from fiscal policy when monetary policy is restricted by the Zero Lower Bound. Overall, these findings raise questions about the effectiveness of deficit-financed government policies in situations of financial distress and limited direct capital market access by governments.

This paper is part of a recent literature documenting the large holdings of sovereign bonds by banks ([Gennaioli et al., 2014a](#); [van der Kwaak and van Wijnbergen, 2014](#)) and studying their implications for whether sovereign default happens and what are its consequences ([Balloch, 2016](#); [Broner et al., 2014](#); [Gennaioli et al., 2014b](#)). We also highlight the importance of the links between financial fragility and bank holdings of sovereign debt, but our focus is different, on their impact on the size of the fiscal multiplier. This paper is also closely related to other studies of the credit crisis (e.g., [Christiano and Ikeda, 2013](#); [Gertler and Karadi, 2011](#); [Gertler and Kiyotaki, 2010](#); [Gertler et al., 2012](#)); but in these studies, government policies are financed directly by households without any financial frictions. However, many financial institutions are active in government funding markets. For instance, in the euro area, government securities and direct loans to the government equal to

Download English Version:

<https://daneshyari.com/en/article/967547>

Download Persian Version:

<https://daneshyari.com/article/967547>

[Daneshyari.com](https://daneshyari.com)