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Public debt and financial development ☆

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Abstract

We examine the role of public debt in financial development. The literature has highlighted its supportive role through providing collateral and benchmark. We contrast this "safe asset" view to a "lazy banks" view: developing banking sectors that lend mainly to the public sector may develop more slowly, because it could make banks profitable but inefficient. Results from country-level and bank-level regressions are more supportive of the "lazy banks" view, but the "safe asset" view seems to play a role at moderate levels of public debt held by banks. There is also evidence of a harmful interaction between public debt and financial repression.

JEL classification: G21; H6
Keywords: Public debt; Financial development; Bank efficiency; Bank profitability

1. Introduction

A large literature has examined the institutional determinants of financial development (e.g., Claessens and Laeven, 2003; Detragiache et al., 2005) and the relationship between financial development and economic growth (e.g., Christopoulos and Tsionas, 2004; King and Levine, 1993; Levine, 1997; Rajan and Zingales, 1998). However, less work has been done on the macroeconomic determinants of financial development: what has been shown is that financial development is undermined by inflation (Boyd et al., 2001) and that financial openness can support financial development if the appropriate institutional requirements are in place (Chinn and Ito, 2006).[1]

This paper examines the effects of public debt on financial development, an aspect that, while frequently discussed in policy circles, has received scant attention in the academic literature. Most often, the role of public debt in financial development has been thought of in terms of a positive role it can play in developing financial sectors by providing a relatively safe asset; we will call this the "safe asset" view. In contrast, and as the main contribution of this paper to the literature, we propose what we will call a "lazy banks" view: developing banking sectors holding large public debt may progress more slowly, because banks that mainly lend to the public sector could become too complacent to have the drive to develop the banking market under the difficult conditions in developing countries. Note that "lazy" does not imply a value judgment here, as it reflects rational behavior on the part of the banks. While often quoted in policy circles, this view has been absent from the academic literature.[2] Note that there could also be room for non-linearities and interactions: public debt may be helpful for financial development up to a threshold, beyond which it may become harmful. Moreover, whether public debt exerts a

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[1] The literature has also dealt with indirect effects of fiscal policy on financial development: financial repression and inflation, two main foes of financial development, have been shown to be rooted in fiscal problems (Bencivenga and Smith, 1992; Roubini and Sala-i-Martin, 1992; Catão and Terrones, 2005).

[2] See, for example, the Economist's (9/11/04) article "Adieu, paresse?—'Lazy' banking turns out to be riskier than it looks" on the Indian banking sector that illustrates a classic example of the "lazy banks" view. Farrell et al. (2006) is another example. Fry (1995) mentions only in passing "the easy path of lending to finance large government deficits." Manove et al. (2001) use the term "lazy banks," but in a different context. Some stylized facts have been established by Hauner (2008), but without a theoretical framework on the effects of public debt on financial development, and using different samples and regression specifications and techniques than here.

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negative effect on financial development may depend on whether the financial system is liberalized or remains repressed.

The consequences of large public sector borrowing from the domestic banking sector are also a timely policy issue, given the ongoing debate on optimal debt structures (e.g., Borensztein et al., 2004; Eichengreen and Hausmann, 2005; Reinhart et al., 2003). Many developing country governments have reduced their external indebtedness over recent years and increasingly rely on domestic financing. While this reduces macroeconomic risks, the rapid rise in the share of domestic credit absorbed by the public sector in many developing countries raises questions about the consequences for the development of the financial sector.

We examine the validity of the two contrasting views of the role of public debt in financial development based on bank-level and country-level data for 73 middle-income countries.[3] As most of the related literature, we focus on the banking sector: banks account for the overwhelming part of financial assets in developing countries, and for most of these countries, data on the non-bank financial sector is insufficient for an intertemporal analysis. Our independent variable of interest is public debt held by the domestic commercial banking sector, which we will refer to as "public sector credit." Our main dependent variables are indicators of financial development, which we define as the degree to which the banking sector performs its functions that contribute to economic growth: the theoretical literature identifies mobilization of savings; efficient allocation of resources; transfer of risk; and facilitation of trade. We measure this degree by three commonly used indicators, in each case relative to GDP: liquid liabilities of the banking sector; total bank credit; and bank credit to the private sector. The third indicator is the most important one, as it has been shown to bear the closest relationship to economic growth (Levine et al., 2000).

Our results are overall more favorable to the "lazy banks" view. Greater public debt holding by domestic banks raises their profitability but reduces their efficiency and diminishes financial deepening over time. However, there is evidence of non-linearity as we find some support for the "safe asset" view for limited shares of public sector credit, where financial development seems to be supported by public debt. Moreover, there is—albeit ambiguous—evidence that public debt holding by banks only has a negative effect when it interacts with financial repression.

In the remainder of the paper, Section 2 examines how important public sector credit is in middle-income countries. Section 3 discusses the two opposing views of its potential effects on financial development, and Sections 4 and 5 examine the validity of these views in bank-level and country-level regressions, respectively. Section 6 concludes.

2. How important is public sector credit?

It is not straightforward what indicator of public sector financing is most appropriate for measuring its potential impact on financial development. In fact, most previous studies of the determinants of financial development did not include a measure of public sector financing, and those that did found insignificant results (e.g., Boyd et al., 2001). However, the variables used bear only a distant relationship to the public sector's borrowing from the domestic commercial banking sector: some studies used the overall deficit of the public sector that also includes central bank financing, domestic non-bank financing, and external financing; others used government expenditures whose relationship to domestic bank financing is, in addition to the aforementioned items, further obscured by government revenues and grants. Indeed, the one study we are aware of that finds a significant effect of a fiscal variable on financial development (Detragiache et al., 2005) uses interest expenditure, which can be regarded as approximately proportional to public debt. Moreover, most studies have used central government figures, although there are often large fiscal activities outside the central government, particularly by local governments and public sector enterprises.

Here, we use two indicators that jointly closely capture the importance of banks' holdings of debt of the entire public sector, namely the share of credit to the general government[4] (PUBLIC) and to non-financial public enterprises (NFPE) in the total credit extended by the commercial banking system. We refer to these variables jointly as public sector credit and compile them from the IMF International Financial Statistics. As for all the variables used in this paper, definitions, sources, and descriptive statistics are summarized in the Appendix. We introduce the other variables as they come up in the analysis.

A first look at the data indicates that the public sector absorbs a substantial and rising share of credit in many developing countries. The country list in Table 1 shows that its share amounts to more than 20% of total bank credit in more than half of our 73 countries, and more than 50% in 13 of them. Moreover, a marked decline in external indebtedness has been accompanied by a rapidly rising share of public sector credit (Fig. 1). While it remains much smaller than external debt, it has been trending upwards since the beginning of the 1990s. However, combined with crises-induced shrinkages of some banking sectors, this has contributed to a dramatic rise in the average ratio of public sector credit to total credit since the mid-1990s, from 18% to more than 27%. There appears to be a broad trend to replace external with domestic borrowing: of the countries that reduced their external debt ratio from 1990 to 2003, about four-fifths increased their ratio of public sector credit to GDP; while this could also be due to financial deepening, about two-thirds of the countries also increased their ratio of public sector credit to total bank credit.

What are the typical characteristics of countries with high public sector credit? Simple correlations and univariate regressions[5] suggest that it is unrelated to income levels, but is significantly negatively related to growth. Countries with higher public sector credit also tend to have higher external

[3] Middle-income is defined broadly and includes several countries usually included in the low-income category. However, we do not include the poorest countries, because banking is at a very nascent stage in many of them.

[4] General government usually includes all levels of government and extrabudgetary funds, but not central banks.

[5] Not shown here to save space; available from author on request.