Policy brief
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Market Institutions, Government Agency and Capital Flows

In brief

- This research addresses the question of why governments repay their debts. Previous research has focused on the reaction of foreigners as the reason for repayment, in the form of direct sanctions or loss of international reputation.
- This research highlights an additional consequence that incentivizes governments not to default: domestic financial turmoil. The authors explore the link between sovereign defaults and the domestic financial system and test three predictions:
    - Public defaults are followed by large contractions in private credit.
    - These contracts are stronger in countries where banks hold more public debt and financial institutions are stronger.
    - These countries are less likely to default.
- The results of this study suggest that the presence of developed financial markets in a country plays a key role in the sustainability of the government's debt. This implies that countries may become 'serial defaulters' due to underlying weaknesses in their financial institutions, and that the ability of a gvoernment to borrow in order to sustain a bank during a crisis could be heavily dependent on the quality of the banking sector.
- **Key policy implications:**
    - The development of domestic financial markets is crucical for the sustainability of public debt.
    - Financial liberalization has a key effect on the sustainability of public debt.
    - Controls on capital outflows might be desirable.
    - Governments attempting to bailout the financial system should proceed with caution. The design and implementation of bailouts should seek to minimize the distortion of incentives in order to avoid the problems of moral hazard.

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Policy Motivation

"From the Russian default of 1998 to the recent European debt crisis, the occurrence or the risk of public default threatens the solvency of domestic banks"

What prompts governments to repay their debts to foreigners? Answering this question is crucial for understanding the sustainability of public debt, and for designing policies to enhance it. In the past, economists have stressed the negative reaction of foreigners as a reason for repayment, either in the form of direct sanctions against defaulting countries or a loss of reputation of these countries in international markets. Our research is intended to highlight an additional consequence of sovereign defaults: domestic financial turmoil. This consequence has been mostly overlooked in the literature but it has played an important role in the last few decades. From the Russian default of 1998 to the recent European debt crisis, the occurrence or the risk of public default threatens the solvency of domestic banks, which often heavily invest in public bonds.

These considerations suggest that governments may choose to repay their debts precisely to protect their banking sector. In this project, we explore this hypothesis by studying the link between sovereign defaults and the domestic financial system both theoretically and empirically. We build a model where government default hurts the balance sheet of domestic banks and verify in the data the model's three main predictions:

- Public defaults are followed by large contractions in private credit
- These contractions are stronger in countries where banks hold more public debt and financial institutions are stronger
- In these same countries default is less likely.

Policy Impact

"Our research thus underscores the desirability of financial reform to ensure more effective financial integration"

Our results indicate that the presence of developed financial markets in an economy plays a crucial role in the sustainability of its government's debt. This perspective suggests that:

- Countries may become "serial defaulters" due to the underlying weakness of their financial institutions
- The ability of a government to borrow in order to sustain domestic banks during a crisis, something we have witnessed in various countries during the past few years, could be heavily dependent on the quality of the banking sector itself.

Our research thus underscores the desirability of financial reform to ensure more effective financial integration.

Audience

We believe that all economists involved in the design of macroeconomic policy constitute an appropriate audience for our paper. This includes economists at international financial institutions such as the IMF or the World Bank, at central banks and financial regulatory agencies and at finance ministries. As the recent

European debt crisis shows, our research is not just of interest to economists working on the design of policy in developing countries.

Implications

The development of domestic financial markets is crucial for the sustainability of public debt

"The strengthening of creditor rights, the growth of bank-intermediated credit and the development of domestic markets for public bonds all tend to enhance the sustainability of public debt"

Our research suggests that developed financial markets increase the cost of public default because they raise the amount of public debt in the hands of domestic residents and, perhaps more importantly, they also amplify the adverse impact of default on banks. Thus, the strengthening of creditor rights, the growth of bank-intermediated credit and the development of domestic markets for public bonds all tend to enhance the sustainability of public debt. This implies that governments worried about debt sustainability might be well-advised to focus not just on austerity measures designed to alter the evolution of total debt but also on the development of private financial markets to increase the expectation of repayment of market participants.

Financial liberalization has a key effect on the sustainability of public debt

Our research also implies that financial liberalization is a double edged sword. Insofar as it attracts foreign capital flows and expands domestic financial markets, it enhances debt sustainability. If however liberalization leads to the outflow of private capital, it will undermine public debt sustainability, causing a distinctive source of financial fragility.

Controls on capital outflows might be desirable

The previous point then implies that capital controls may be welfare improving in countries experiencing outflows of private capital. The externality at the heart of this result is that atomistic investors in the domestic banking and financial sectors do not internalize that, by sending their capital abroad, they undermines the sustainability of public debt and enhance the country's overall financial fragility.

Governments attempting to bailout the financial system should proceed with caution

One striking fact of the recent financial crisis is that, as the financial system of many developed economies seemed to collapse, the governments of these same economies were able to issue new debt that was itself used to support private markets. This contrasts sharply with the experience of emerging markets in the 90s, when the perception of enhanced risk in private markets went hand-in-hand with a limited access of governments to credit markets. Our research suggests that one key factor underlying this difference is precisely the differential quality of financial institutions in these countries. Consequently, even developed country governments intervening to bail out their private sectors should be weary of the risk that increased public indebtedness may engender if financial institutions are not sufficiently strong: a twin crisis involving both the public and the private financial sectors.

Summary of Research

"If...liberalization leads to the outflow of private capital, it will undermine public debt sustainability, causing a distinctive source of financial fragility.

To study the connection between private financial markets and public debt sustainability we build a model where banks demand public bonds as a store of liquidity. In this model, the government's default decision involves a tradeoff. On the one hand, a default beneficially increases domestic wealth because some bonds are held by foreigners. On the other hand, since banks hold some public bonds, a default hurts their balance sheets and hinders intermediation, investment and output. In this setup, financial development increases the government's cost of default by boosting the leverage of banks. In fact, although higher leverage allows banks to finance a higher level of real investment, it also amplifies the negative impact of an adverse shock to their balance sheets. As a result, the model predicts that government defaults should be more disruptive to credit and output, and thus more costly, in more financially developed markets where banks are more leveraged. If financial markets are sufficiently developed, the cost of default is so large that the government can commit to repay its debt.

We test these predictions by building a large panel of emerging and developed countries over the years from 1980 to 2005. We measure financial development by using the "creditor rights" score of La Porta et al. (1998). We first document that public defaults are followed by large and systematic drops of aggregate financial activity in the defaulting country. We also find strong and robust evidence supporting the subtler predictions of our model: the post-default credit crunch is stronger in countries that are financially more developed and where banks hold more public debt. We also document that in these same countries the probability of public default is lower. These effects are economically large. We find that in the year following a sovereign default, private credit falls by 2.4 points as a fraction of GDP and by 8.6 percent in absolute terms. A one-point increase in the creditor rights score of a defaulting country (e.g. a move from a score of one as in Argentina, to a score of two as in Chile) is associated with a larger contraction of private credit by 5.7% in absolute terms, which amounts to 1.7 percent of GDP. Finally, every one-standard-deviation increase in the bond holdings of banks in a defaulting country is associated with a more severe contraction of private credit, which falls by an additional 69% of a standard deviation. Similarly, a one-point improvement in creditor rights is associated with a 3.5% reduced likelihood of a sovereign default.

"The post-default credit crunch is stronger in countries that are financially more developed and where banks hold more public debt"

Implementation

The policy implications of our research have no relevant implementation issues beyond the obvious ones. Among these, perhaps the two most relevant ones are that:

1. Capital controls should be properly designed and they are hard to enforce in practice
2. The design and implementation of bank bailouts should seek to minimize the distortion of incentives in order to avoid problems of moral hazard.

Further Readings

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