

A Non-technical Summary

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Many emerging markets use pre-emptive capital flow management (CFM) policies to handle the influx of capital inflows. The IMF expands the toolkit available to policymakers by allowing the pre-emptive use of such CFM policies in 2022. While current research and policies primarily focus on net or gross inflows, a growing debate highlights the need to consider both inflows and outflows to understand financial vulnerabilities better and directs policymakers to address two-way capital flows. Thus, this paper analyzes the justification for two-way capital flow management and its welfare implications for emerging markets.

In my quantitative analysis, I find that, relative to the decentralized equilibrium of the economy, a constrained social planner wants to shrink the economy's balance sheet rather than accumulate short-term assets to hedge the possible loss of market access to long-term borrowing when foreign lenders are constrained. I derive this finding in a small open endowment economy that borrows long-term from foreign financiers who are occasionally constrained and save in short-term liquid assets. In addition to the resource constraints and the behavior of the foreign financiers, the social planner is restricted to intervening only in good times to focus on prudential policies, as in the current policy debate on pre-emptive CFMs. Hence, I call such planner prudential.

The difference between the decentralized and planned allocation of this economy is driven by the fact that the planner internalizes the consequence of the chosen allocation on the market price of long-term debt, while the representative household inhabiting the emerging economy does not because it is atomistic. Strictly speaking, the social planner allocation differs from the decentralized equilibrium allocation because of the planner's

market power and a pecuniary externality. However, things here are complicated by the presence of long-term debt. Therefore, in this paper draft, I simplify the exposition by lumping the two inefficiencies together and referring to this simply as “pricing power.”

This model framework is a laboratory for evaluating two-way capital flow management policies. One central finding of the paper is that the constrained efficient allocation that shapes the prescription for government intervention in this model economy depends on the stock of long-term debt issued in previous periods, called inherited debt in the paper, in a way that cannot be pinned down analytically. Therefore, I investigated the issue numerically in a calibrated version of his model.

However, I also provide intuitions about this main feature of the economy in a tractable version of the model with log utility and a simplified configuration of foreign financiers’ constraints. In this tractable setting, I argue that the planner cannot simultaneously increase today’s bond price and decrease tomorrow’s possible fire sale price under the constrained financial condition; that is, the planner cannot simultaneously increase the long-term bond price when she is issuing new long-term debt and lower it when she is possibly repurchasing it in bad times. As a result, the planner faces a trade-off, and the optimal decision depends on the inherited debt level. This is because today’s long-term debt choice always includes inherited debt rolling over into the next period and newly issued debt. The planner is only a buyer in future possibly constrained periods of this inherited debt. In contrast, for the newly issued debt, the social planner is both a seller in the current unconstrained period and a possible buyer in the future possibly constrained periods.

For the newly issued debt, the social planner would prefer a higher bond price in the current unconstrained period, as a higher redemption price implies a lower risk premium and improves the economy’s welfare. The planner would prefer a lower redemption bond price for the inherited debt, ex-ante. The inherited long-term debt level thus plays an essential role in determining which direction the social planner should adjust the current issuance and redemption prices relative to households in the decentralized economy. As a result, the analysis reveals that the optimal capital flow management policy hinges

critically on the economy's stock of inherited debt.

I then move on to the quantitative analysis of this issue in a version of its economy calibrated to Brazil. The model matches Brazilian data well, generating sharp reversals in bond prices and gross capital flows during global financial tightening episodes consistent with emerging markets' experiences of sudden stops and retrenchments (Forbes and Warnock 2012).

In the quantitative analysis of the full model, I find that the social planner optimally shrinks, rather than expands, the size of the external balance sheet by reducing both inflows and outflows relative to the decentralized equilibrium. This result contrasts with the findings in similar setups, such as Jeanne and Sandri (2023) and Caballero and Simsek (2020), where zero inherited long-term debt stocks are explicitly assumed, and the social planner's optimal choice is balance sheet expansion.

The paper also examines capital flow taxes on long-term bonds and short-term assets that can implement the social planner's allocation. When inherited debt is low, long-term bond issuance should face taxes, while short-term bond accumulation should be subsidized, inducing the country's balance sheet to expand relative to the decentralized economy. In contrast, the opposite becomes optimal with more outstanding indebtedness, inducing the country's balance sheet to shrink. The paper, therefore, stresses the need to condition actual policy advice on the management of gross capital flows on the level and the composition of a country net foreign asset position, cautioning against one-size-fits-all policy advice.