

Optimal Debt Management

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A key policy issue is the choice of government debt portfolio. Data on portfolio holdings of debt at different maturities across countries points to some regularities: countries often hold a U-shaped portfolio composition with most of the assets concentrated on some long and some short maturities, debt is concentrated in a few maturities, and debt holdings are positive at almost all maturities, governments rarely hold privately issued assets. Yet few research papers have analyzed whether this is an optimal arrangement, how it could be improved upon or under what circumstances this is indeed an optimal choice.

This issue can be addressed using recent developments on the study of optimal policy under incomplete market, for example, using the framework of Aiyagari et al. (2002) JPE (AMSS). Yet, this problem presents its own complications.

We approach this issue in a series of joint projects with E. Faraglia and A. Scott, this talk is a summary of these projects. We focus on models of optimal policy with full information and full commitment.

We first argue that optimal debt management cannot be approached as a special case of complete markets and that specific issues of market incompleteness need to be introduced in the model to build a useful theory of debt management. In a second project we study the basic features of a model with uncertainty in only one period, this allows us to highlight the pitfalls of finding numerical solutions for the problem of optimal debt management and to build some intuition about the model behavior. In a third project we gain intuition on the role of long bonds by solving for the optimal policy when there is only one bond of a long maturity. In a fourth project we study the optimal debt management policy when government can issue several bonds at different maturities and the government faces several kinds of transaction costs.