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Sovereign Bond Auctions in the Euro Area

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Summary Sovereign Bond Auctions in the Euro Area by Jesper Hanson

This dissertation studies sovereign bond auctions in the euro area. Euro area governments use sovereign bond auctions to refinance the outstanding stock of debt and to finance budget deficits. During the recent financial and sovereign debt crisis, high sovereign yields and high budget deficits resulted in a challenging funding environment for governments. Auction outcomes were closely scrutinized, and the success or failure of auctions could be market moving events. It is therefore important to study the determinants of successful sovereign bond auctions and their domestic and cross-border effects.

In Chapter 2 we study cross-border spillovers of sovereign bond auctions. Participation to sovereign bond auctions is limited to a selected group of financial institutions. These primary dealers take large volumes of sovereign debt on their books around auctions. We develop a model where primary dealers have limited risk-bearing capacity and want to be compensated for the concentration of bonds on their books. This results in a peak in sovereign bond yields around auctions. This auction cycle is larger when markets are volatile. When primary dealers are active across borders and foreign bonds are regarded as close substitutes to domestic bonds, domestic auctions cause an auction cycle in foreign yields. Consistent with the model, we find evidence for domestic and cross-border auction cycles. Domestic cycles are stronger in the crisis period, while cross-border cycles are stronger in the pre-crisis period, which is likely the result of retrenching financial integration during the crisis. The finding of cross-border auction cycles suggest that it is costly if governments hold auctions at the same date.

Chapter 3 analyzes the effects of the success or failure of an auction. We measure the success of an auction with the bid-to-cover ratio. This is a measure of the total amount of bids placed during the auction, divided by the issuance volume. A high volume of bids relative to supply indicates a successful auction. We find that a successful auction results in a reduction in secondary market yields following the auction. This effect is stronger in a volatile market environment. These results are in line with a model where primary dealers receive signals about the value of the auctioned bond. Such signals may for example come from investors who place orders with primary dealers prior to the auction. This finding suggests that it could be costly if governments set ambitious funding targets when markets are volatile, because the costs associated with a failed auction are relatively high.

Chapter 4 focuses on the debt management strategy of euro area governments. We explore the drivers of the maturity of newly issued debt. We develop a model where investors have a preference for short-term debt, due to price risk of long-term debt and their preference for liquid debt. The government faces a trade-off between lower funding costs for issuance of short-term debt, and lower roll-over risk for long-term debt. We find that the average maturity of newly issued debt is negatively related the spread between long- and short-term yields and to the level of yields. Our analysis of drivers of the maturity choice of governments suggests a role for liquidity preference of investors.

In Chapter 5 we study the determinants of the success of sovereign bond auctions, as measured by the bid-to-cover ratio. We find that an environment of high secondary market yields and low secondary market volatility is associated with more successful auctions. We provide some evidence of flight-to-safety effects during the crisis. We also show a positive relationship between the outcome of the current auction and the success of the previous domestic auction, and we find positive spillovers from the success of foreign auctions to domestic auctions

Taken together, the results in this dissertation suggest an interplay between sovereign debt auctions and domestic and foreign secondary market yields. This interplay depends on the success of the auctions, the level of secondary market yields and on market volatility. The analysis and results in this dissertation suggest a number of avenues for further research. First, the spillovers around sovereign debt auctions could be explored further, for example by investigating spillovers from U.S. Treasury auctions on sovereign bond yields in the Eurozone. Second, the interaction between monetary policy and sovereign bond auctions deserves further attention. A relevant question is the relation between ECB purchases of sovereign bonds and the maturity of newly issued debt. Another question is the effect of these purchases on the size of the auction cycle.