Coordinating Policies: The Central Bank and the DMO

Monetary policy and fiscal operations

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Introduction

• This talk focuses on three aspects of the central bank’s role in sovereign debt management:
  – as the manager of government debt;
  – as an issuer of debt; and
  – as the promoter of debt markets.

• In each of these, the central bank will find itself in the same realm as the debt management office.
THE DOMESTIC BOND MARKET
Sovereign debt is vital to development of a credit market.

• Because of its relatively lower risk, such debt serves two major roles:
  – The yield on sovereign debt serves as the baseline from which all other debt instruments in the same market can be priced by adding appropriate risk, liquidity and term premia to the underlying pure interest rate.
  – High-quality securities serve as good collateral to secure financial transactions.

• The debt may be issued by either the central bank or the central government.
A functioning credit market facilitates the issuance of sovereign debt.

- A well-developed domestic bond market helps the government to finance its fiscal deficit in a non-inflationary way. Within limits,
  - long-term debt can be sold regularly and in moderately varying amounts as needed to finance operations
  - short-term debt can be sold cheaply to maintain cash balances.
Central banks have an interest in how the government uses bond markets.

• The distinction between fiscal, i.e., debt, management and monetary policy fades in actual government fiscal operations.
  – Government decisions about the currency, denomination, and the maturity of sovereign debt issues have a major impact on the development of local currency debt markets.
  – Debt issuance by the government can constrain the options and outcomes of monetary policy.
  – Debt issued by the central bank for monetary policy purposes can impact the market for government debt.
Central bank policy may complement, or interfere with, sovereign debt management.

• Whether the central bank issues its own debt or manages the government’s debt, there are potential sources of conflict.
  – Central banks are assigned the goal of macroeconomic stabilization (i.e. price stability). In acting to promote stability in the market, it can make use of its own balance sheet. This can be particularly important in emerging economies where markets are often undeveloped and, consequently, thin and unstable.
  – The public debt managers are typically mandated to keep governments’ funding costs to the minimum.

• It can advise the government on the strength and capacity of local debt markets to ensure a receptive market for government debt. The central bank is a natural choice for this task because of its links to the financial sector.
THE CENTRAL BANK AS MANAGER OF GOVERNMENT DEBT
The central bank as manager of government debt

• The smooth operation of debt markets is critical to monetary policy.
• The central bank is often the fiscal agent and helps to ensure that markets function effectively. As agent, the central bank acts on the instructions of the principal and, accordingly, it should have no independent authority over sovereign debt management.
• By contrast, when central banks act as debt managers, they are more directly involved in the decisions regarding the cost and the maturity structure of government debt.
Debt management and monetary policy

• Sovereign debt management deals primarily with fiscal policy actions, but it has implications for monetary policy. Let, at time $t$,
  
  – $D_t = \text{budget deficit}$
  – $B_t = \text{stock of government bonds}$
  – $TB_t = \text{stock of treasury bills}$
  – $M_t = \text{base money}$

• Then,

$$D_t = [B_t - B_{t-1}] + [TB_t - TB_{t-1}] + [M_t - M_{t-1}]$$
Implications of the budget constraint

• The deficit may be covered by printing money or issuing bills or bonds.
• The use of long-term government bonds is generally the domain of debt management.
• But decisions about treasury bill issuance are part of debt management and part of monetary policy. The shorter the maturity of treasury bills, the closer they are to “money”.

• The structure of public debt (e.g., maturity, currency of denomination) and its holders (e.g., banks, institutional investors, non-residents) will affect the transmission mechanism of monetary policy.
Debt and the yield curve

• One implication of the maturity structure of debt is that it has a significant effect on the term premium, and hence the shape and the slope of the yield curve.

• Excess demand for long-term securities (relative to supply) can reduce term premia, leading to a flatter yield curve; conversely, an excess supply may increase term premia, steepening the yield curve.

• Thus monetary conditions – hence aggregated demand – can change, without changes in the policy rate.
Debt maturity can affect bank credit

• It is assumed that bank credit is determined primarily by market forces.
• Issuance of bills or bank reserves should play little role in the determination of credit
• Under imperfect market conditions, however, debt maturity can affect banks’ lending behavior.
  – Banks may face financing constraints. Short-term government and central bank bills could then act as liquidity buffers (bank reserves in waiting), relaxing these constraints and enhancing banks’ capacity to lend.
  – Liquid assets provide an easy way for investors to leverage up their balance sheets. Banks and other investors may use their bond holdings to build riskier exposures.
Coordination of debt management and monetary policy is essential

• One aspect of this coordination relates to the portfolio of public debt - it must be sustainable.
  – The timing and size of debt and scheduled repayments must not overwhelm the public budget.
  – For this reason, debt managers are expected to prepare a medium-term debt management strategy with explicit assessments of economic stresses likely to impact the cost or subsequent marketability of the debt portfolio.

• By sharing its assessment about probable exogenous factors and endogenous developments as well as the associated risks, the central bank can help the central government develop a debt strategy.
Sharing expertise in market capacities

• A country with too concentrated a debt profile may find itself at the mercy of strong market pressures when debt is to be renewed.

• Through its ties to the local markets, the central bank can provide information regarding the local market’s capacity for debt.
  – The central bank may measure the capacity of the local market to absorb debt at different maturities.
  – If the central bank can estimate the volume and monthly flow of investable funds, it could assess how much the potential acquisition of sovereign debt by buy-and-hold investors such as pension funds or insurance companies will influence debt auctions.
Coordination in the management of government cash balances

• A second aspect of coordination relates to management of government cash balances.
  – This is required to avoid conflicts between debt or cash management by the treasury and the open market operations of the central bank.
  – How does the central bank incorporate the government’s short-term debt issuance into its estimate of what reserves are available and how much liquidity is in the economy?
• The government has the key information in its cash forecast, and it should be expected to share such data with the central bank.
• A shared forecast may be useful in assisting the bank in planning monetary policy.
Cash balance management

• An effective cash management program can be expected to take actions to maintain cash balances within a targeted range.
• The effect of these operations – assuming the government’s funds are kept at the central bank – may tend to neutralize the effect of the receipt and expenditure flows on banking reserves.
  – During periods of surplus, when funds are drawn in from the economy, the cash manager may place balances in bank accounts to earn interest on excess balances and add reserves to the banking sector.
  – During spells of cash stringency, with large expenditure flows out to the economy, the ministry of finance might issue treasury bills or take other forms of short-term credit that would drain reserves from the banking system.
• These actions are similar to the choices that would be made by the central bank in its open market operations. Financing and cash management actions by the ministry of finance can be seen as liquidity shocks that the central bank must address.
Central bank options when fiscal actions are contrary to monetary policy actions.

• The timing and amounts of government securities issuance will not always coincide with the needs of the central bank’s open market policy.

• The government may need to issue securities when the market is already short of liquidity.
  – The central bank must then choose the extent to which it will provide additional liquidity to the market to meet the government’s needs.
  – At a minimum, coordination requires that the issuer inform the central bank of its intentions in advance of taking action. The central bank should inform the issuer if it is advisable to adjust the timing and amount of borrowing to better conform to market conditions.
THE CENTRAL BANK AS AN ISSUER OF DEBT
Central bank issuance concerns

• In recent years, many emerging market central banks have been issuing their own securities.
• *When central banks issue securities, they have a direct impact on bank reserves, market liquidity and the sovereign yield curve.*
Securities issued by central banks

• Central banks may choose to issue their own securities.

• They do so to
  – neutralize the liquidity effects of other operations such as the purchase of foreign exchange reserves. They may look to short-term debt because it is often the most liquid part of the yield curve and that reduces their exposure to carrying costs and interest rate risks.
  – provide central banks with operational independence and flexibility in dealing with liquidity shocks. Their dependence on the government to conduct monetary operations can thus be greatly reduced.
Central bank debt adds a complication

- The twin uses of bills by both the central bank and the ministry of finance call for coordination between them.
- Coordination is sometimes attempted by having the central bank act both as agent for the government in securities issuance and in its own capacity for open market operations.
  - This solution has led to policy conflicts within the central bank. It becomes difficult for a single institution to pursue a consistent policy course when it is confronted by the sometimes contradictory objectives of debt management and monetary policy.
  - The central bank may need to indicate clearly to the market when it is operating as an agent of government and when it is seeking to alter money market conditions for monetary policy purposes.
Confusion in the bill market

• When debt instruments, particularly bills, are issued by both the central bank and the government, is market growth hurt and is monetary policy affected?

• It is possible for the cumulative issuance of both parties to overwhelm the local market’s capacity. Emerging market economies generally have very limited capacity for debt securities because personal savings may be low and markets are small.

• *Each party must take account of the actions of the other.*
Confusion in market prices

• If both the central bank and the government issue securities of overlapping tenors, how should the market interpret any spread between them?

• The two sources of debt should be equally risk-free:
  – Can the spread in yields be attributed to liquidity concerns?
  – Is there something implied by the market about the two institutions?
  – Can the difference be attributed to small variations in the date of issuance?

• The problem is that a spread between two seemingly equivalent debt issues can have implications for future auctions of both securities.
Confusion in policy aims

• The situation where one entity – usually the central bank acting as a fiscal agent – issues bills for *both* liquidity and cash management purposes may engender uncertainty among investors.

• Unless the purpose of each bill – liquidity or cash balances – is clearly reported to the market in the offering announcement, bill purchasers may misinterpret the meaning of the issuance and this may affect bidding.

• *For example, an effort to drain a large pool of liquidity might be interpreted as a near-term worsening of the government’s fiscal position.*
Bills in central bank policy – practical issues

• Does bill issuance for monetary policy purposes restrict the short-term credit market for ministry of finance debt?

• If, instead, the central bank acquires a portfolio of treasury securities from the market and engages in open market operations using the holdings in its portfolio, the market knows
  – that government-issued debt is for fiscal purposes and
  – that any central bank activity is strictly for monetary policy.

• The problem in emerging market economies is the absence of a healthy secondary market. If there is no functioning secondary market, does the central bank have any means to achieve its monetary policy goals without issuing its own debt, that is, through open market operations using government debt?
Debt maturity concerns

• How should the central bank determine the maturity of its issuance?
• If central bank bill issuance is tied to the movement of reserves into or out of the local banking sector, the tenors of the bills issued must relate to the expected term of the liquidity events.
• In setting maturities, there must also be recognition of the needs of the buyers of debt.
  – In the case of publicly traded firms holding sovereign debt, particularly banks, there will be accounting cycles that affect the demand for quality assets.
  – This is particularly true at quarter- and year-end and during central bank reporting periods; portfolios may be restructured to improve financial statements.
• The selection of tenors should balance the expected term of liquidity events and the accounting cycles used by debt buyers.
THE CENTRAL BANK AND THE DEVELOPMENT OF BOND MARKETS
The central bank and the development of bond markets

• The full range of monetary policy tools can be exercised only if there is an active, liquid and deep secondary market. An active secondary market, in turn, depends on many factors, including a well developed primary market, a diversified investor base and a modern market infrastructure.
  – In addition, adherence to market-determined interest rates is essential.
  – However, it is common practice in many developing countries to severely restrict price determination in government securities markets by constructing barriers to entry (e.g. foreigners), imposing mandatory investment requirements on domestic financial institutions or rejecting bids which diverge from a predetermined interest rate range.
The scope of the bank’s responsibilities

• How far should the central bank engage in the development of debt markets?
  – In the simplest case of only one objective (price stability), the central bank sets the overnight rate (or very short-term rate) appropriate to macroeconomic conditions.
  – The market will determine longer-term rates without central bank intervention.
    • A *laissez faire* view would assert that market rates convey valuable information about market expectations and about the perceived impact of policy changes.
    • Central banks, however, may have a special interest in developing debt markets and, given their knowledge about markets, they may be best suited for this responsibility.
Developing fair-price auction systems

• Central banks’ involvement could be important is in developing primary dealers to help ensure the success of primary issuance and the maintenance of liquidity in secondary markets.
  – Although primary dealers are principally intended to be market-makers, they may be forced to warehouse stock in markets with a thin investor base.
  – Given the risks and benefits of a primary dealer network, there are strong arguments for the central bank, with its closer involvement with local markets, to lead in establishing the network.

• The central bank may have a better understanding of the means by which it can encourage real participation by financial institutions in debt sales.
Scaling back buy-and-hold strategy

- Central banks must find ways of dealing with local financial institutions that lack experience or authority to trade in the secondary market.
- Many emerging markets are characterized by debt buyers who follow a buy-and-hold strategy.
  - This leads to thin trading markets with more volatile prices.
  - This further discourages trading as price risks increase with each reduction in market depth.
- In this situation, the foreign banks in the economy are more likely to have the staff capacity, the tools and the incentive to become traders of outstanding sovereign debt.
  - This gives an advantage to foreign banks in conducting local business.
  - The central bank may need to educate or otherwise assist local financial institutions in actively trading debt.
Primary dealers

• Most countries have selected financial entities to serve as primary dealers with the requirement that they function as market-makers in government securities. However, this effort has been stymied in a buy-and-hold market.

• Some central banks will buy tendered securities after they reach a certain point towards maturity.
  – Pricing such trades is challenging.
  – It can be assisted by reference to debt in more liquid markets, but this requires a strong argument for similarity of the redeemed debt instrument to the reference security.
  – The process may also carry an arbitrage risk.
Inflation-indexed securities

- In cases where the economy has seen very high inflation in the recent past, it is necessary for the issuer to offer such terms as will reassure the market about future inflation risks.
  - The issuer bears the additional risk of maintaining the asset’s purchasing power.
  - It is argued that the break-even rate of such indexed securities provides a measure of inflation expectations.
- This assumes that only the real rate of interest and the expected inflation rate are the significant components of the nominal interest rate, as the premium for inflation risk is eliminated by indexing.
- If, however, the market for indexed securities is thin or illiquid, there will also be a liquidity premium embedded in the yield.
- *This can lead to difficulties in the measurement of inflation expectations using the break-even rate.*
Foreign investors

• How does the central bank accommodate foreign buyers of longer-term securities in local currency?
• Since 2010, several states have begun to issue foreign currency loans.
  – These have met a ready audience searching for yield in a world where major market interest rates are at historic lows.
  – Some resource-rich countries are now witnessing an increase of investor interest in domestic currency issues of debt.
• If this continues, countries will see an inflow of foreign currency which can create challenges for monetary policy and financial stability, particularly by increasing the volatility of the exchange rate.
CONCLUSION
A Summary

• Sovereign debt issued by the central bank or by the ministry of finance benefits the economy by serving as a risk-free asset for financial markets and by establishing a yield curve for market pricing.

• The usual separation between debt management and monetary policy objectives is less relevant today because both the size and the maturity of sovereign debt have significant implications for the long-term interest rate and monetary conditions in the economy.

• This requires close coordination between the debt management and monetary authorities in designing an appropriate debt structure that not only reduces government borrowing costs but also leads to better management of monetary conditions.
Further …

• When central banks issue their own debt, such issuance needs to be closely coordinated with the government.
• Both government debt and central bank debt can have the same results for banking system reserves, yield curves, and market conditions more generally.
• *For this reason, the two institutions must coordinate their operations to avoid conflicts or overlapping efforts.*

• Central bank involvement in developing markets might be essential for setting up a benchmark yield curve and improving market liquidity, but such efforts need to be carefully designed so as not to
  – stifle private incentives and
  – dilute emphasis on central banks’ primary price stability mandate.
References