Financing the Budget

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Outline

I. Financing the budget and its macroeconomic consequences

II. Fiscal policy: Its impact and interrelationships with other macroeconomic sectors

I. Forms of financing the budget

The way in which the deficit is financed has macroeconomic consequences.

There are four forms of financing:

- Borrowing abroad
- Borrowing from the central bank (seigniorage)
- Borrowing from the domestic commercial banks
- Borrowing from the domestic nonbank sector

Financing of the budget

Total financing = - overall balance
Foreign (net)
New borrowing
Repayments
Domestic
Bank lending (net) – including C. Bank
New borrowing
Repayments of debt
Deposits
Non-Bank (net)
Privatization receipts

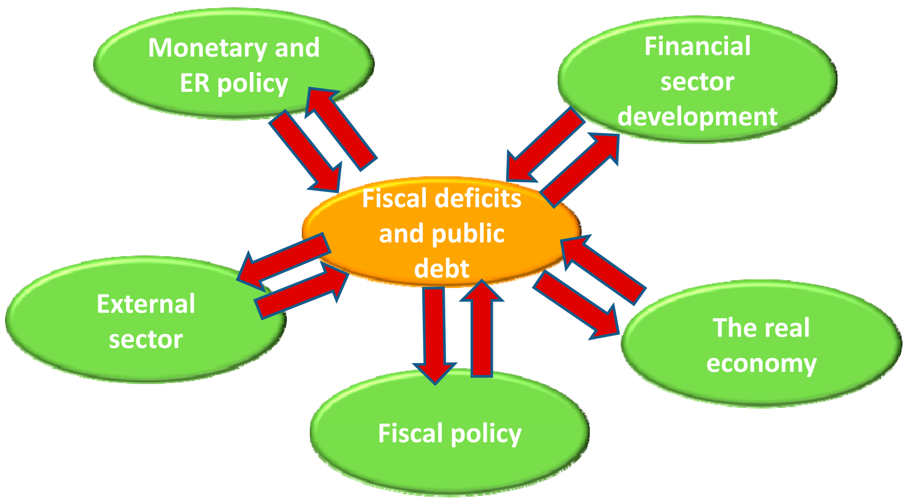
Gross Borrowing and Net borrowing

- Deposits at the central bank are an asset: accumulating deposits is an increase in assets (= decrease in net debt), drawing-down on deposits is a decrease in assets (= increase in net debt)
- Borrowing abroad (or domestically) to increase deposits is neutral on net debt (why?)

Impact of different forms of borrowing

- **Central bank borrowing:** by expanding money supply, can add to inflation. But monetary expansion can also increase the impact of fiscal expansion on demand.
- **Commercial bank borrowin**g: crowds out private borrowing, raising interest rates, unless central bank accommodates by supplying reserves. Then like above.
- **Domestic non-bank borrowing:** crowds out private borrowing that could be used to finance investment, less funding available for loans leads to higher interest rates
- **Foreign borrowing:** raises foreign debt and may lead to BoP problems; exchange rate risk; debt service needs may exert downward pressure on the exchange rate

II. Interrelationships



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Interrelations with the real economy

How conditions in the real economy affects financing:

- Low domestic private saving ➔ the government has to borrow from abroad
- Higher saving rates allow to shift source of financing between domestic and external

How fiscal financing may affect the real economy

- Long-term public debt may crowd out private investment, while short-term affect the cost of liquidity operations

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Interrelations with monetary and ER policy

How monetary policy affects fiscal financing:

- High inflation, or expectation of high inflation, or lack of monetary policy credibility to fight inflation ➔ reluctance to accept long-term fixed rate debt ➔ high cost to issue such debt, too much short-term debt
- Interest rate policy (both discount rate and through open market operations) determines interest rate on new debt

Interrelations with monetary and ER policy

How fiscal financing affects monetary policy:

- Complement monetary and ER policy
  - Foreign currency debt may help accumulate reserves or reduce reserve loss in case of temporary current account shocks.
- Reinforce the credibility of monetary and EX policies
  - Issuing debt denominated in foreign currency helps reinforce commitment to stable exchange rate (it increases the cost of reneging on these promises); issuing floating rate debt reinforces commitment to fighting inflation.
- Support more active open market operations
  - By issuing more short-term debt (either to banks or directly to the central bank—and accumulating deposits) allows the central bank to conduct more active open market operations.

Interrelations with monetary and ER policy

How public debt affects monetary policy:

- High public debt may constrain monetary policy
  - Large foreign currency exposure limits the ability to conduct counter-cyclical monetary policy (for example, by depreciating the exchange rate) in a period of crisis as this could create a debt problem.
- If monetary policy lacks credibility, financing may weaken credibility even more
  - Issuing only short-tem debt may signal the government's recognition that monetary policy is failing to contain inflation
  - If the central bank lacks independence, issuing floating rate debt or short-term debt may decrease even further credibility of monetary policy: investors may think that the central bank will not increase interest rates (even if it should) to contain interest payments.

Interrelations with financial sector

How financial market structure affects fiscal financing:

- Deep and liquid domestic capital markets help the government avoid issuing in foreign currency

How fiscal financing and public debt affect financial market structure:

- With government debt (which is risk free) market learns how to price any type of bond and issuing debt of different maturities help the market to form a yield curve; this helps develop financial market
- Regular and predictable issuance increases market efficiency (cash management should not drive issuance schedule)
- Short term debt allows develop repo and money markets

Interrelations with external sector

How the external sector affects fiscal financing:

- Interest rate conditions abroad, or risk appetite of foreign investors may decrease the cost of external borrowing.
- Aligning the currency composition of external debt to the currency basket or to net trade flows is important to ensure adequate coverage of currency needs.
- Exchange rate volatility makes the cost of servicing debt difficult to predict.

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Interrelations with fiscal policy

How fiscal policy affects fiscal financing:

- Fiscal policy determines future financing needs
- The level of debt may make it difficult to increase credit ratings, or decrease risk premiums and so makes debt even more expensive
- The realization of contingent liabilities could impair achieving debt management objectives.

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Examples: Consequences of public debt on financial sector stability

Balance sheet connections across sectors (I)

- Consider the stock of assets and liabilities at a certain point in time for the main sectors of the economy:
  - the government (including the central bank)
  - the private financial sector (mainly banks)
  - the non-financial sector (corporations and households)
  - external (non-resident) entities

Balance sheet connections across sectors (II)

Government sector	
Assets	**Liabilities**
Claims on: Financial sector Non-fin private sector External	**Obligations to:** Financial sector Non-fin private sector External **Net worth**

Financial sector	
Assets	**Liabilities**
Claims on: Government sector Non-fin private sector External	**Obligations to:** Government sector Non-fin private sector External **Net worth**

Non-financial private sector	
Assets	**Liabilities**
Claims on: Government Financial sector External	**Obligations to:** Government Financial sector External **Net worth**

External sector	
Assets	**Liabilities**
Claims on: Government Financial sector Non-fin private sector	**Obligations to:** Government Financial sector Non-fin private sector **Net worth**

Financial risk

- Each sector is creditor of and debtor to other sectors.
- Each sector is exposed to financial risk.

Financial risk is the exposure to an uncertain outcome associated with holding financial assets / liabilities

Financial risks related to liabilities
Maturity mismatch risk
Currency mismatch risk
Capital structure mismatch
Solvency risk

Financial risks related to Assets
Credit risk
Interest rate risk
Exchange rate risk
Liquidity risk

Impact on financial sector stability: EU crisis (I)

Government sector		Financial sector	
Assets	Liabilities	Assets	Liabilities
Reserves	Bonds	Bonds	Deposits
		…	…

- Current Euro-periphery type propagation of risk:
- Concerns for public debt sustainability lead to a decrease in the value of bonds
- Decrease in value of banks' assets
- Banks need to re-capitalize / deleverage and find difficult to obtain financing from ECB
- Government faces financing constraints, interest rates increase, debt becomes even less sustainable
- Deleveraging, higher interest rates, debt sustainability concerns aggravate recession, which make conditions even worse

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Impact on financial sector stability: EU crisis (II)

Policy response to break this vicious circle:

- Fiscal consolidation and increased recapitalization of ailing banks to gain confidence from markets
- However, fiscal consolidation does not shake hands with the recapitalization of banks: the latter needs further fiscal spending, but the former may not afford it.

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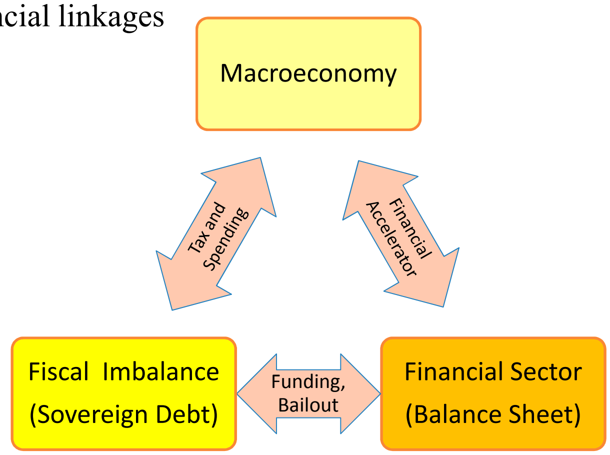
Impact on fin. sector stability: EU crisis (III)

The euro area debt crises ➔ Destabilizing funding pressures for the banking sector ➔ fiscal-financial spillover ➔ macro-financial linkages



Impact on fin. sector stability: Argentina's crisis

Government sector	
Assets	**Liabilities**
Reserves	Bonds

Financial sector	
Assets	**Liabilities**
Bonds …	Deposits …

Non-financial private sector	
Assets	**Liabilities**
Deposits	Mortgages …

- Argentina 2001 type propagation of risk:
- Banks held most of their assets in government bonds and had deposits in dollars
- Fear of debt sustainability and possible devaluation lead to a run on deposits
- Bank crisis erupted

Conclusions

- How fiscal deficit is financed has macroeconomic consequences:
  - External borrowing versus internal borrowing
  - Internal borrowing: Non-bank versus commercial bank versus central bank
- Financing of fiscal deficit has implications for all other sectors of the economy (and is impacted by them):
  - Real Sector
  - Monetary Sector
  - External Sector
  - Exchange Rate
  - Financial stability

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