Macroeconomics Theory of the Open Economy 1

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Current Event

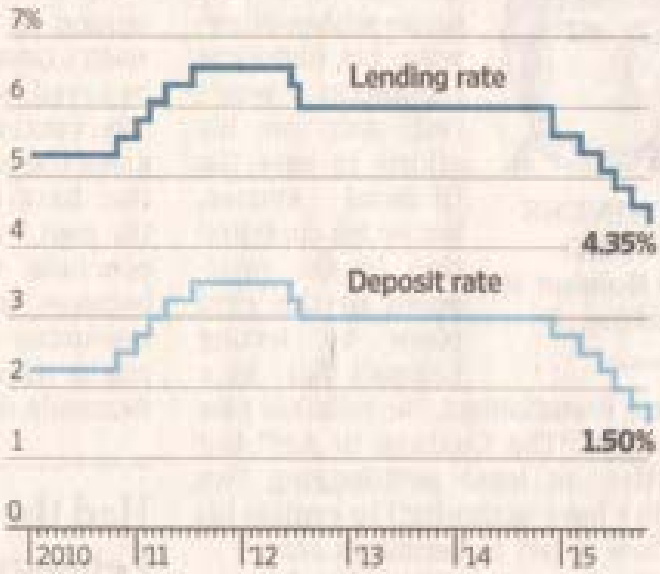
- "China (Interest Rate) Cut, Powers Markets," WSJ, 10-24-15

- China's GDP growth slowing down=> Central bank moves to stimulate the economy
  - Buy or sell bonds?
  - If R decreases, what happens to the MM?

Loosening the Cash Spigots

The People's Bank of China lowered its benchmark lending and deposit rates to stimulate borrowing and spending without squeezing banks' ability to profit from the spread between the two rates. The central bank also trimmed back the percentage of deposits that larger banks need to keep as reserves.

Benchmark rates on loans of as much as a year and one-year deposits



Reserve ratio for large banks

Source: People's Bank of China via CEIC Data

THE WALL STREET JOURNAL.

Outline: Unit IV, Section OE 2

I. Net Capital Outflow (NCO)
II. Linking financial capital flows and the flow of G&S
III. Savings (S), Investment (I), and Net Capital Outflow
IV. Market for Loanable Funds (LF)
V. [Market for Foreign-Currency Exchange(FX)]

I. Net Capital Outflow (NCO)

Recall:

NCO = (Purchases of foreign assets by domestic residents)
– (Purchases of domestic assets by foreigners)

$$NCO = f\left(r_{dom}, rfo_r, Risk_{for}, GvtPolicy_{asset\ ownshp}, \dots\right)$$

\- + - -/+

Summary of Terminology

- Current Account Balance = NX
  - a.k.a. Trade Balance
- [Capital Account Balance = -NCO]
  - [Capital account surplus: NCO<0]
  - [Capital account deficit: NCO>0]
- Balance of Payments
  - Current Account + Capital Account = 0
  - NX + (-NCO) = 0 => NX = NCO

Net Capital Outflow: NCO(r)

II. Link between NX and NCO

Accounting identity:

$$NX = NCO$$

Assume Apple sells an iPhone in the UK for 500 £

=> $NX = 500£$

What can Apple do with the 500 £?

1. Keep the 500 £ in its accounts => NCO = 500 £
2. Purchase 500 £ of stocks or bonds in the UK=> NCO = 500 £
3. Purchase 500 £ of G&S in the UK => $NX = 0 = NCO$

- Alternatively: Convert 500 £ into USD in the FX market
  - Some other US resident now has the 500 £

    => 1.,2.,3. above

III. S & I in the National Income Accounts

$$Y = C + I + G + NX$$
$$NX = NCO$$

$$Y = C + I + G + NCO$$
$$Y - C - G = I + NCO$$
$$(Y - C - T) + (T - G) = I + NCO$$
$$S = I + NCO$$
$$S^{PR} + S^{PUB} = I + NCO$$
$$S^{PR}(r) + S^{PUB} = I(r) + NCO(r)$$

IV. Market for Loanable Funds (LF)

- LF market diagram
  - Axis labels: (Q_{LF}, r); Units: (B of USD, %)
  - S curve & its components
  - D curve & its components

- NCO diagram
  - Axis labels: (NCO, r) Units: (B of USD, %)
  - NCO diagram will interact with LF market diagram

Graph: $S^{PR}(r), S^{PUB}$

Graph: $S(r) = S^{PR}(r) + S^{PUB}$

Graph: $I(r)$,$NCO(r)$

Graph: $I(r) + NCO(r)$

Graph: LF Market + NCO

Market for Loanable Funds Summary

Supply

- Savings: $S^{PR}(r) + S^{PUB}$
  - H (or F) spend less than they earn
  - Government Savings = (T – G)
- Slopes upward

Demand

- Investment: $I(r) + NCO(r)$
  - F (or H) who wish to borrow to make investments in K
  - NCO: Savings that are sent to foreign countries
- Slopes downward

Net Capital Outflow Summary

- NCO = NCO(r)
  - If r increases =>
    - Foreign residents will purchase more US assets
    - US residents will sell foreign assets, and purchase more US assets

V. Foreign-Currency Exchange Market

Assume NCO = NX > 0

[e = 1 € / USD]

<u>Supply</u>

S: NCO

- If a US resident buys a 500 € German bond

  => Exchange $500 USD for 500 €

  => Supply $500 USD in FX market

FX Market

<u>Demand</u>

D: NX

- If a German resident buys a $500 US car

  => Exchange 500 € for $500 USD

  => Demand for $500 USD in FX market

- NX = NX(E)
  - If E increases =>
    - US G&S are relatively more expensive => X decrease
    - Foreign G&S are relatively cheaper => IM increase