
ECN 160B Lecture 12

International Macroeconomics

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Money I: a brief review

- Q: Why do we need to refresh our understanding of money?
- In this course we focus on factors that determine exchange rates
- Since exchange rates are relative prices of moneys, money demand and supply are the most important factors in exchange rate determination.
- We have learned already that exchange rates are affected by
 - I. Interest rates & II. Expectations of future exchange rates
- Clearly, demand & supply for money are relevant for determination of both, interest rates & expectations.

Money II

- Expectations of future exchange rates depend on monetary and non-monetary factors (for example technology), Ch. 14 focuses on monetary factors only.
- Plan for Ch. 14:
 - 1. To show how money equilibrium (money demand= money supply) permits to determine interest rates
 - 2. Combine with IRP to study how money shifts affect exchange rates.
 - 3. Long-term effects of monetary changes on output prices and expected future exchange rates.

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Money III: Functions

- Functions of money KO, p. 358
- Money as a Medium of Exchange - money are standardized and convenient (as universally accepted) means of payment. Important in exchange economy: barter is inefficient!
- Money as a Unit of Account. Think of Ch. 13 calculations (sweater/jeans) and imagine the need to analyze relative prices for ALL goods and services that you consume. Appreciate the role of money as a unit of accounting!

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The more exchanges (tradables vs nontradables) in economy, the more important money are. Similarly, when the share of imports /exports to GNP is raises, some does the importance of exchange rates.

Money IV: Functions (cont.)

- Money as a Store of Value - we talked of this function of money in your previous lecture. Money as the most liquid asset. (Think of hyperinflation) High inflation erodes the role of money as a store of value.
- Q: Why these days Central Banks are getting "more responsible" (i.e., less inflationary) than in the past?
- A: Globalization: Relative ease of switching to another, more "valuable" currency.

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Money IV

- Monetary aggregates: money and near-money
 - M1 - currency and checking deposits of firms and households about 11% of GNP
 - M2 - includes less liquid assets (such as time deposits, which have a penalty for early withdrawal)
 - M3 - even broader measure
- In KO, money supply = $M^s = M1$
- Shifts in Money Demand (M^d) related with
 - Risk, KO, p. 360-361 - not important for $M^d \downarrow$
 - Return KO, p. 360 expected returns $\uparrow M^d \downarrow$
 - Liquidity KO, p. 361 need for liquidity $\uparrow M^d \uparrow$

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Risk: Since risk in bond value and in money value follow the same pattern (as reflected in "consumer basket) risk does not affect money demand

Expected Return: All else equal, a rise in the interest rate cause the demand for money to fall

Liquidity: A rise in the average value of transactions carried by a household or firm causes its demand for money to raise.

Money V: Money Demand M^d

- Aggregate demand for money depends on:
 - The interest rate R
 - The price level P
 - Real national income Y
- $M^d = P \times L(R, Y)$ [KO14-1] or
- $M^d/P = L(R, Y)$ [KO14-2]
- $L(R, Y)$ is aggregate real money demand

Money VI: Equilibrium

- Equilibrium interest rate: interaction of M^d and M^s
- Money market equilibrium:
- $M^s = M^d$ [KO14-3]
- $M^s/P = L(R, Y)$ [KO14-4]
- The market always moves to an interest rate at which real money supply equals aggregate real money demand. If there is an excess of money supply, R falls, and if there is excess in money demand R raises.
- See Figures 14-1, 14-2, 14-3

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How to reach equilibrium R ? by selling or buying interest bearing assets

Money VII: Assumptions

- To simplify, KO, Ch. 14, assumes
 - Money supply is fixed by Central Bank (CB) at the desired level
 - We assume that money market is in equilibrium (KO, p. 362), and
 - We take price level as given
 - We take output level as given

The Role of Central Bank

- KO, Ch. 12, pp. 313-316. By definition, CB is an institution responsible for the supply of money. In US Central Bank is called Federal Reserve System (or Fed).
- Official ForEx intervention by CB is its selling or purchasing international reserves in private markets aiming to effect macroeconomic conditions. Also, ForEx intervention is a way to add or withhold money from circulation. Official ForEx intervention is summed in official settlements balance, which is identical to the BoP.

Next Lecture

- Discussion of the relevant variables & investigation of relationships between them
- Money Demand (& its determinants)
- Money Supply (& its determinants)
- What are the shifters of money demand & supply
- Your preparation: continue to read KO Ch. 14

Summary of Today

- Money: Relevance & a Brief Review
- Functions of Money
- Expected return, risk & liquidity revisited
- Assumptions of Ch. 14
- Have a Nice Weekend