

Lecture 2: THE RATE OF INTEREST AND THE BUSINESS CYCLE (according to Kalecki)

Lectures in the Theory of Interest and Monetary Policy

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Summary

1. Introduction
2. The short-term rate of interest
3. The long-term rate of interest
4. Debt management and the yield curve

1. Introduction

- Models vs. Institutions: institutions come first;
- Yield curve resolution to Fisher's 'asymmetric preferences' of borrowers and lenders **actually resolved** by **financial innovation**:
- Long-term finance allows firms to borrow long term in bond market; and allows lenders short-term commitment with secondary market.

1. The Short-term rate of interest

- Rate of interest on borrowed reserves at central bank (US Federal Funds rate); or
- Discount rate on 'first class' (government) bills (UK Bank Rate); or
- Purchase/resale margin, or 'repo rate'.

Keynes's Liquidity Preference Theory

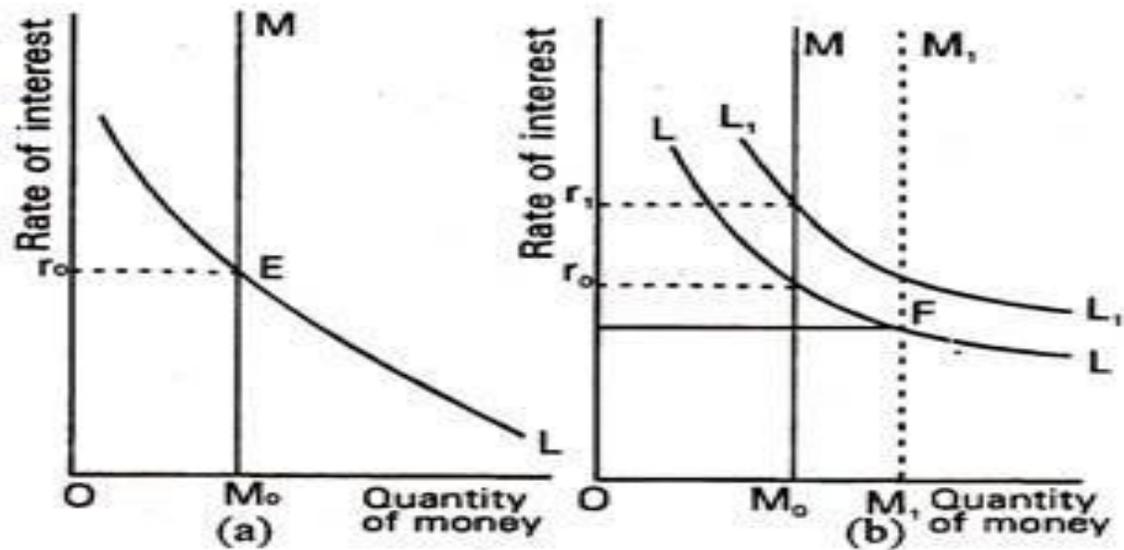


Fig. 15.3. The Determination of the Rate of Interest

Keynes's theory

- Central bank sets money supply to fix (short-term) rate of interest;
- Short-term rate of interest affects long-term rate;
- Long-term rate affects investment and the real economy;
- 'Problem' of the 'liquidity trap'.

Kalecki's theory of the short term rate

'The short-term rate of interest is closely connected with the marginal convenience of holding cash. Indeed, if the short-term rate is higher than this marginal convenience, there is an inducedment for lending additional cash; if the short-term rate is lower, it becomes profitable to withdraw from short-term assets and acquire cash. Thus, equilibrium is reached when the short-term rate of interest is equal to the marginal convenience of holding cash.' (Kalecki 1943)

The link with the 'velocity of circulation'

'... The higher the short-term rate of interest the greater is the inducement to invest money for short periods rather than to keep it as a cash reserve. Or, to put it more precisely: transactions can be managed with a larger or smaller stock of money; however, a larger stock of money in relation to turnover means on the average a smoother and more convenient handling of transactions. The higher the short-term rate of interest the more expensive is this convenience as compared to the convenience of investing in short-term assets.' (Kalecki 1954)

‘We reached the conclusion above that the velocity of circulation V is an increasing function of the short-term rate of interest r_s

or:

$$T/M = V(r_s)$$

Institutional foundation: Liquidity management

- Rate of interest determines money supply, vs. Money supply determines rate of interest (Keynes).
- Banks holding of surplus reserves;
- Household holding of excess balances in bank checking accounts;
- Firms' Treasury management;

Baumol's 'Square Root' model

- Transactions demand for Money, M_T

$$M_T = \sqrt{(b.T/2.r_s)}$$

Baumol comparison:

- Baumol: short-term rate of interest affects Transactions demand for money; no variable velocity.
- Kalecki: changes in short-term rate of interest affect the velocity of circulation of money and holdings of 'convenience' money;
- Kalecki: Velocity of circulation and short-term interest rates rise in boom and fall in recession.

But...

'It should be added that the movements of the short-term rate of interest in the 'thirties' both in the United Kingdom and in the United States are not quite typical in pattern [of velocity and interest rising in boom and falling in recession].

Both in the United Kingdom and in the United States there is a sharp fall in the depression years (with a temporary reversal in 1931 in the United Kingdom and in 1932 in the United States reflecting the financial panic). However, in the years of recovery the short-term rate continues to fall, thus reflecting a basic shift towards 'easy money' in banking policy.' (Kalecki 1954).

e.g., Shifts to 'easy money' US Federal Funds rate in 1970s and 1980s.



3. The long-term rate of interest

- Hicks' 'pure expectations' theory:

The long-term rate is the average of the *expected* short-term rate of interest.

- Kalecki's theory: pure expectations theory + risk margin.
- Risk margin depends on likelihood of a capital loss, due to bond price fluctuations.

Kalecki's conclusion

(and Hicks', Hawtrey's, Shackle etc.)

'...the long-term rate does not show marked cyclical fluctuations... The short-term rate normally falls in a slump and rises in a boom because the supply of money [bank reserves – JT] undergoes smaller fluctuations than the value of transactions. But the long-term rate reflects these fluctuations only to a small extent. Indeed, the long-term rate is based on the average short-term rate expected in the next few years rather than on the current short-term rate; moreover, the long-term rate changes considerably less than the expected short-term rate because the increase in it, that is, the fall in the price of bonds, makes the risk of their further depreciation less likely

Institutional foundations

- Hicks' 'pure expectations' depend on arbitrage along the yield curve.
- But 'Preferred habitat' theory of the yield curve:
 - Long-term rate determined in the bond market, where pension funds & insurance companies operate;
 - Short-term rate determined in banking/money markets;
- But 'hedge funds' and private equity arbitrage between long and short-term markets.

The significance of the long-term rate

‘Some authors have attributed to the rate of interest an important role among the forces underlying economic fluctuations. As it is the long-term rate that is relevant to the determination of investment and thus to the mechanism of cyclical process, the results arrived at ... are of considerable significance...in view of the fact that the long-term rate of interest...does not show marked cyclical fluctuations, it can hardly be considered an important element in the mechanism of the business cycle.’ (Kalecki 1954)

4. Debt management and the yield curve

“There is no neat way to distinguish monetary policy from debt management, [both] the Federal Reserve and the Treasury ... are engaged in debt management in the broadest sense, and both have powers to influence the whole spectrum of debt... ...The Federal Reserve cannot make rational decisions of monetary policy without knowing what kind of debt the Treasury intends to issue. The Treasury cannot rationally determine the maturity structure of the interest-bearing debt without knowing how much debt the Federal Reserve intends to monetise.’ (Tobin 1963)

'Operation twist'

'Over-issue' of short-term bills, with proceeds used to buy long-term government bonds.

As bond prices rise, government issues new bonds, to repay bills.

Allows government to maintain control of long- and short-term interest rates.

Vs. Quantitative Easing and reserve creation to buy in bonds.

QE and reserve creation

- Increases liquidity of portfolios → higher possibility of financial instability.
- Kalecki's 'debt management': varying financing of budget deficit between bills ('floating debt') and long-term bonds in order to keep yield curve stable (accommodate investors' 'liquidity preference').
- Use of wealth and profit taxes to manage portfolio liquidity.

Effects of central bank debt purchases

