

Money and Macroeconomics

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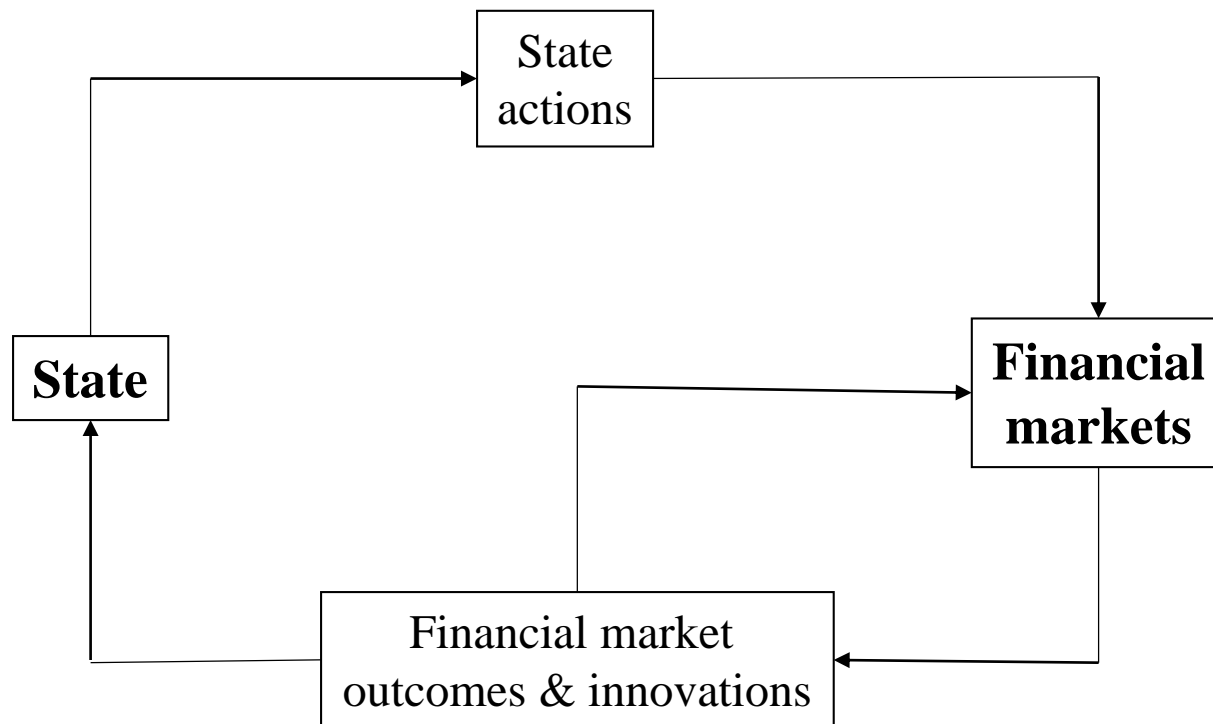
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What is the difference between
macroeconomics & microeconomics?

Money & monetary systems

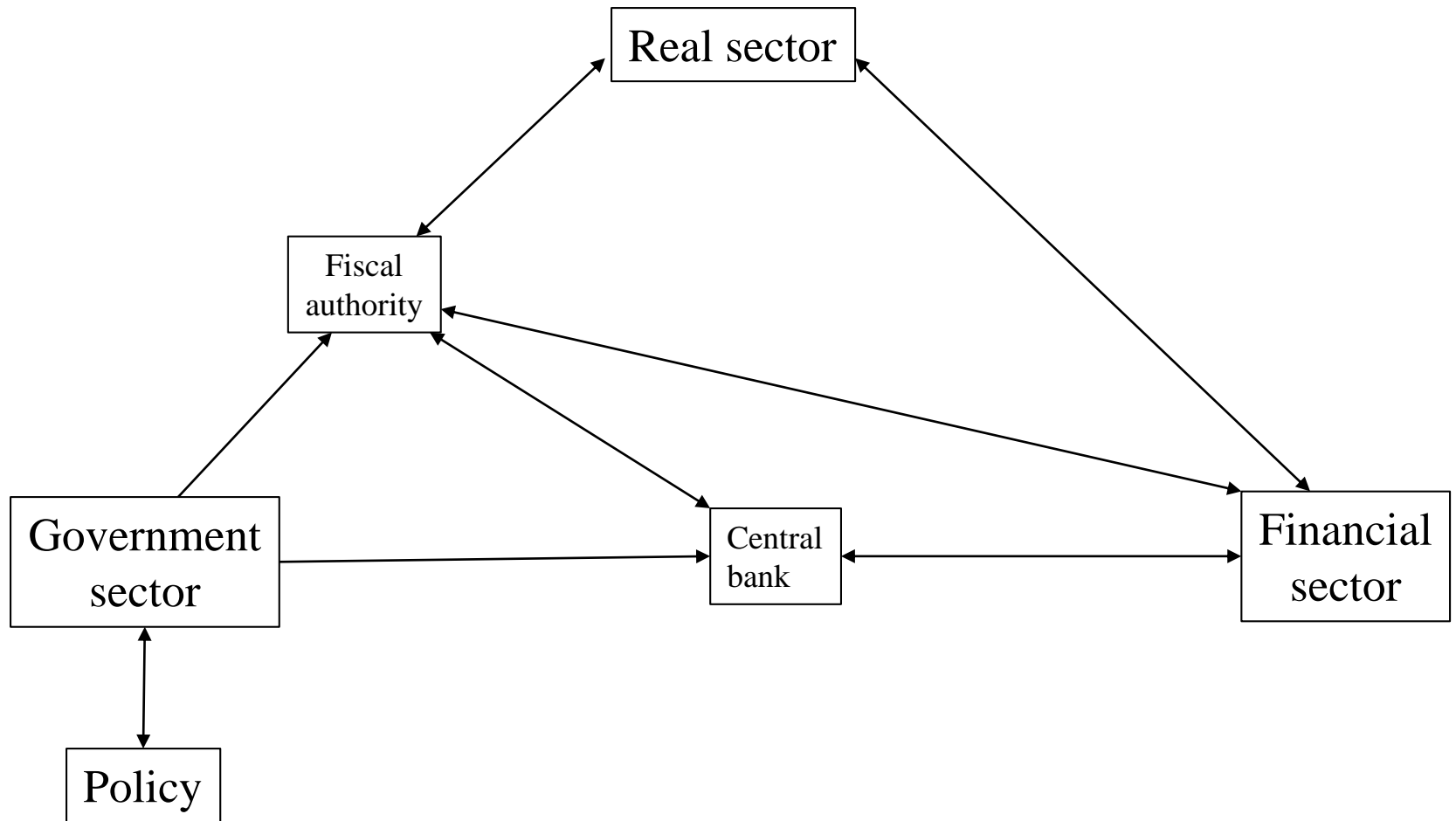
Figure 1. The financial market – state dynamic governing the evolution of money and the monetary system.



Lessons from the history of money & the monetary system

Money & the structure of macroeconomics

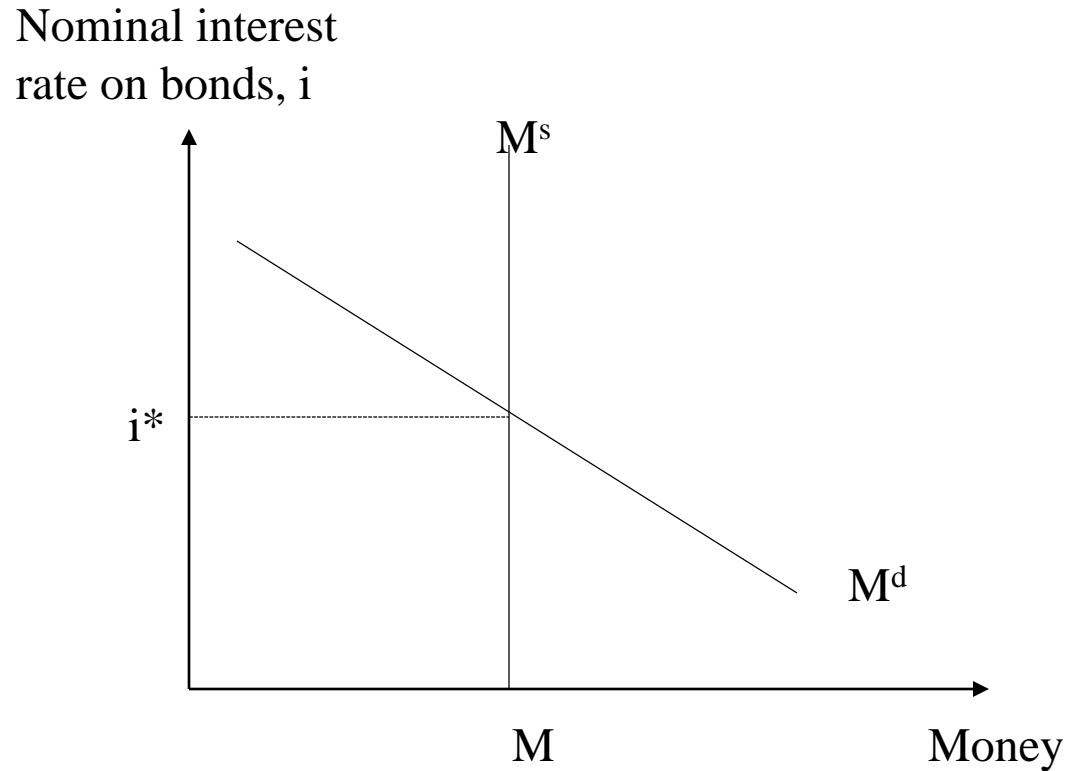
Figure 2. A simplified representation of the macro economy.



Endogenous credit money: a missing step in
the Keynesian revolution

Keynesian monetary theory reconsidered

Figure 3. Keynes' *General Theory* model of interest rate determination.

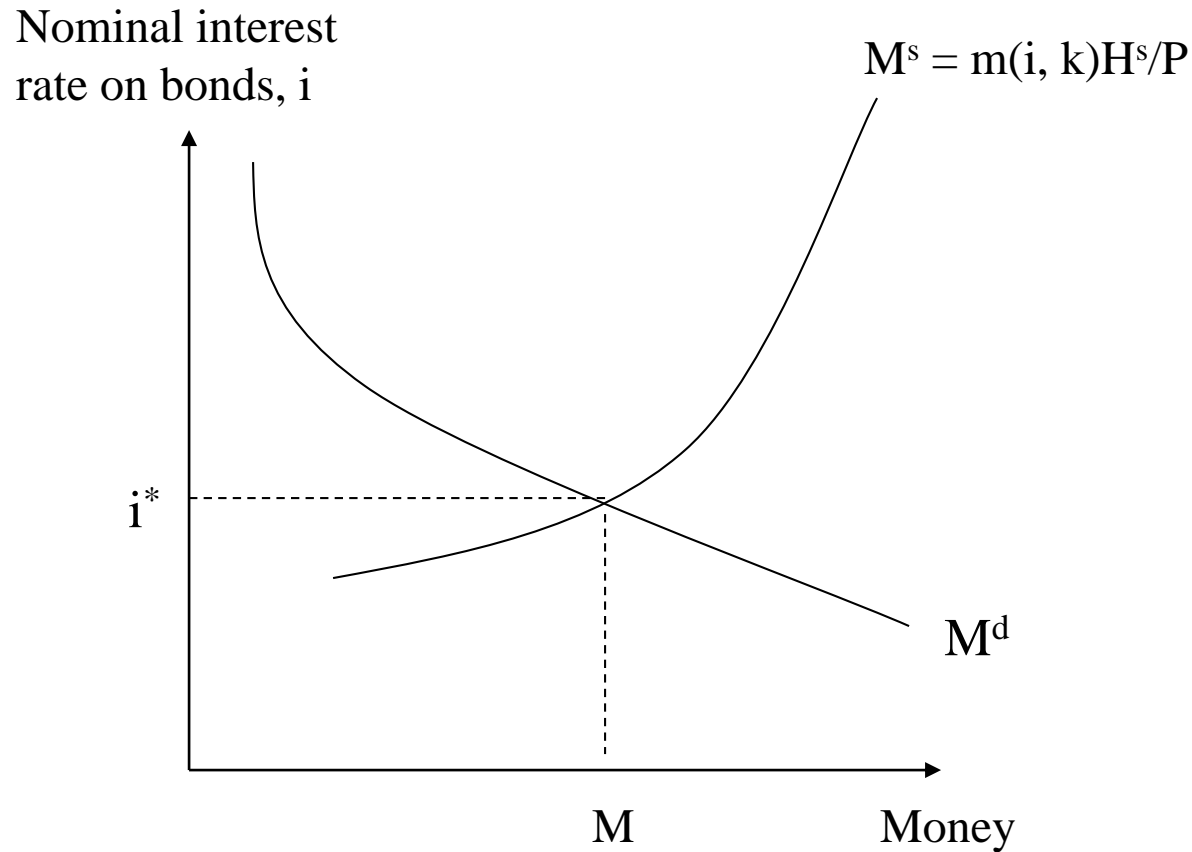


(1) $M^s = M/P$ (2) $M^d = M(i, y, X)$ (3) $M^s = M^d$ $M_i < 0, M_y > 0, M_X > 0$

M^s = real money supply, M = exogenous nominal money supply, P = general price level,

M^d = real money demand, i = nominal interest rate on bonds, y = real income, X = state of bearishness.

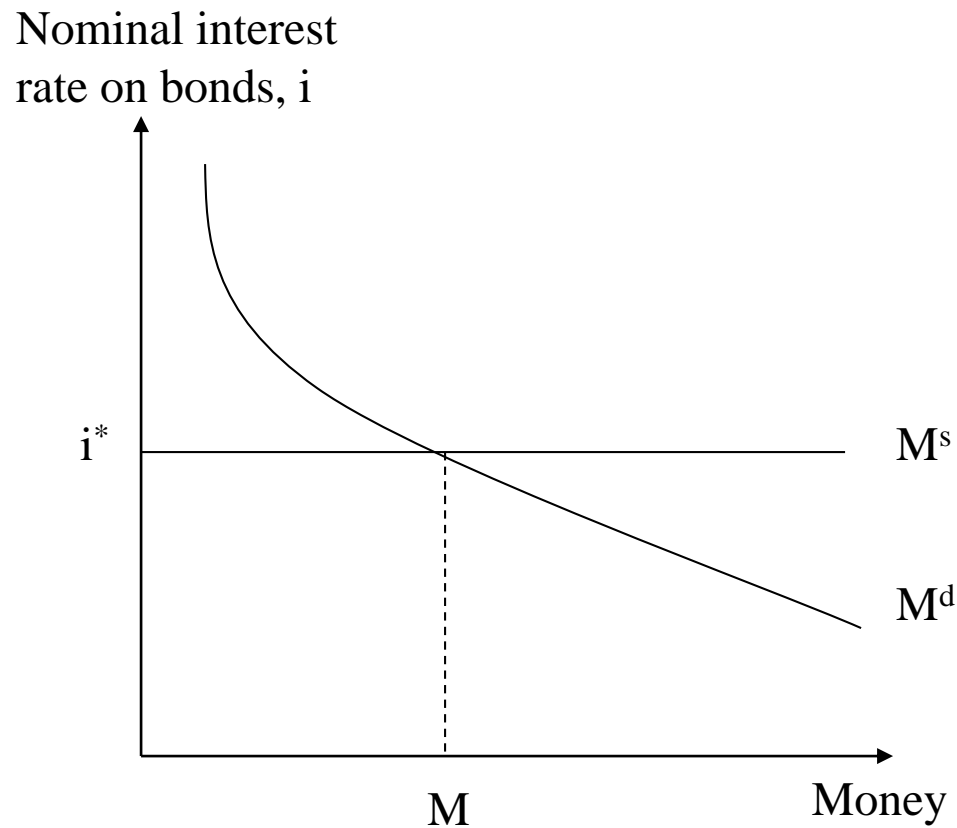
Figure 4. The neo-Keynesian model of the money supply process.



(5) $H^s = H/P$ (6) $M^s = m(i, k)H^s$ (7) $M^d = M(i, y, X)$ (8) $M^s = M^d$ $m_i > 0, m_k < 0, M_i < 0, M_y > 0, M_X > 0$.

H^s = real supply of outside money (liabilities of the central bank), H = exogenous nominal outside money supply, $m(\cdot)$ = money multiplier, k = reserve requirement ratio for inside money (bank deposits).

Figure 5. The neo-Keynesian model of the money supply process with interest rate targeting by the central bank.



Against monetarism: the origins of PK
endogenous money theory

Figure 6. Competing approaches in the Post Keynesian theory of endogenous money supply.

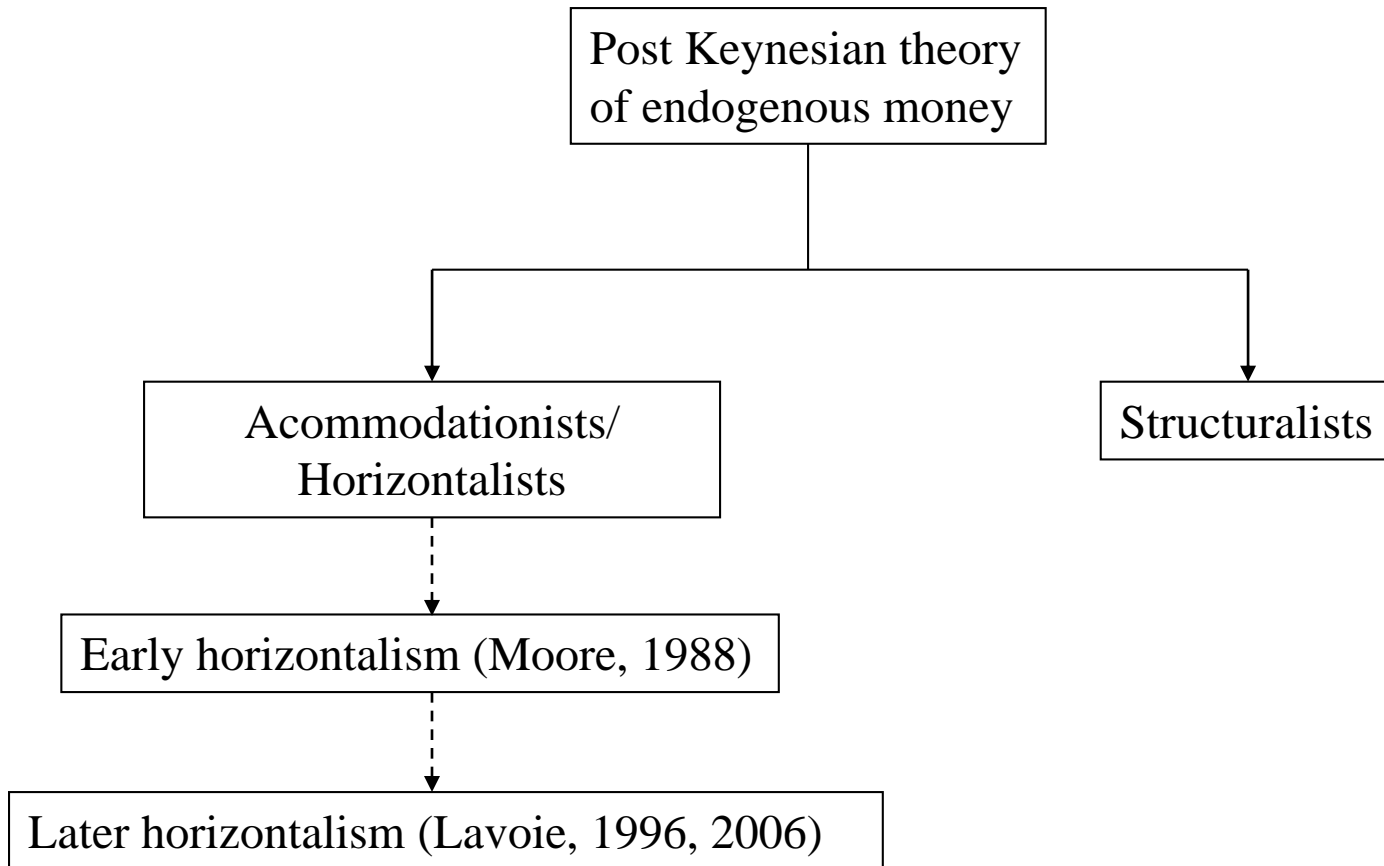
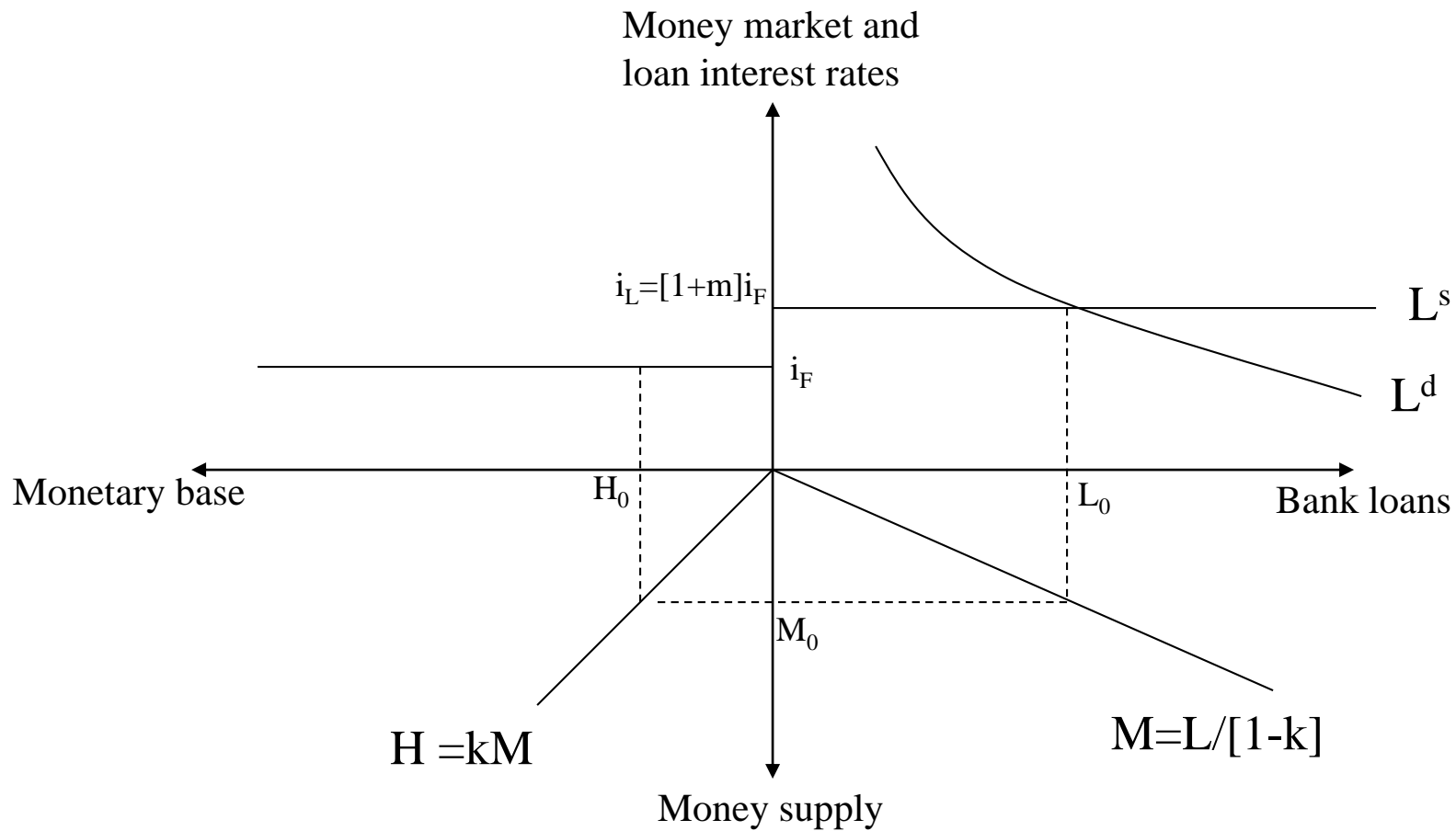
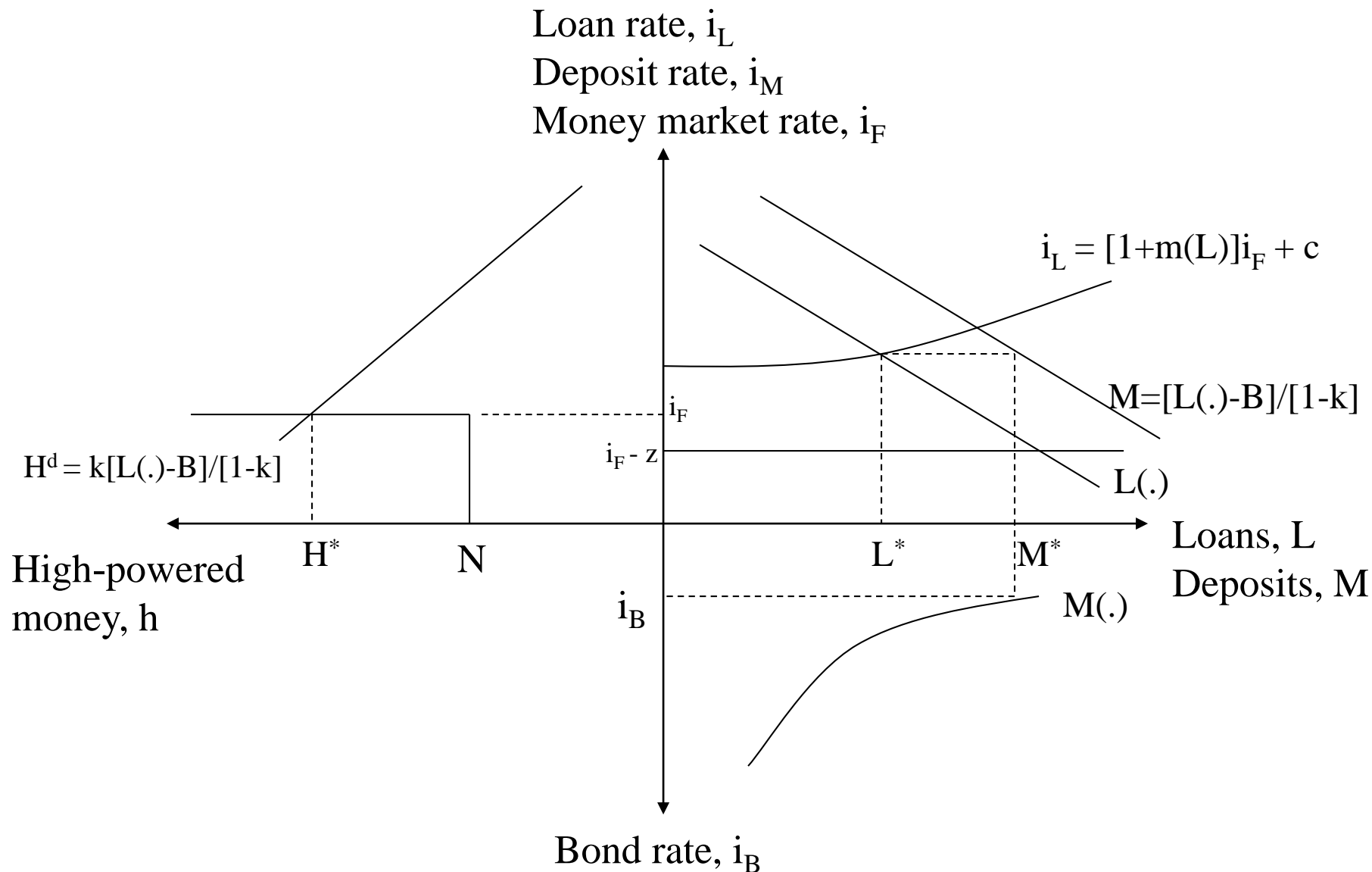


Figure 7. The horizontalist model of the money supply process.



Structuralism

Figure 8. The structuralist model of determination of the money supply, bank lending, and interest rates.

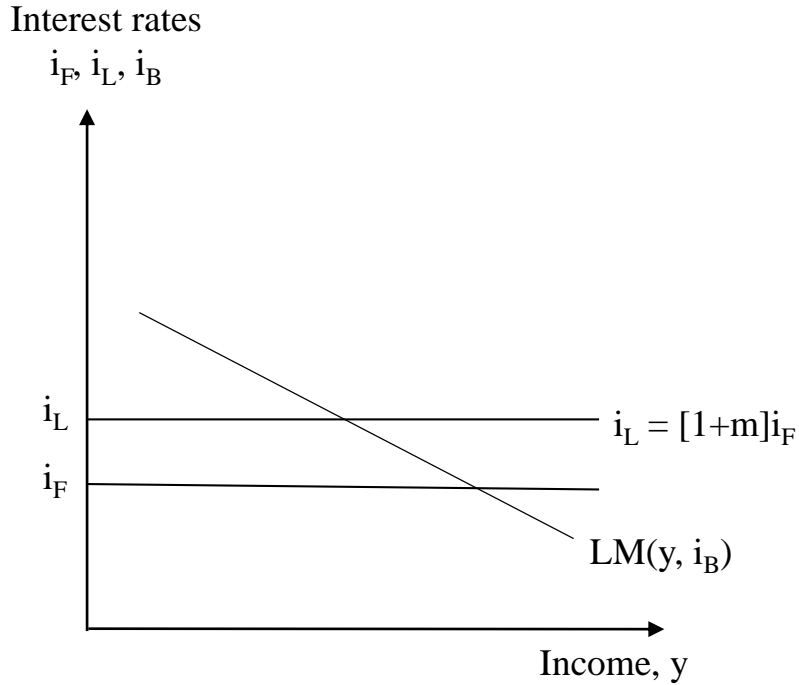


Refining the structuralist model

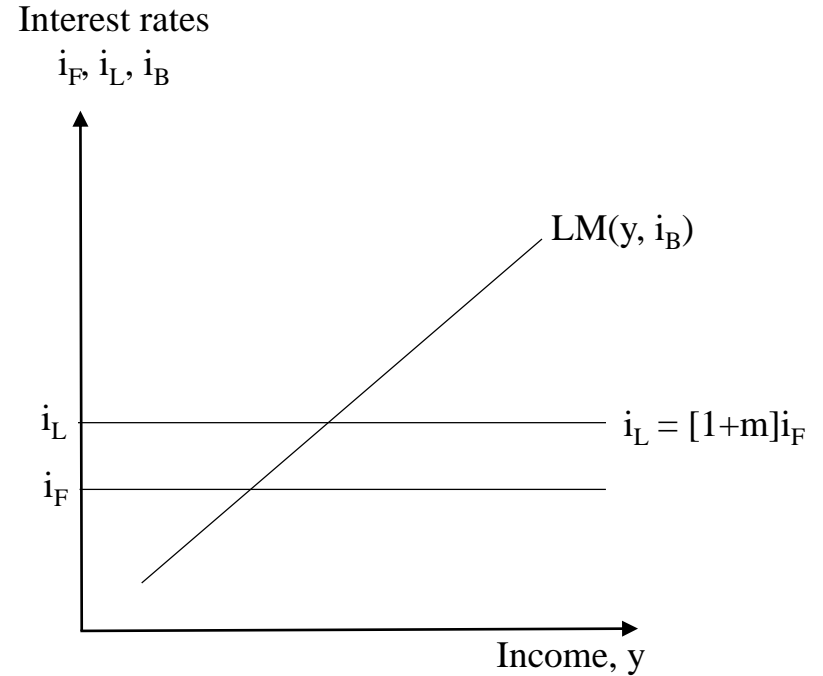
- [A] Make loan demand a positive function of the bond rate.
- [B] Credit rationing.
- [C] Endogenize the target interest rate.

Reconstructing the LM schedule

Figure 9. The LM schedule in an endogenous money system.



Case 1: loan demand more income elastic than money demand.



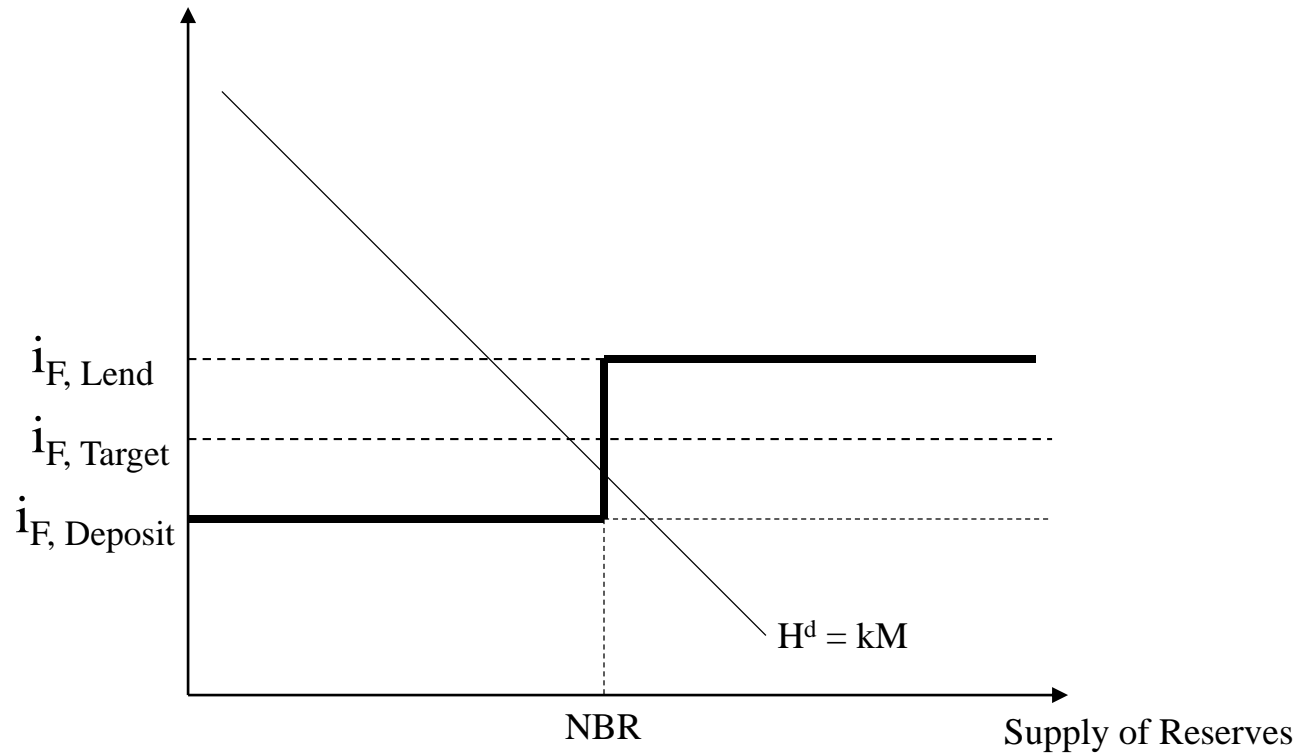
Case 2: loan demand less income elastic than money demand.

Monetary policy

- (1) Short term interest rate policy (NW quadrant in Figure 8).
- (2) Managing the credit market and money creation (NE quadrant).
- (3) Long term interest rate policy (SE quadrant).
- That is a very different description of monetary policy than the neo-Keynesian model with interest rate targeting.

Figure 10. The “corridor” model of short-term interest rate management.

Central bank short-term interest rates



Long-term interest rate management:
permanent QE

Credit markets and Asset Based Reserve Requirements (ABRR)

- (1) What are ABRR?
- (2) ABRR would improve the conduct of monetary policy.
- (3) Other benefits of ABRR.
- (4) ABRR provide a superior exit strategy from QE