

Money in the Economy: A post-Keynesian perspective

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Fundamental Uncertainty

- Originates in Keynes' theory of probability
- “non-ergodic” = distinction between known probability distribution (known unknowns) and unknowable future (unknown unknowns)
- Risk and uncertainty
- Conventions and animal spirits
- Decisions on investment and saving

“Is our expectation of rain, when we start out for a walk, always more likely than not, or less likely than not, or as likely as not? I am prepared to argue that on some occasions none of these alternatives hold, and that it will be an arbitrary matter to decide for or against the umbrella. If the barometer is high, but the clouds are black, it is not always rational that one should prevail over the other in our minds, or even that we should balance them, though it will be rational to allow caprice to determine us and to waste no time on the debate” (Keynes, Treatise on Probability)



Money

- Mechanism to cope with uncertainty
- Three functions: store of value, unit of account, means of payment
- Liquidity
- Means to transfer purchasing power in order to meet contractual obligations
- Contrast with Classical view: money as a means of transaction. Why hold money?

“Money, it is well known, serves two principal purposes. By acting as a money of account it facilitates exchange without its being necessary that it should ever itself come into the picture as a substantive object. In this respect it is a convenience which is devoid of significance or real influence. In the second place, it is a store of wealth. So we are told, without a smile on the face. But in the world of the classical economy, what an insane use to put it! For it is a recognized characteristic of money as a store of wealth that it is barren; whereas practically every other form of storing wealth yields some interest or profit. Why should anyone outside a lunatic asylum wish to use money as a store of wealth?” (Keynes, 1937, “The General Theory of Employment”, QJE)

Liquidity Preference

- Classical view: investment and saving equalised by rate of interest; Say's Law; QTM; money as a “veil”
- Liquidity preference = choice between holding money and lending money (bonds in GT)
- Money rate of interest determined by saving (consumption function) **and** by relative demands for liquidity (money) and yield (bonds)

Investment

- Investment determined by (unstable) expectations and rate of interest (on borrowed money)
- Marginal Efficiency of Capital (MEC) = Businessmen compare cost of financing (interest rate) with expected return (yield)
- **Intended saving** not equal to **intended investment.**

Summary so far...

- Money to deal with uncertainty (**liquidity preference**); not just means of transaction
- Interest rate determined by saving **and** liquidity preference (**saving** and portfolio decision)
- Investment determined by expectations (**uncertainty**) **and** rate of interest (**investment** decision)
- These decisions made by different actors: may not lead to compatible outcomes... S not equal I !

Endogenous money

- So far, considered money **demand** (for saving)
- What about money **supply**? What determines quantity of money?
- Classical view. Quantity Theory of Money: money supply **exogeneous** = determined by monetary authority
- post-Keynesian view: money supply **endogenous** = monetary authority accommodates demand
- Central bank sets **interest rate** not **quantity of money**.

“Inside” and “outside” money

- **Inside money:** bank **deposits** - liabilities of commercial/private banks
- **Outside money:** cash and **reserves** – liabilities of central bank/monetary authority
- Central bank sets rate of interest on **outside money**, supplies **reserves**
- What determines rate of interest on **inside money**? Debate within PK econ: **horizontalism** vs **structuralism**.

Loans create deposits

- Banks supply inside money in response to demand: new **loans** made by commercial banks create new **deposits/money**
- Alternative mechanism to borrowing directly from **savers** (i.e. bond finance)
- New bank **loans** -> increased investment -> increased output -> increased savings: **deposits**

Minsky: Financial Instability

“speculation cannot be avoided— to decide is to place a bet”
(Minsky, 1974, “John Maynard Keynes”)

- General Theory was (incorrectly) interpreted as a theory of short-run “equilibria”.
- Minsky argues that correct interpretation is one of **cycles**.
- Missing link in *General Theory* is **finance**.
- Economic agents all operate balance sheets.
- For firms’ investment, distinction between **internal** finance (retained earnings) and **external** finance (borrowing)

Sequence of Minsky cycle

- Lenders' and borrowers' risk varies (uncertainty!)
- Expectations change over the course over the cycle: stability breeds instability
- Increasing leverage leads to greater cash commitments (interest payments) relative to cash income (investment yields)
- Classification of financial positions:
 - Hedge
 - Speculative
 - Ponzi
- Natural progression through stages leads to inevitable recurrence of crises

Money and the state

- Crises can arise from **uncertainty**: extreme **liquidity preference**
- Central bank should act as lender of last resort
 - To commercial banks
 - To support government debt markets
- But limits to **monetary policy** in post-Keynesian analysis: primacy of fiscal policy over monetary policy
- Central banks can finance fiscal expansion without inflation

PK compared to mainstream

- Monetarism: central bank controls “inside” money directly via credit multiplier
- Money supply determines prices -> CB should use reserve supply as instrument to target monetary aggregates
- Shift to “new consensus” macro
 - Wicksellian two-interest rate system
 - Money as pure unit of account
 - Money endogenous “by default” (Lavoie)
 - Essentially monetarist conclusions, but instrument has changed.

Goodhart's Law: "*As soon as the government attempts to regulate any particular set of financial assets, these become unreliable as indicators of economic trends.*"

"It is important, however, to distinguish between money and monetary policy: Monetary policy affects real activity in the short run purely through its effect on market interest rates...Thus, while monetary policy is central in these models, money per se plays no role other than to provide a unit of account."(Gali & Gertler, 2007, pp. 28–29)

Horizontalism/Structuralism

- Horizontalism argues that CB does not determine any quantities; “exogenous” variable is rate of interest on reserves
- Structuralist critique:
 - Central bank may “lean against wind”
 - Liquidity preference of banks
 - Credit rationing based on liquidity of borrowers

Kalecki

- Macroeconomic “reflux” theory of money
 - $S = I$
 - $S = S_H + SF$
 - $SF = I - S_H$
- *“Capitalists get what they spend and workers spend what they get”*
- *“[I]f additional investment is financed by bank credit, the spending of the amounts in question will cause equal amounts of saved profits to accumulate as bank deposits.”* (Kalecki, [1954] 1965)

Modern Money Theory

- State Money/Chartalism
- Taxes drive money
- Fiscal deficits irrelevant
- Bond issuance manages liquidity: not a tool for borrowing
- Taxes don't finance government spending: required for determination of legal tender
- Policy conclusion: Functional Finance

Comparison with Behavioural Finance

- Behavioural Finance
 - Introduction of “irrationality”, psychological phenomena
 - Heuristics, framing, loss aversion; Prospect theory (Kahneman and Tversky;)
 - Explains “excess” volatility and large swings in asset prices
- Critique
 - Maintains ergodic framework; psychological phenomena as add-ons
 - Maintains conception of “fundamental”; long-run values
 - Ultimately maintains rationality (to align with fundamental value)
 - Expectations reactive rather than creative
 - Individualistic theory of expectations formation: methodological individualism
 - PK inherently social (conventions etc.)

Policy

- Inherent instability of markets requires state intervention in markets
 - Financial market regulation to reduce endogenous instability (not black swans)
 - Funding government expenditures
 - CB funding government deficits
- Rejection of inflation targeting
 - Inflation not a monetary variable
 - Money not neutral: CB has role in output, employment etc.
- Limits of Monetary policy
 - endogenous money = demand determined.
 - liquidity
 - important role of fiscal policy

Further Reading

- Keynes, J.M., 1936, *General Theory*, Chapter 13
- Minsky, H.P., 1974, *John Maynard Keynes*, Chapters 3 and 4
- Lavoie, M., 1992, *Foundations of post-Keynesian Analysis*, Chapter 4
- Moore, B., 2001, “Endogenous Money”, in John King (ed.), *The Elgar Companion to Post Keynesian Economics*
- Graziani, A., 2003, *The Monetary Theory of Production*.