PKES/PERG Introductory Workshop
A Monetary Theory of Production

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A Monetary Theory Of Production

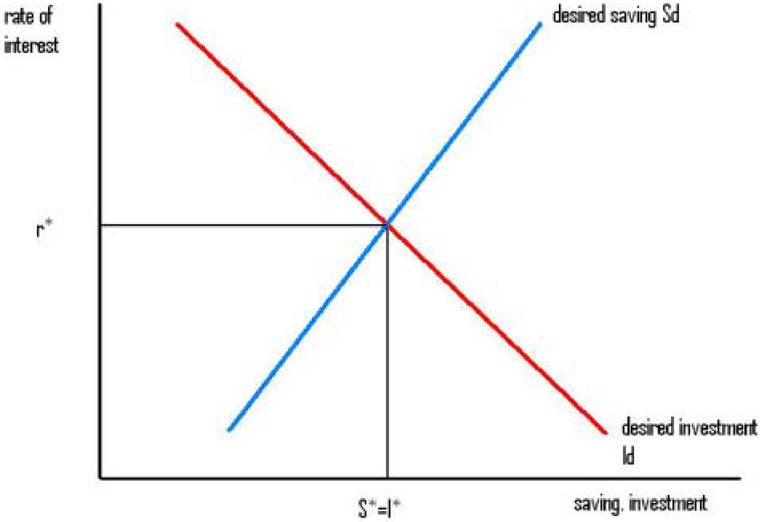
In my opinion the main reason why the problem of crises is unsolved, or at any rate why this theory is so unsatisfactory, is to be found in the lack of what might be termed a monetary theory of production.
The distinction which is normally made between a barter economy and a monetary economy depends upon the employment of money as a convenient means of effecting exchanges — as an instrument of great convenience, but transitory and neutral in its effect.
…It is not supposed to affect the essential nature of the transaction from being, in the minds of those making it, one between real things, or to modify the motives and decisions of the parties to it. Money, that is to say, is employed, but is treated as being in some sense neutral.

J. M. Keynes, 1933

Money in (heterodox) economics

- Money matters; it is not a veil over real transactions
- Banks, financial systems and structures matter.
- Monetary analysis didn't start with Keynes: Classical political economy; Marx; Wicksell; Hayek; Dennis Robertson, Schumpeter and others.
- But important contributions from Keynes and his followers
- Emphasis on time, uncertainty, history, institutional structure
- No single heterodox or Post Keynesian theory of money; debates within PK econ and with other schools

(No) Money in neoclassical economics



What is money?

- Debates about
  - Credit versus commodity
  - Historical origins
  - Role of the state
- One simple way to define money is by function:
  - Unit of account
  - Store of value
  - Means of payment

"What performs the service of money is money" (Schumpeter, Treatise on Money, p. 244)

Keynes

- *Treatise on Money* (1931)
  - **Means of payment**
  - Creation of credit money by banks
  - “Endogenous money”
  - Also Wicksell, Hayek, Schumpeter and others
- *General Theory* (1936)
  - **Store of value**
  - Uncertainty
  - Liquidity preference
  - Underemployment equilibrium
  - Motives: precautionary, transactions and speculative
- “1937 papers” (1937)
  - Added the ‘finance motive’ - back to **means of payment**

Fundamental uncertainty

- Originates with Keynes' theory of probability: *Treatise on Probability*, 1921
- Economic systems are "non-ergodic"
- Distinction between sampling values from a known probability distribution and an intrinsically unknowable future
- Risk versus uncertainty
- So how do people form expectations and decide on actions? Conventions and "animal spirits"
- Important implications for decision-making on consumption, saving and investment

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 in the *General Theory*

- A way to cope with **uncertainty**
- Liquid **store of value**
- Theory of **liquidity preference**
- Greater uncertainty $\rightarrow$ increased demand for money
- Compare with (neo)classical view: why would an optimising agent hold a store of value with no return?

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 with to use money as a store of wealth?***

— Keynes, "The General Theory of Employment" (1937)

Liquidity preference

- Classical view: investment and saving equalised by the rate of interest; Say's Law; Quantity Theory of Money;
- Keynes overturns this real theory of the rate of interest
- Liquidity preference: choice between holding money (liquid) and other assets (illiquid)
- Rate of interest determined not only by **saving** decisions but also by **liquidity preference**
- Increase in uncertainty $\rightarrow$ increase in demand for money $\rightarrow$ increase in the rate of interest
- Can be counteracted by government action to increase the supply of money

Endogenous Money

- Analysis in the *General Theory appears* to rely on the assumption of a fixed, **exogenous** money supply
- Not the case in the *Treatise on Money* and 1937 papers.
- Money as **means of payment** is **endogenously** created by the private banking system
- Access to money provides a pre-emptive strike on the resources of society — Keynes' "finance motive"

> *The process by which banks create money is so simple the mind is repelled. With something so important, a deeper mystery seems only decent.*

— J. K. Galbraith, *Money: Whence it came, where it went* (1975)

“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
- Commercial banks set rate of interest on inside money, supply deposits
- What determines rates of interest and willingness to supply in each case? Debate within PK econ: **horizontalism** vs **structuralism**.
- Money is **hierachical**: what looks like **money** (means of payment) at one level looks like **credit** at another
- Households and firms settle using **bank deposits**; banks settle using **central bank reserves**;

Endogenous money continued

- Loans create deposits
- A decision to **save or lend** by the **ultimate creditor** is **not required** for borrowing to take place
- Firms borrowing to invest don't need to issue bonds – can escape liquidity preference of households
- Investment causes saving
- New bank lending → new deposits → spending on new capital investment → increased savings
- What if new bank lending isn't used for capital investment but for mortgage lending or consumption credit?

Finance

- *General Theory* interpreted as a theory of short run (underemployment) equilibrium.
- Uses an (incomplete) mixture of **stocks** (money supply, bonds) and **flows** (consumption, saving, investment).
- **Minsky**: this interpretation is **incorrect**. *GT* was incomplete but points towards a theory of **business cycles**.
- Missing link is **finance**.

Minsky

- All economic agents operate as cash in, cash out units.
- Importance of balance sheets:
  - Past financial decions lead to current cash obligations.
  - Current financial decisions lead to future cash obligations.
  - But the future is unknowable: **uncertainty**
- "Speculation cannot be avoided – to decide is to take a bet" Minsky, *John Maynard Keynes* (1974)
- Financial structures and processes matter.
- These are **institutionally and historically specific**. (See also: Chick, "Stages of Banking")
- Minsky develops a theory of financially-driven cycles
- Money has central role. Banks finance **financial speculation**; **Liquidity preference** can cause financial collapse

Comparision with conventional wisdom

- Monetarism: central bank controls “inside” money directly because of table multiplier relationship with “outside” money.
- In the long run, output and employment are determined by the supply side
- The economy tends towards full employment equilibrium in the long-run
- From QTM, money supply determines prices
- CB should adjust quantity of reserves (outside money) in order to target monetary aggregates and therefore inflation.

Comparision with conventional wisdom

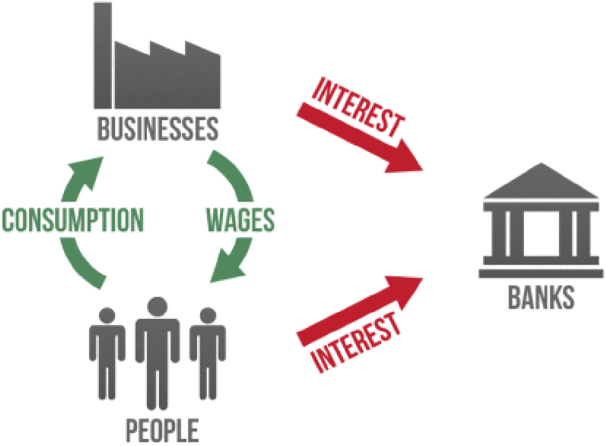
- New Consensus replaced monetarism but retained many key assumptions and conclusions
- In the long run, output and employment are determined by the supply side
- The economy tends towards full employment equilibrium in the long-run
- Central bank sets **price of money** - rate of interest
- This is actually a **real** rate of interest. There is **no money** in the models.
- "True" (natural) rate of interest determined in standard neoclassical way.
- Money, banks, credit, finance etc. all **absent** from workhorse DSGE model.
- Assumed irrelevant because of **arbitrage** by rational actors in markets. Can "safely" be ignored.

Heterodox monetary theory now

- Many of key assertions shown to be correct.
- Bank of England now accepts the endogenous money view.
- Widely accepted that financial structure matters.
- Important implications and applications:
  - Quantitative easing etc
  - Secular stagnation
  - Income and wealth inequality
  - Household debt
  - Cross-border capital flows
  - Shadow banking system

The Chicago Plan

- 1933 proposal to outlaw full-reserve banking.
- Supported by Irving Fisher, Henry Simons, Frank Knight and others.
- Similar proposals recently resurrected by Positive Money and others



A more accurate picture

A Monetary Theory Of Production

Accordingly I believe that the next task is to work out in some detail a monetary theory of production, to supplement the real-exchange theories which we already possess. At any rate that is the task on which I am now occupying myself, in some confidence that I am not wasting my time.

J. M. Keynes, 1933