Keynesian Macroeconomics for the 21st Century
Part 1: Foundations

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Reflections and Motivation

- Macroeconomics for 21st century reality
  - My professional motivation for past 40 years
- Introduction to SF: an unlikely radical …
  - My dissertation path
  - Keynesian macro passes reality test
  - Temptations to deviate—but always returned "home"
- Theory: reject strict "positivist" approach
  - Realistic behavioral assumptions matter
- Evidence broadly conceived
  - Formal econometrics
  - Evidence-based historical analysis

Overview of Three Lectures

- 1. Foundations
  - Core Keynesian idea: failure of Say's Law and paradox of thrift
  - Theory of the interest rate
  - Role of nominal adjustment
  - Limits of monetary policy
  - Intrinsic Keynesian macro: demand-led economy "beyond the short run"
- 2. Sowing the seeds of crisis
  - Sketch of Hyman Minsky financial instability theory
  - US household finance and demand dynamics: 1980s to 2006
- 3. Secular stagnation in aftermath of Great Recession
  - Central role of rising inequality

Source of Ideas—Acknowledgement

- Teaching over decades
  - Macro framework to convey reality to my students
  - Student feedback to ideas and exposition
- Links to my research
  - One objective of series: share how ideas develop over decades
- Co-authorship of Barry Cynamon (former student)
- Generous support from INET
- Slides and associated readings available here:

  https://pages.wustl.edu/fazz/courses/inet-ysi-lectures-readings

Part 1

FOUNDATIONS FOR KEYNESIAN MACRO

Aggregate Supply

- Production requires supply
  - Resources: natural, labor, accumulated capital
  - Technology: process that transforms resources into output
- "Robinson Crusoe" metaphor for new classical macro
  - Representative agent; all that matters is supply
  - Robinson's preferences (demand?) matters for supply-side reasons <u>only</u>
- Concept of potential output (Y*)

Aggregate Demand

- The real world of market economies is not a representative agent
  - We're in Scotland: Adam Smith and the division of labor
- Supply necessary but not sufficient
- Most simple Keynesian idea: output that can't be sold won't be produced
  - Qualification: inventory adjustment and sales expectations
  - Majority of economy is services: demand creates production

Will Y* Be Sold?

- Say's Law: Supply creates its own demand
  - Foundation for new classical macro (often implicit)
- Ricardo: motivation for production is consumption
  - Micro misallocation, but no shortage of aggregate demand (AD)
  - Problem: saving—production does not motivate current demand
- Non-monetary economy
  - Saving is investment (the "corn model")
  - No coordination of saving and investment necessary
- Money and saving: possible AD shortage

Loanable Funds Market and the Interest Rate

- Interest rate adjustment
  - Representative demand shock: fall in consumption (C)
  - Accounting implies rise in saving (S) for given income (Y)
  - “Loanable funds” increase and interest rate (r) falls
  - r↓ => C↑ & investment (I)↑ until demand restored to Y*
  - Simple diagram: interest rate adjustment mediates any spending shock to close “gap” in demand
- Loanable funds theory of the interest rate
- Low spending never constrains production / employment
  - Why worry about low consumer spending?

Demand Effects for Supply-Side Reasons (**)

- Examples
- C$\downarrow$ => S$\uparrow$ => Invest$\uparrow$ => K$\uparrow$ => Y*$\uparrow$
- Government spending $\uparrow$ => r$\uparrow$
  - Choke off excess demand
  - Intertemporal substitution in labor supply => Y*$\uparrow$
  - A positive fiscal "multiplier"
- Money is neutral (although not necessarily finance)

Paradox of Thrift and Keynesian Macro

- Basic accounting: spending => sales => income
- Spending creates income; saving destroys income
  - Simple service sector example
  - Direct effects of demand on production and income
- Problem with simple loanable funds diagram: cannot analyze aggregate changes in S holding Y constant.
  - Logical fallacy
  - Keynes General Theory, chapter 14

Very Simple Paradox of Thrift Model (**)

- Three agents: X, Y, and Z arranged in a circle
  - Y buys \$100 of services from X, Z from Y, X from Z
  - Each agent holds \$10 of cash from prior activity
  - Today's consumption depends on yesterday's income
- Y decides to save extra \$5
  - Y's cash rises to \$15; +\$5 saving is realized <u>for Y alone</u>
  - Y's extra saving <u>destroys</u> \$5 of income for X
  - Given X's consumption of \$100, X saving is -\$5
- <u>Aggregate saving unchanged</u> (Y: +\$5 and X: -\$5)
  - Allocation of aggregate saving changes
  - Individual thrift raises individual saving, but not aggregate saving => <u>paradox</u>

POT and the Interest Rate Theory

- No aggregate excess supply of S can result from individual decisions to save more (POT)
- No market pressure on r when consumption falls
  - Income destruction eliminates excess supply of saving
- Irrelevance of loanable funds diagram
  - S never shifts; Y adjusts
- Fundamental fallacy in classical / new classical adjustment process
- Failure of Say's Law for monetary economies

Keynesian Macroeconomics

- Demand matters!
  - Output and income fall when demand falls
  - No automatic r adjustment to restore AD to Y*
  - <u>Income</u> adjusts to equate saving and investment, <u>not r</u>
- Basic logical result, not directly tied to nominal rigidity
- Symmetric effect of positive demand shocks if Y < Y*

Interest Rates—Asset Prices

- Loanable funds theory has deep logical flaws
- Asset prices determined by supply and demand for asset stocks: portfolio balance
- Liquidity preference in the broad sense
- “Money” one of the assets
- Simple version: money and bonds; interest rate determines relative price

Role of Nominal Stickiness

- Demand always matters: Keynesian results are "intrinsic" to monetary economies
  - Does not require nominal rigidity
- But reasonable to ask how demand responds to nominal adjustment.
  - Will wage and price adjustment push AD to Y*?
- Slope of "AD Curve:" Not obvious that P↓ => AD↑
  - Micro income and substitution effects do not apply
- Other channels?

Neoclassical Synthesis

- $Y < Y^*$ => unemployment => wages$\downarrow$ => prices$\downarrow$
  - Lower prices reduce demand for nominal monetary transaction balances
  - Substitute bonds for money => bond prices$\uparrow$ => r$\downarrow$
  - Falling r=> higher AD (consumption and investment)
  - Continues until Y converges to Y^*
- Transition from mainstream Keynesian short run to classical long run : P$\downarrow$ => M/P$\uparrow$ => r$\downarrow$ => AD$\uparrow$
- Adjustment slow if wages (or prices) are slow to adjust
- Keynesian results relevant only in the short run of nominal rigidity

Critique of Conventional Textbook Story

- Is neoclassical synthesis story what really happens?
  - Dynamics not observed; motivation for research
- Deflation and disinflation ineffective in modern economies (Fisher, Keynes, Minsky)
  - Falling prices raise threat of default (Caskey and Fazzari, 1987)
  - Redistribution against debtors (Tobin, 1975)
  - Destabilizing expectations (DeLong & Summers, 1986)
- Deflation reduces demand; price adjustment likely destabilizing
- No empirical support for nominal adjustment story
  - Hard empirical problem, but central issue deserves attention
  - Historical analysis of deflations
  - Behavior of central banks

Monetary Policy to Restore Y*?

- New Keynesian macro: rely on wise policy (more realistic)
  - Cut interest rates until AD -> Y*
- But conventional interest elasticities low
  - Misleading consumption Euler equations in DSGE models
- Asset prices and wealth effects small
  - Skewed wealth distribution
- When monetary policy works it likely creates unstable financial dynamics (Minsky)
  - US housing; something I missed until fairly recently
- Outside of bubbles, zero bound likely to bind; “natural rate of interest” likely irrelevant
  - Suggested by recent history

Motivation for Alternative Theory

- Sales required for production in any model
- Failure of Say's Law + ineffectiveness of nominal adjustment or monetary policy to push AD to Y*
- Include demand from the beginning, as an "intrinsic" aspect of the model
- Foreshadow empirical case: neither the new classical or new Keynesian paradigms can reconcile recent secular stagnation realities
  - U.S. focus, but clearly relevant to Europe, Japan
- Questions and discussion …