ADVERSE SELECTION AND THE RATIONAL EXPECTATIONS CRITIQUE OF THE ABCT

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Introduction

- The rational expectations critique
  - The theory doesn't explain how otherwise smart entrepreneurs are so easily deceived by publicly known monetary policy.
  - Caplan (1997), Cowen (1997), Tullock (1988, 1989) and Wagner (1999).
  - If entrepreneurs are rational, then they won't bid up prices of factors of production.

Introduction

- The rational expectation critique answer
  - Expectations are heterogeneous due to *a*rational components
    - (Carilli & Dempster 2001; Evans & Baxendale 2008; Callahan & Horwitz 2010).
  - Expectations are subjective, not just mechanical.
  - Expectations are neither completely exogenous nor endogenous.
  - If the market is a complex phenomenon, where does the correct model of the world come from?

The adverse selection problem

- Assume a loose monetary policy.
- Assume two types of entrepreneurs: *savvy* and *naïve* (Callahan & Horwitz 2010).
  - *Savvy*: Knows that the interest rate is below the equilibrium level.
  - *Naïve*: Thinks that the interest rate is at the equilibrium level.

The Adverse Selection Problem

- Since *savvy* and *naïve* entrepreneurs have different expectations, they value marginal projects at different discount rates.
- Let *ROIC* be the return over invested capital.
- Let *c* be the discount rate.
- Let *K* be the financial capital.
- Assume (for now), that both group of entrepreneurs are valuing the same project.

The Adverse Selection Problem

- Then:
  - The market value added (MVA) of the project is:
  - $$MVA_j = \sum_{t=1}^{\infty} \frac{\left(ROIC_t - c_j\right)K}{\left(1+c_j\right)^t}, \quad j = \{s, n\}$$
  - Since $c_n < c_s$ then $MVA_n > MVA_s$.

The Adverse Selection Problem

- Therefore, the *naïve* entrepreneurs is willing to assign a larger amount of financial capital than the *savvy* to secure the required capital goods and factors of production.
- The *naïve* entrepreneur drives the *savvy* out of the market.

- $\frac{K_n}{K_s}$ increases in relative terms.

Adverse Selection Problem and the Capital Structure

- The problem is not *who* carries the investment, but *what type* investment is carried out.
- Long-term and capital intensive projects are more sensitive to discount rates.
  - MVA (big t) > MVA (small t)
  - MVA (big K) > MVA (small K)
  - In relative terms, $\frac{MVA\left(+roundabout\right)}{MVA\left(-roundabout\right)}$ increases

Adverse Selection Problem and the Capital Structure

- Since the *naïve* group bids up the prices of production, what should the *savvy* group do?
  - Step out of the market.
  - Play *naïve* and try to withdraw in time.
    - Mises (1955, pp. 83-84) and Carilli & Dempster (2001).
- Then, the amount of *naïve* players/strategies increase with respect to that of *savvy* players/strategies.

From One Business Cycle to Repeated Business Cycles

- If during the boom *naïve* entrepreneurs drive out of the market the *savvy* entrepreneurs, then the opposite occurs during the bust.
- Either *naïve* entrepreneurs learn from their mistake and become *savvy*, or they leave the market.
- Shouldn't loose monetary policy loose its effect if ABCT business cycles are repeated? (Mises 1943; Hayek 1931, pp. 83-85).

From One Business Cycle to Repeated Business Cycles

- Reasons why it may not:
  1. Monetary policy does not happen in a vacuum, but in a context of changing market conditions that need to be interpreted and forecasted. A *savvy* entrepreneur may become *naïve* under new market conditions (ie. going from gold standard to fiat money).

From One Business Cycle to Repeated Business Cycles

- Reasons why it may not:
  2. Turnaround in the population of entrepreneurs. Since *naïve* entrepreneurs consider themselves to be *savvy*, they teach the "*naïve knowledge*" to the newcomers, who also consider themselves *savvy*.
  3. A correct pattern prediction can fail on the microeconomic forecasts. Which markets are actually facing the stronger booms.

Why adverse selection does not happen without loose monetary policy

- Shouldn't the *naïve* group drive out of the market the *savvy* group even if interest rates are the natural level?
- For the adverse selection to take place, the *naïve* group does not only need to be mistaken, it also needs the *central bank to finance* their mistaken expectations.

- Thanks for your time.

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