

New Keynesian Theory

Graduate Macroeconomics I
ECON 309 – Cunningham

New Classical View of Keynesian Economics

- **“Failure on a grand scale.”**
- **Made up of ad hoc assumptions, not built on a strong foundation of rational agents.**
- **Must assume rational, optimizing agents.**
- **Must assume that markets clear.**
- **Keynesians do not explicitly handle expectations, and expectations have been shown to be critically important.**
- **Have not given explicit structural explanations of wage stickiness.**
- **How can you explain persistence in business cycles?**

New Keynesian Response (1)

- **Persistence:**

- **There have been and are persistent and substantial deviations from full employment. There is nothing to the persistence question.**
 - **Unemployment in Great Britain was greater than or equal to 10% from 1923-1939.**
 - **U.S. Great Depression, unemployment was greater than or equal to 14% for 10 years.**

New Keynesian Response (2)

- **Extreme Informational Assumptions**
 - **NK's accept that adaptive expectations are ad hoc and unrealistic**
 - **Unconstrained REH implies unrealistically sophisticated agents**
 - **Bounded rationality**
 - **Structural impediments**

New Keynesian Economics

- **Attempts to build Keynesian arguments based upon rational expectations and microeconomic foundations.**
- **Examples:**
 - **Contracting models**
 - **Sticky price models based upon transactions cost or menu costs**
 - **Efficiency wage models**

New Keynesian Models (1)

- **Sticky Prices**

- **Menu costs and other transactions costs:**
 - It costs to change prices.
- **A firm might hold prices constant even if demand fell if the firm faced a cost to the price change.**
 - **Costs: loss of customer good will**
 - **Potential price war**
 - **Menu costs**

New Keynesian Models (2)

- **Efficiency Wage Models**

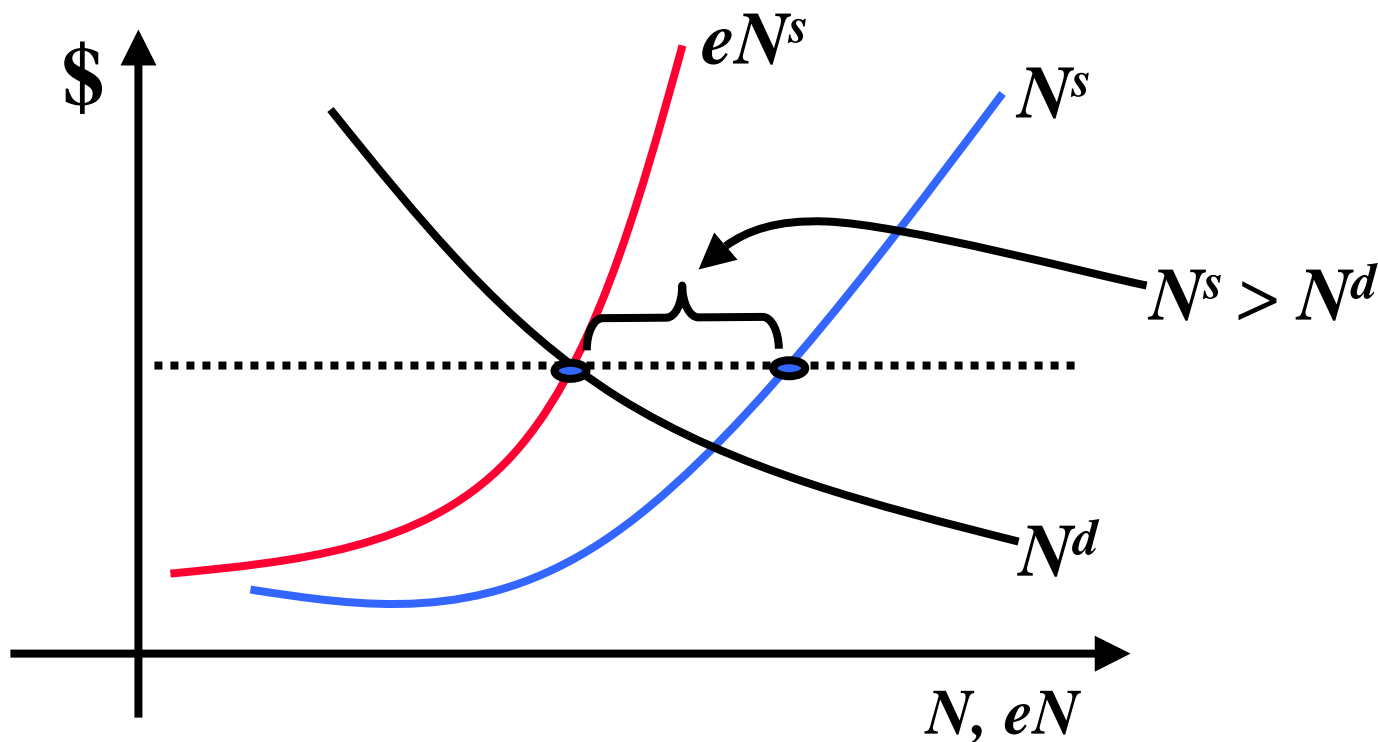
- Firms wish to buy worker effort, not their “attendance”.
- Instead of $Y = F(K, N)$, the firm really operates according to $Y = F(K, eN)$, where N is the number of workers or worker-hours, and e is the effort per worker.
- The firm does not seek to minimize the cost of labor, but rather seeks to minimize the cost per efficiency unit.

New Keynesian Models (3)

- **Efficiency Wages, continued**
 - By paying the worker more than the equilibrium wage for labor, the firm may reduce the cost per efficiency unit by reducing the costs associated with:
 - Paying supervisors (monitoring costs)
 - Hiring replacement workers when the current workers leave (turnover costs)
 - Poor worker morale.
 - This leads to:
 - Shirking models,
 - Turnover cost models, and
 - Gift exchange models.

New Keynesian Models (4)

- Efficiency wage models identify a market failure:



New Keynesian Response (5)

- **Sticky Prices**
 - **Menu costs and other transactions costs**
 - **A firm might hold prices constant even if demand fell if the firm faced a cost to the price change.**
 - **Costs: loss of customer good will**
 - **Potential price war**
 - **Menu costs**

New Keynesian Response (6)

- **Insider-Outsider Models and Hysteresis**
 - **Hysteresis: present unemployment is highly related to past unemployment.**
 - **Past unemployment causes current unemployment by turning insiders into outsiders.**
 - **Outsiders cannot exert downward force on real wages.**

The Name

- The name “**New Keynesian Theory**” was introduced by Michael Parkin (1982).
- One of the earliest uses of the term “**new-Keynesian Economics**” was in an article by Ball, Mankiw, and Romer (1988).
- “New” is used instead of “neo” to distinguish from “**Neoclassical Synthesis Keynesian Economics**” (a term used by Samuelson and others), and also to show it is the counter-argument to the New Classical Economics.

Founding Researchers

“What is New Keynesian Economics”, Gordon (1990)

- **The foundations of New Keynesian Economics are usually attributed to Stanley Fischer, Edmund Phelps, and John Taylor.**
- **The focus has been on demonstrating the microfoundations of price and wage stickiness.**

Basic Principles (1)

- **According to Gordon, sticky prices implies that real GDP is a residual, and is not determined by agents in the economy.**
- **If this is the case, then firms optimize by setting prices, and accept quantities (production levels) as given.**
- **In the neoclassical and new classical theories, the firms are price takers and optimize by setting quantities (production levels).**

Basic Principles (2)

- **Price and wage stickiness emerges from microeconomics:**
 - Technology of transactions
 - Heterogeneity of goods and factor inputs
 - Imperfect competition
 - Imperfect information
 - Imperfect capital markets
- **These core elements remove any incentive for individual agents to focus on nominal demand in price-setting.**
- **New Keynesian Economics is about macroeconomic externalities of individual decisions and coordination failures inherent in free market economies.**
- **Note that Gordon omits any topics that are not at the heart of the debate between the New Keynesian and New Classical economists.**

Demand-side contributions

- **Credit rationing** as a source of fluctuations in commodity demand and as a channel for monetary policy. (Blanchard and Fischer, 1989)
- **Feedback** from price stickiness to aggregate nominal demand. (Taylor, Summers)
- How the monetary system interferes with the **coordination** of intertemporal choices.

What are Keynesians?

Greenwald and Stiglitz, JEP 1993

- **The authors claim that Keynesians, new and old, can be identified viz a viz members of other schools by their belief in three propositions:**
 - **An excess supply of labor may exist, sometimes for prolonged periods, at the prevailing level of real wages.**
 - **The aggregate level of economic activity fluctuates widely—more widely than can be explained by short-run changes in technology, tastes, or demographics.**
 - **Money matters, at least most of the time, although monetary policy may be ineffective at times.**
- **A lot of this boils down to the proposition that at times quantities adjust rather than prices to bring about cash-flow equilibria.**

Two Strands of NK Research

- 1. Nominal price rigidities are the fundamental ways in which real-world economies differ from Walrasian Arrow-Debreu economies. Most of the work here focuses on explaining sources of rigidity.**
 - Because of these rigidities, the classical dichotomy breaks down, and policy can be effective.
- 2. Even if prices and wages were perfectly flexible, output would still be volatile. This flexibility is not the central problem. In fact, more flexibility might make things worse. This approach focuses on market failures.**
 - Thus monetary policy has real effects even when prices and wages are perfectly flexible.

Two Strands (Continued)

- **The flex-price NK school argues that:**
 - Natural economic forces can magnify shocks that seems small, and
 - Sticky prices and wages may actually reduce the magnitude of the fluctuations (as Keynes argued).
- **This makes this group less interested in the source of the shocks (unlike the RBC theorists), and more interested in the mechanisms by which they propagate, are magnified or diminished.**

Three Ingredients to the Flex-price Approach

- 1. Risk-averse Firms.**
- 2. A credit allocation mechanism in which credit allocating, risk-averse banks play a central role.**
- 3. New labor market theories, like insider-outsider and efficiency-wage theories, play a role.**
 - 1 and 2 explain the magnification of shocks in the economy.**
 - 3 explains why the shocks may link to unemployment.**

Risk-aversiveness

- **There are imperfections in the equity market.**
 - With equity, firms **share** risk with the equity holders.
 - With debt, firms **alone** face the risk.
 - If equity finance is not available to firms, firms will naturally be risk-averse.
 - Firms do not typically finance a large percentage of their investment with debt.
Why?
 - Equity sales signals future poor performance?

Risk-aversiveness (2)

- **How can firms manage to sell equity at all?**
 - Owners of firms are risk-averse and do not always have perfect information about their firms futures.
 - Equity sales diversifies risk.
- **Negatives to Investors**
 - Negative signal about future performance. The worst, most over-valued firms are the most willing to sell their shares.
 - Principal-agent problem.

How does risk-aversiveness affect the firm?

- **The firm will be sensitive to any risky undertaking.**
 - **Production is a risky speculation.**
 - **Firms are concerned about the consequences of any actions they might take (instrument uncertainty), and therefore the bigger the action the bigger the perceived potential risk.**
 - **Firms know more about the current situation than they will about any potential situation. Hence they will tend to avoid (big) changes.**
 - **Firms will adopt a portfolio approach to risk management.**

Risk-averse firms

- **If the demand curve shifts, the firm must determine what to do. The risk-averse firm may choose to adjust quantities rather than prices as a response to risk.**
- **In a recession, the aggregate supply curve may shift dramatically. The risk of production increases dramatically as the firms' willingness to accept risk declines dramatically.**
- **This may lead to magnified responses in AS.**

Another example

- A decrease in export prices reduces exporters' net worth.
- The exporters reduce their output, as well as their demand for factors.
- Prices fall in the factor sectors, affecting factor firms' profitability and liquidity, and these firms' purchases of factors and capital.
- In response to the increased risk, firms reduce inventories since holding inventory represents a risk. (This explains a long-standing mystery about why inventories don't smooth output fluctuations.)
- This further reduces output.
- NOTE: There is no need to discuss stickiness of prices or wages here!