

# Labor Markets and Adaptive Expectations: Estimating a New Keynesian Model with Learning and Unemployment

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# Research Project Purpose and Outcomes

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## Purpose

Estimate the effects adaptive expectations have on unemployment dynamics in the United States.

## Outcome: Answers to the following questions

- 1 Do expectations influence how long unemployment lasts, and how severe the unemployment problem becomes?
- 2 Do expectations help explain why some unemployment episodes are brief, while others are long?
- 3 Can government policy effectively reduce unemployment? Under what conditions is this more likely?
- 4 What economic shocks are responsible for U.S. business cycle fluctuations?

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# Expectations

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## Example of Destabilizing Effect of Expectations

- ❶ Suppose consumers expect unemployment rate to rise.
- ❷ As a precautionary measure, many consumers save more, spend less.
- ❸ Lower spending leads to lower sales, revenues, profits.
- ❹ Businesses cut production, cut employees
- ❺ Unemployment does rise (expectations self-fulfilling, destabilizing)

## Expectation Frameworks

- I will use least-squares learning (adaptive expectations)
- Rational expectations is the typical framework in the macroeconomics literature.



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# Literature: Least Squares Learning

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## Prolonged Inflation and Volatility

- Learning can lead to prolonged periods of inflation (Orphanides and Williams, 2005a)
- Learning explains the run-up of inflation and volatility in the 1970s (Orphanides and Williams, 2005b), ...
- ... and subsequent stability starting in mid-1980s (Primiceri, 2006)

## Business Cycle Dynamics

- Learning explains prolonged economic downturns and larger bubbles (Eusepi and Preston, 2011)
- Learning explains different-sized economic downturns and upswings (Milani, 2009)
- Expectations significant cause for business cycles (Milani, 2011)

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# Need for More Research: Unemployment

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## Aforementioned papers ignore unemployment

- Expectations about unemployment influence economy.
- Including data on unemployment can affect results (Gertler, Sala, and Trigari, 2008)
- Current (very prolonged) unemployment situation.

## Existing Unemployment (Macroeconometrics) Literature

- Blanchard and Gali (2010): Pioneer work modeling unemployment in macroeconometrics literature.
- Existing work focuses on monetary policy (Thomas, 2008; Blanchard and Gali, 2010)
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## Personal Growth

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- Part of a research program I am starting to build.
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