

Discussion of “How Much Inflation is
Necessary to Grease the Wheels?”

by Kim and Ruge-Murcia

Emi Nakamura

Federal Reserve Bank of NY and Columbia University

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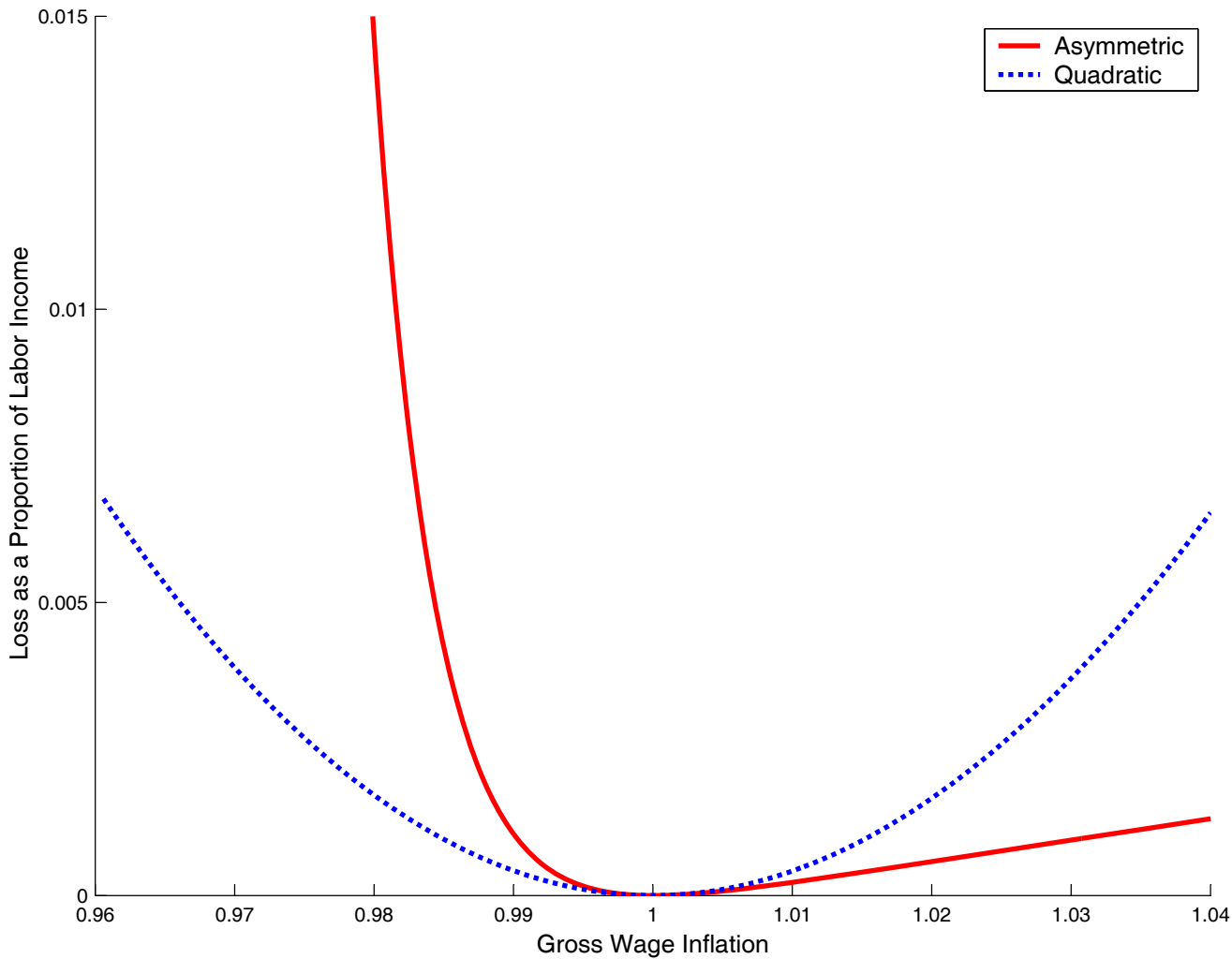
Background

- Evidence on Wage Rigidity
 - Panel Data : Nominal wage change distribution is asymmetric and has spike at zero
 - Survey evidence: Workers dislike nominal wage decreases
- Theoretical implications
 - Tobin: Inflation speeds the decline of real wages following an adverse shock
 - Akerlof, Dickens and Perry: Downward rigidity interferes with the ability of some firms to make adjustments in real wages
→ higher unemployment

Paper Summary

- Sophisticated DSGE model
- Households: set wages, face “Linex” adjustment costs
- Firms: set prices, face quadratic adjustment costs
- Monetary policy: Government maximizes household welfare
- Symmetric equilibrium: All firms and households are identical

Figure 1: Adjustment Cost Functions



Paper Summary (cont'd)

- Estimation
 - Estimate parameters of model on aggregate US data using SMM
 - Parameter estimates indicate asymmetric wage adjustment costs
- Simulation: Optimal Monetary policy
 - Simulate optimal monetary policy for estimated model
 - Find 1.2% inflation in model with asymmetric wage adjustment costs
- Also study responses to shocks, higher order moments (skewness, kurtosis)

My Comments

1. Estimation of adjustment costs
2. Heterogeneity

1. Estimation of adjustment costs

- Model is estimated assuming that government follows optimal monetary policy
- Ramsey policy does not fit observed monetary policy well
 - e.g. Implies zero inflation
- Concern: Could estimation approach “hard-wire” the estimates of asymmetric adjustment costs?

Estimation approach

- SMM: variances, covariances and autocovariances of all variables
- Real wage, hours worked, real consumption per capita, price inflation, wage inflation, nominal interest rate
- Mean inflation is *not* used

Which moments matter?

- I compared fit of moments for quadratic vs. asymmetric adjustment cost models
- Most important moments: $\text{var}(c)$, $\text{cov}(c,l)$, $\text{cov}(c,w)$, $\text{autocov}(c)$, $\text{autocov}(w)$
- Not clear what identifies adjustment costs
- Important to determine to what extent asymmetric adjustment cost estimates are robust to assuming a more empirically plausible monetary policy

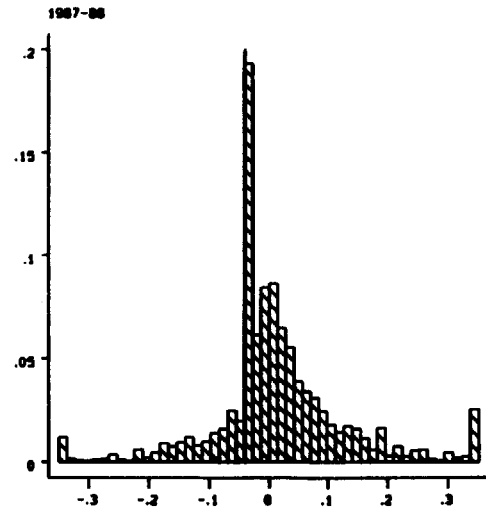
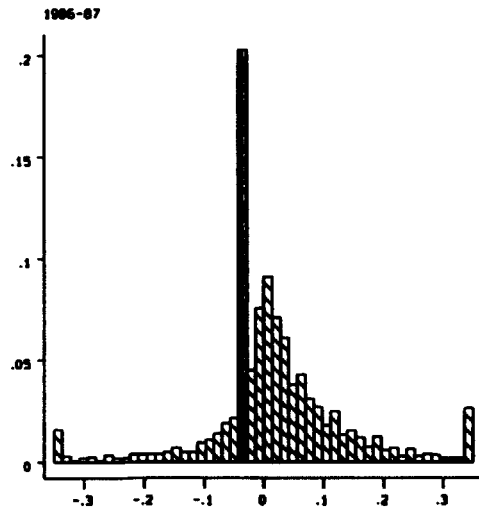
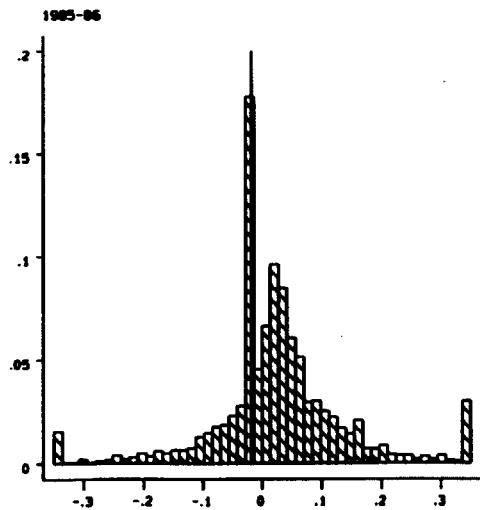
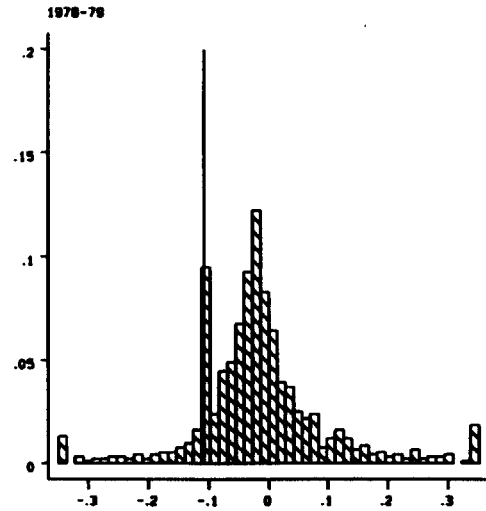
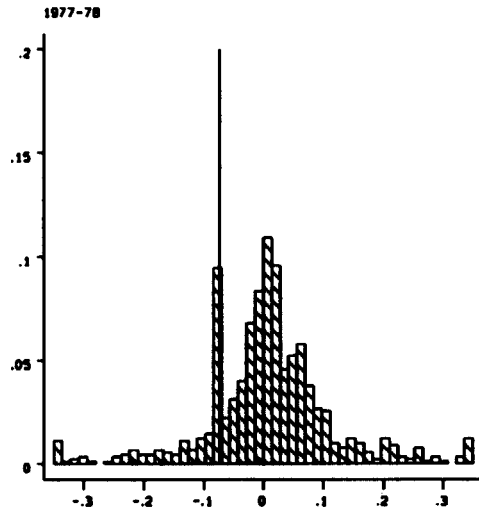
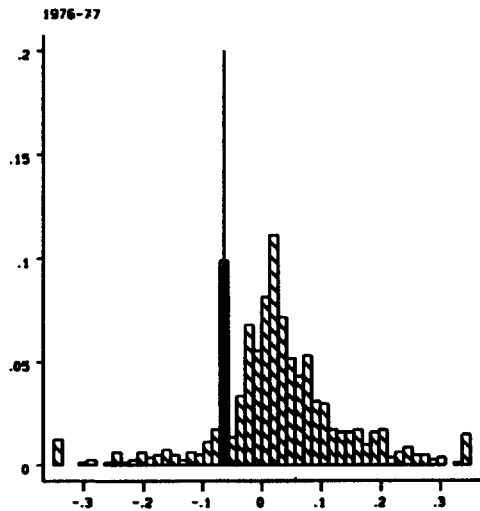
Alternative approach: Use Micro-data

- Fit moments of micro wage change distribution
 - Spike at no change
 - Wage changes below zero are “swept up” to zero

Challenges

- Time series distribution of aggregate wage changes not comparable to micro-evidence on distribution of individual wage changes
- Model implies no wage rigidity: Hard to reconcile with micro-data

Relative frequency



Price Adjustment Costs

- Firms face quadratic adjustment costs for prices
- Price adjustment costs are crucial in determining the costs of inflation
- How can we assess whether the price adjustment cost parameter is reasonable?
- Calvo model vs. menu cost model?

2. Model

Heterogeneity

- Earlier literature emphasized importance of heterogeneity
- Akerlof, Dickens and Perry: Low inflation might prevent real wages from declining in response to declining labor demand in certain industries or regions, blocking reallocation of labor
- Current paper: all workers and firms are identical
- Sector specific shocks are much larger than aggregate shocks
- Only macro shocks → Less need for wage decreases

Conclusion

- Very interesting paper
- Huge improvement on earlier literature
- Empirics: Useful to understand identification of wage and price adjustment parameters
- Model: Heterogeneity may be crucial in understanding the role of inflation in the labor market