

Discussion: “Evidence from
micro consumer prices”
Inflation Persistence Network

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Outline

1. Theories of price-setting
2. The IPN consumer prices stylized facts
 - The facts
 - Comment
 - Suggestions for future work

Models of price-setting

Goal: prices not responding to news on nominal quantities (nominal rigidities)

Two dimensions:

- a) Is changing the price charged costly?
 - physical cost: technological constraint

- b) Is observing (reacting to) news costly?
 - reaction cost: attention / information / optimization / implementation

Models of price-setting over two dimensions

		Is observing (reacting to) news costly?	
		Yes	No
Is changing the price charged costly?	Yes	Sticky prices (Taylor, Calvo)	Menu costs (Sheshinski-Weiss, DKW)
	No	Inattentiveness (Fischer, Reis, Mankiw) Rotemberg	Sticky plans (Burstein)

The stylized facts for the Euro area

Fact 1: Infrequent adjustment of prices

Support for physical costs theories

U.S. vs. Europe?

Fact 2: Heterogeneity across countries and sectors

Determinants of duration of price spells:

$$d^*(\mathbf{s}) = \sqrt{\frac{2K(\mathbf{s})}{F_t(\mathbf{s}, 0)}}.$$

$F_t(\mathbf{s}, 0)$ is the expected gap between profits with a rigid price and profits with perfect information.

$F_t(\mathbf{s}, 0)$ increases with volatility, competitiveness, and the elasticity of demand.

Fact 2: Heterogeneity across countries and sectors

Across sectors:

- Matches well
- Think of car fuel vs. theatre play
- Can investigate more systematically

Across countries:

- More mysterious
- Volatility in marginal costs or in output?

Fact 3: Sign and size of adjustment

As often up as down:

Against upward rigidity (anger) or downward rigidity (attention-grabbing)

Large adjustments:

Large idiosyncratic shocks

No statement on power of monetary policy

Individual price spells:  vs. 

Fact 4: Synchronization and staggering

Theory pushes you in opposite directions:
Strategic complementarities but need staggering

Synchronization not larger within a sector.
Some weak evidence for larger within an area

Costs of adjusting: in the firm or in the demand?

Still needs more work

Fact 5: Declining hazard function

The longer a price has been fixed for, the less likely it will adjust now

Easily accounted for by heterogeneity

Use empirical sectoral heterogeneity (assuming constant hazard within the sector) to build up aggregate hazard.

Fact 6: Determinants of frequency of adjustment

Larger outlets adjust more often

- Evidence for fixed costs of adjustment
- Larger in sales volume or in number of products being priced?

Time series variation

- a) Seasonality: time-dependent
- b) Inflation matters.

But, at adjustment date or in the past?

Fact 6: Determinants of frequency of adjustment

VAT changes

- Announced in advance
- For Belgium looked at month previous to change: found no effect. This rejects the front-loading implied by flat price paths.
- More of this: goes to the heart of the problem with these models

Monetary policy shocks