Discussion of
Hall and Rotemberg Papers

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John Taylor's Contributions
to Monetary Theory and Policy

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Taylor

- Conference description highlights three contributions of Taylor’s.
- Greatest influence on me from his specific approach to staggered wage and price setting.
- Compared to Calvo, Taylor approach has appealed to me because of
  - Implausibility of “stale tail” in Calvo approach
  - Simplicity: in nonlinear models, 2-pd Taylor is actually simpler than Calvo (depending on policy rule, no state variable).

Taylor, Hall, Rotemberg

- Taylor's approach to staggered wage and price setting has *nominal* wages and prices being allocative, set for multiple periods, and provides natural framework for studying monetary policy.

- In contrast, Hall & Rotemberg put forth interesting theories of price, wage determination where wages & prices play almost no allocative role.

- Challenging for a narrow-minded discussant!

Overview

1. Common ground in Hall, Rotemberg papers
2. Hall
   - Brief summary and comments
3. Rotemberg
   - Brief summary and comments
4. Argue that crucial elements in both papers lead naturally to thinking about endogenizing separations.

Common Themes

1. Search and matching for the labor market.
2. Deviate in novel ways from benchmarks.
3. Nice symmetry, for a discussant:
   A. Hall on prices, has similar previous work on wages
   B. Rotemberg on wages, has similar previous work on prices…

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   evidently neither one thought the other had the last word on the respective subject…

Hall : brief summary

1. Search and matching framework for the labor market *and the goods market.*
   - Households seek customer relationships just as they seek employment relationships.
   - Firms post customer openings, just as job openings.
   - Matches and separations occur for customer relationships just as for employment relationships.

endogenous

exogenous

2. Equilibrium requirement for prices and wages is simply that they lie in the bargaining set.
   - Wide range of price and wage behavior consistent with equilibrium, including *equilibrium sticky prices.*
3. Model generates interesting tradeoffs for monetary policy btw goods and product markets.

Hall not a fan of existing sticky price models

- Appealing property of model, relative to time-dep. sticky price models, is that firms not forced to sell at price at which they would rather sell zero.

  note however that state-dependent pricing models also have this appealing property

- Of his own earlier work on wages, Hall wrote (2005NBERMA): *Not a single reader of this paper has failed to point out that the demonstration that a sticky wage is an equilibrium is far from an explanation for stickiness. Many other patterns of wage movement are equilibria…The primary reason that the sticky-wage case is interesting is the general impression that wages are, in fact, quite sticky.*

- Obviously, same comment applies here with respect to prices, so consider it made.

Data and Hall’s model

- Extensive recent empirical work on individual price behavior (e.g. Bils and Klenow).
- “Old” sticky price literature using that work to calibrate, evaluate models.
- Hall’s approach has indeterminate equilibrium prices, but the range of indeterminacy is not completely unrestricted.
- Could the micro data be used to evaluate this approach? Are there conventions for payments between buyers and sellers such that price behavior we observe lies in the bargaining set?

Policy in Hall's model

- In discussing policy, Hall points out that the usual quad. loss function in inflation and a real variable doesn't have a welfare foundation in his model.
- Chooses then to look at policies across spectrum from stabilizing prices (given an assumed pricing convention) to stabilizing unemployment.
- Would be nice to see an explicit discussion of welfare. The model does have a natural welfare measure, and referring to it would help ground the discussion of tradeoffs between product market and labor market.

Rotemberg : brief summary

1. Search and matching framework for labor market.
2. Firms set wages and choose vacancies, know they are competing against other firms.
3. Workers care about firms' altruism.
4. Altruism: firm i values not just profits, but the sum of benefits *workers* obtain from working for firm i.
5. Workers infer altruism from wage. If inference below some threshold, punish firm severely.
6. →In equilibrium, wage movements are dampened, an empirical success.

Rotemberg and Google

- Importance of altruism supported by extensive examples of corporate behavior, and Google: search on “good employer” yields 254,000 hits.
- However, note that search on “Good employer” +“New Zealand” yields 93,000 hits. More than one third accounted for by New Zealand!
- Still, 161,00 is a big number (or is it?).
- Seems difficult to disentangle required altruism from desire for high “wages,” broadly defined (nice cafeteria, flex time, WSJ October 4).

Rotemberg and Baseball

- A data point for distinguishing required altruism from desire for high wages?
- Suppose Steinbrenner fires Torre. If Jeter demands a trade or gets out of shape in the off-season, we have required altruism. Otherwise, desire for high wages.
- But in altruism case, what about consequences for employee of damaging the firm?
- Finally, assuming required altruism, clearest inferences of altruism from how firm handles downsizing – a form of endogenous separations.

Endogenizing Separations: (Hall and Rotemberg)

- In both papers, separations are exogenous.
- There are good reasons to think about endogenizing separations in both papers.
- In Hall’s case, “quits” in the goods market.
- Rotemberg, layoffs in the labor market (mentioned as downsizing above).

Endogenizing Separations: Hall

- Hall not the first to view product markets like labor markets, with search:

    1. Diamond. However, in Diamond there are no *relationships*; the matches last only one period.
    2. *"buyers…adopt a strategy analogous to … a searcher in the labor market…. Customers avoid shopping costs by sticking with their supplier much as workers avoid search costs by sticking with their employer."*

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   However, "*on each shopping trip, [customers] essentially make a quit-or-stick decision analogous to a shopper who has a job*."

Endogenizing Separations: Hall

- In Hall’s model, customer makes one-time decision whether to attach to firm; separation may happen later, but only exogenously.
- Okun instead has in mind the analogue to “on the job search.” The customer is always shopping.
- May be straightforward to incorporate in Hall’s model, just as in labor search models.
- Indeed, though it is not yet there, Hall’s approach could provide a clean way of studying customer markets in a full macro model with nonneutrality.

Endogenizing Separations: Rotemberg

- Employees-- and the community-- infer altruism more easily from firing decisions than from wages and vacancies.
- Inference about altruism sensitive to supply and demand conditions, only imperfectly observable.
- Estimate of supply & demand conditions depends on behavior of other firms.
- Complementarity among firms, possibly multiple equilibria with synchronization of layoffs: if firm A thinks B will announce layoffs, A knows it can get away with announcing them too.

To conclude

- Both papers a pleasure to read, contemplate.
- Broadened my horizons, in thinking about labor and goods markets.
- Crucial elements in the models:
  - Hall: relationships between customers and firms
  - Rotemberg: employees inferences about firm’s altruism
- Ongoing study of models with these elements will benefit from incorporating endog. separations.