Discussion of Bushnell, Mansur and Wolak, *Vertical Forward Commitments*

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Summary

- **Question** – what are the implications of vertical or horizontal mergers involving vertically integrated firms that make retail supply commitments ahead of wholesale trade?
- Marriage of three literatures:
  - Allaz and Vila (1993) – forward trading commits firms to be tougher competitors in subsequent trade
  - Salinger (1988) – vertical mergers resolve double marginalisation, but might still increase downstream prices (not even allowing for raising rivals' costs – as in Gaudet and van Long (1996))
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Summary – Results

- With symmetric firms, linear demand and constant marginal costs, vertical integration (relative to separation) yields:
  - Lower retail prices
  - Higher wholesale quantities (thus lower wholesale price)
- Full vertical separation is not an equilibrium:
  - One firm increases its profits by integrating
- Horizontal mergers:
  - Can result in *lower* wholesale price when all firms are integrated
  - If they cause prices to rise, they do so more when all firms are separated rather than integrated

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Model

- Analyses prices, quantities and profits – under vertical integration and vertical separation – in an imperfectly competitive vertical industry:
  - Wholesale/upstream trades homogeneous input produced at positive marginal cost
  - Retail/downstream transforms that input $1-1$, at zero cost, into final good
  - Consumer i makes discrete choice of retailer j:

$$u_{ij} = \alpha\left(\delta_j - p_j^r\right) + \varepsilon_{ij} \qquad \longrightarrow \qquad q_j^r = S_j\left(p^r\right) M$$

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- Allow for non-strategic imports/exports on wholesale market
- Timing and competition:
  - Firms compete differentiated Bertrand in retail market
  - Given resulting retail supply commitments, then compete Cournot in wholesale market
- Timing departure is key:
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Discussion

- Why do we have a wholesale market in this setup?
- How do we motivate sticky retailing in a world of price-comparison and customer-switching websites?
  - e.g. www.energyhelpline.com in the UK – helps customers to find cheapest supplier, and to switch "in minutes"
- And what about the impact of real-time pricing? Is there really retail commitment?
- Do we need sticky retailing to explain endogenous commitment:
  - VPPs are a feature of many electricity markets
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  - Horizontal mergers analysis makes more sense with convex and heterogeneous costs
- Also, what about general incentives to integrate? – e.g. as in Gaudet and van Long (1996)
- Usual simple logit specification could easily be accommodated:

$$u_{ij} = \alpha \left(y_i - p_j^r \right) + \beta X_j + \xi_j + \varepsilon_{ij}$$

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- Answers in Meade (2012) – with n_u upstream and n_d downstream firms (m integrated):
  - Vertical integration with forward trading, but with strategic forward purchases by separated retailers
  - Timing: Early forward upstream $\longrightarrow$ Later forward upstream $\longrightarrow$ Downstream/retail
- Integration with $n_u \simeq$ separation with $n_u + 1$ (and is equilibrium when $n_u = 2$)
- Separated retailers *strategically forward overbuy (SFO):*
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Conclusions

- Paper in early stages, but heading in very interesting direction
- Setup will benefit from tidy-ups, but already is an interesting extension of existing models
- Given the authors, what about wholesale auctions, or nodal pricing, ...
- Highlights that mergers might not work as expected – e.g. horizontal mergers might benefit consumers – so analysis is clearly warranted
- Will ultimately result in important insights into merger impacts in vertical industries with sticky retailing

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