Estimating The Information Component in Switching Costs: A Structural Approach by Truffa, Kulkarni, and Iberti

> Comments by Carlos Noton Industrial Engineering Department, Universidad de Chile

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- Demand Side: Demand Estimation with Forward-Looking Consumers who face Switching Costs
- Supply Side: FOC of Banks
- Combine the policy change to infer switching costs from reduced form estimations
- Use estimates of switching costs and demand parameters to compute the Welfare consequences of the CAE regulation.

- Switching Costs versus Searching Costs
- What did the CAE Regulation change?

## Dynamic Demand Side

$$U^{i}(\varepsilon_{t}) = \rho r_{t}^{i} + \max_{j \in 1, \dots, J} \{ \varepsilon_{t}^{j} - C^{ij} + \beta V(B_{t+1}) \}$$

where  $V^{j}(B_{t+1}) = E_{\varepsilon}[U^{i}(B_{t+1}, \varepsilon_{t})]$ 

- Single Source of Uncertainty:  $\varepsilon$
- Switching Costs favour statu-quo:  $C^{ii} = 0$
- No outside good, No New Borrowers.

## Reduced Form Regression

$$F(shares_t, shares_{t+1}, \beta) = G(\beta, \nu)C^{ij} + H(\beta, \nu) \underbrace{\rho E_t(r_{t+1}^j - r_{t+1}^i)}_{\rho(r_{t+1}^j - r_{t+1}^i) + v_{t+1}}$$

Parameters  $\beta$  and  $\nu$  are not identified. Calibration exercise.

- Allow for more standard uncertainty in prices
- Allow for standard Outside Good
- Allow for New Borrowers
- $\rho E_t(r_{t+1}^j r_{t+1}^i) = \rho(r_{t+1}^j r_{t+1}^i) + v_{t+1}?$
- $\bullet\,$  Use GMM to add extra moments that helps to identify  $\beta$  and  $\nu\,$

## Static Supply Side

Standard Monopoly Pricing

$$r_j = MC_j\left(\frac{\epsilon}{\epsilon - 1}\right)$$

- No dynamic considerations, No Switching Costs, (No competition?)
- No typical Trade-Off of Switching Costs as in Farrel-Klemperer.

## Demand Estimation for Banks

- Standard Logit Model: No dynamic considerations, No Switching Costs
- Inconsistent with your own Demand Side

- Allow for New Borrowers: Standard Trade Off with Switching Costs
- Use Dynamic Demand Estimation already have.
- Dynamic Supply?

Overall an interesting and ambitious approach to a very challenging problem!