

Network Diversity, Market Entry, and the Global Internet Backbone

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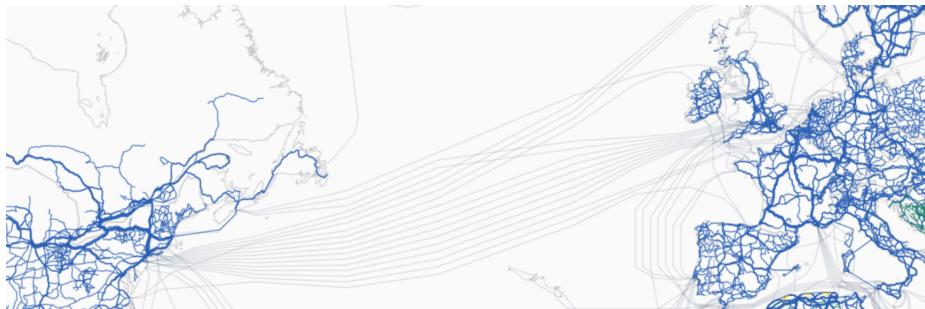
What is the paper about?

- Is entry into the undersea cable market efficient? Network diversity vs business-stealing. Very interesting!
- Model: Symmetric firms make entry decision and repeatedly play Cournot game. Industry state is number of firms.
- Estimation: Estimate demand using IVs. Back out marginal costs. Estimate remaining cost parameters using CCP fix point iteration nested in pseudo-likelihood maximization.
- Counterfactuals:
 1. Shut down supplier diversification: W goes down by 17% lower.
 2. Internalize business stealing: W increases by 2%.
 3. Internalize business stealing and diversification (socially optimal): W goes up by 6%. Avg number of firms goes down.

Some comments

- Very well written, very detailed description!
- Sophisticated model and original data.
- Non-stationary MPE allows for time-varying demand and cost states.
- Convincing identification. Energy costs, cable failures as instruments.
- Speaks to broader question of inefficient market entry. Risk aversion (here) and idiosyncratic taste shocks (RUMs) both induce “taste for variety.”

Market definition



Source: International Telecommunication Union

- A market is a country-pair. However, CAN-GBR may compete with CAN-USA-GBR.
- In this case, there could be network effects from operating multiple cables.

Some further comments

- Single price in Cournot but price dispersion in the data?
- What is the interpretation of θ_m^ϵ ? Why not normalize it?
- Are counterfactual results statistically significant?

Minor notes

- “[...] our model must account for the fact that firms may delay their entry in anticipation of more favorable demand or cost states” (p.20) vs “potential entrants are [...] are replaced by a new set of potential entrants in the following period.” (p.21)
- $(\mu^2 + \sigma^2) \sum_{i=1}^n (q_i^2 + \mu^2 \sum_{j \neq i} q_i q_j)$ on p.8?
- Suggestion: Add simple example, literature references for business-stealing (Don't firms anticipate future entry and enter less as a result?).