Remedies, and Related Issues, in Antitrust Economics

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Research question

- Research Question:

  How does the set of available remedies impact the way we think about anti-competitive conduct?

  - Mainly think about mergers

- Approach:

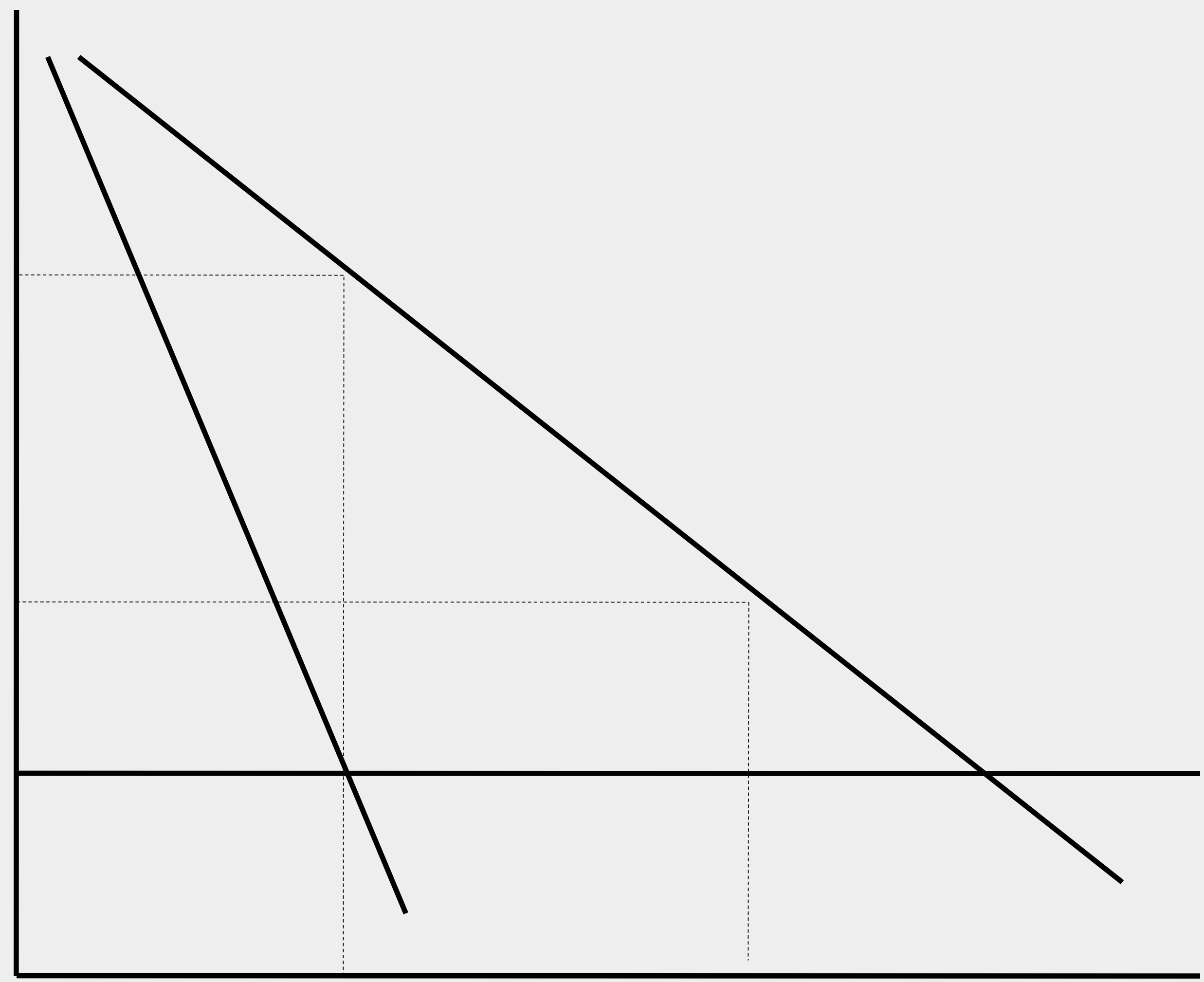
  Discuss some recent cases, open questions and ongoing research

  Restrict comments to the extant academic literature

  - Comments mainly focus on the empirical literature

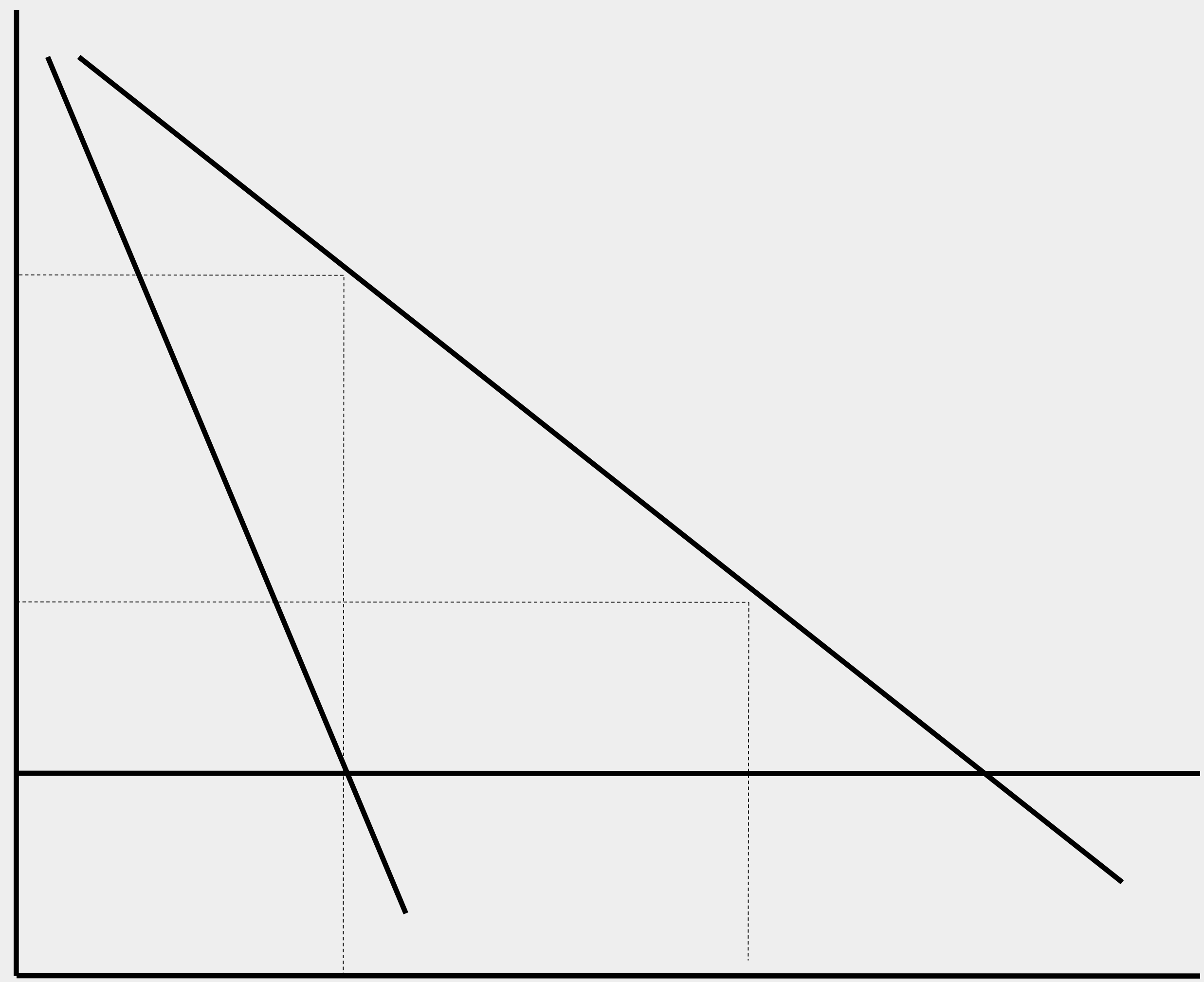
State of the Art on merger analysis

- Consider Nevo (2000, RAND)



State of the Art on merger analysis

- Consider Nevo (2000): an empirical implementation of Williamson (1968)



State of the Art on merger analysis: Modeling Policy

- The policy decision is to allows, or block, the merger.
- Is that all there is to mergers?

Remedies

• 'As the Supreme Court noted decades ago in *International Salt*, if a remedy fails to pry open the market to competition, then the government "has won a lawsuit and lost a cause." ' – Bill Baer 9/25/2013

What are the remedies that are available in a merger (or any other matter)?

- Ex ante
    - Full Stop Injunction
    - Divesting assets
    - Other structural remedies
    - Conduct remedies (via contract or external monitor)

- Ex post
    - Unscrambling the eggs
    - Disgorgement
    - Damages (for private parties)

Divestitures

• Important work by the FTC: A Study of the Commission's Divestiture Process, Staff of the Bureau of Competition of the Federal Trade Commission (1999)

• Empirical work, most recently, by Friberg and Romahn (2014), Tenn and Yun (2011), Pham and Prentice (2010).

• Generally the question is do divestitures impact prices, and the answer is pretty much yes.

Divestitures

- 2010 HSR Report:
  - 1166 HSR filings
  - 46 go to second request
  - FTC: 19 consent orders, 3 abandoned
    - 17/19 consent orders involved divesting assets
  - DoJ: 10 consent decrees, 1 litigated, 8 abandoned
    - 9/10 consent decrees involved divesting assets

Divestitures

- Are the economics really that straightforward?
    - What to divest?
    - How to measure competitive impact?
    - How good are forecasts of competitive impact of divestitures?
    - How does theory of harm matter?
    - How to structure the divestiture to attract an appropriate buyer?
        - How to structure the process so conflicting incentives are resolved

Divestitures

DaVita-Gambro

Merger 2005

(w Robin Lee and Malika Krishna)

- DaVita & Gambro merger in 2005
  - End Stage Renal Disease: chronic condition requiring ongoing dialysis
  - DaVita and Gambro both provide dialysis
  - National chains: #2 and #3 merger
    - Pre-merger HHI 2000
    - Post merger HHI 2800
  - 68 clinics to be divested, 33 in CA
    - We focus on CA

Divestitures

DaVita-Gambro

Table 1: Clinic characteristics by chain: California

	Total	DaVita	DaVita (aquired)	Gambro	RAI	Fresenius	Independent	Other
Facilities:								
2004	345	90	-	74	-	61	68	52
2006	362	142	(63)	-	34	62	64	60
Patients:								
2004	47,634	14,285	-	10,309	-	6,712	8,701	7,627
2006	49,678	21,386	(8,869)	-	4,779	7,551	7,589	8,373

Divestitures

DaVita-Gambro

Table 2: Clinic characteristics by role in merger: California

	DaVita Original		DaVita Acquired		Divested		Other	
	2004	2006	2004	2006	2004	2006	2004	2006
Using a 30 minute driving time radius around each clinic								
Average number within radius:								
Clinics	35.4	34.8	19.9	20.2	21.8	21.9	26.5	26.5
DaVita clinics	12.1	14.9	5.8	8.8	6.5	10.1	8.2	10.7
Average % share within radius:								
Clinic share of patients	11.8	10.7	15.7	15.9	8.4	7.8	14.3	14.1
Clinic share of new patients	12.0	10.6	15.6	15.8	7.5	8.2	14.4	14.3
Chain share of patients	51.8	59.4	41.2	52.3	33.9	19.8	27.5	29.3
Chain share of new patients	52.7	57.3	40.6	52.0	30.6	20.3	28.0	29.9

Divestitures

DaVita-Gambro

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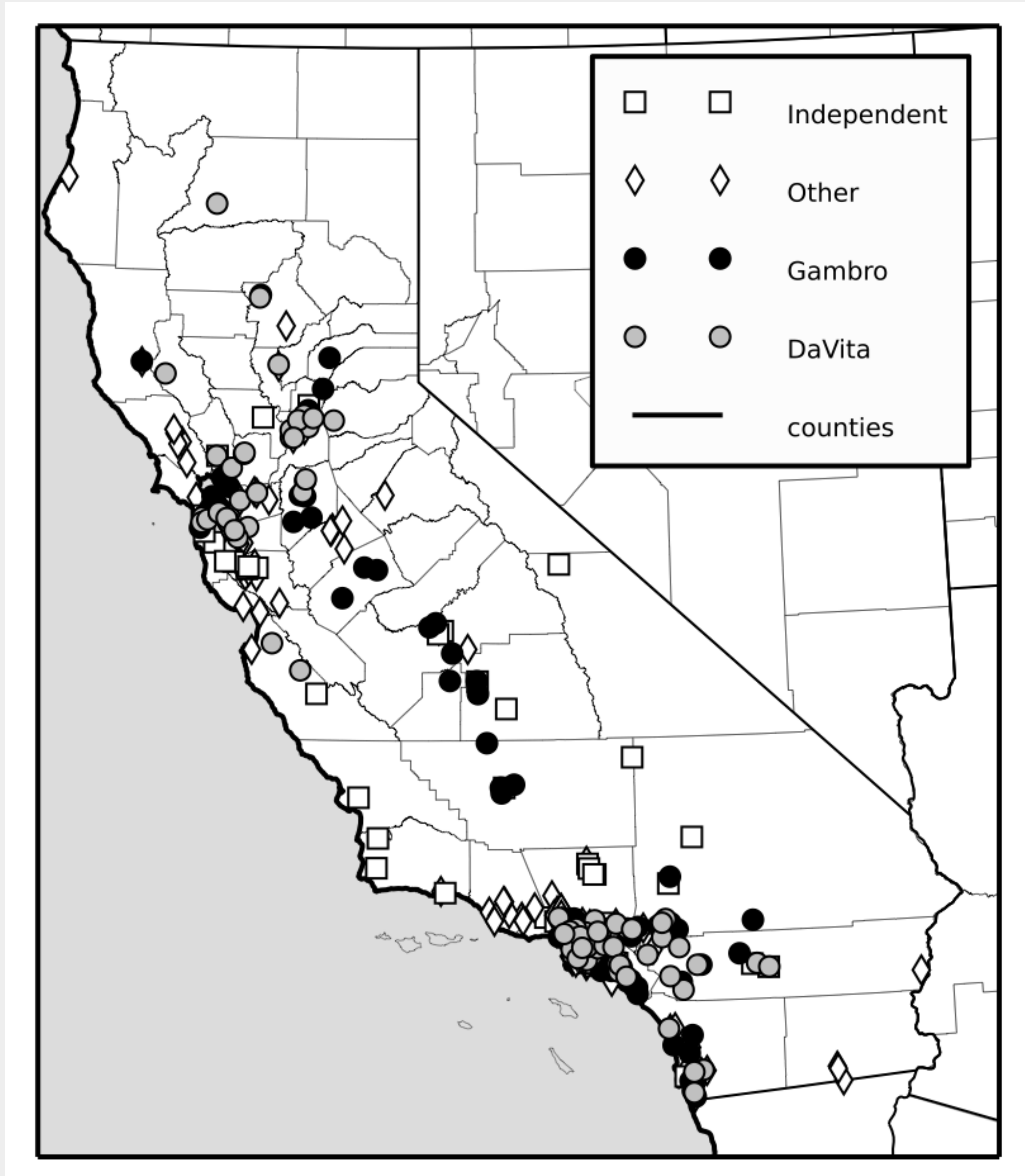
Divestitures

DaVita-Gambro

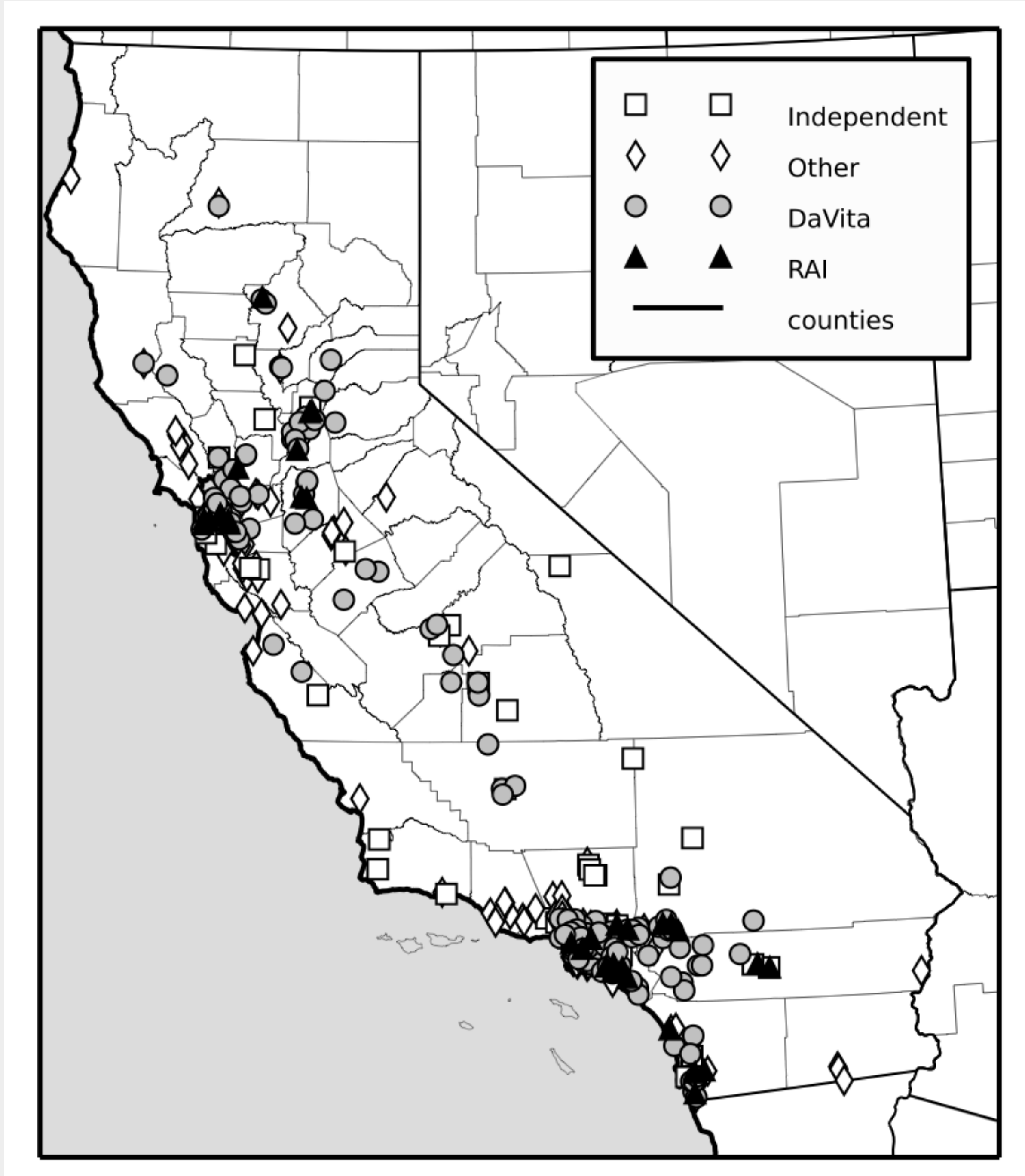
Merger 2005



Divestitures

DaVita-Gambro

Merger 2005



Divestitures

DaVita-Gambro

Merger 2005

Issues

- Three issues:
- Quality
- Prices
- Feasibility

Divestitures

Quality

- Quality?
- How to capture

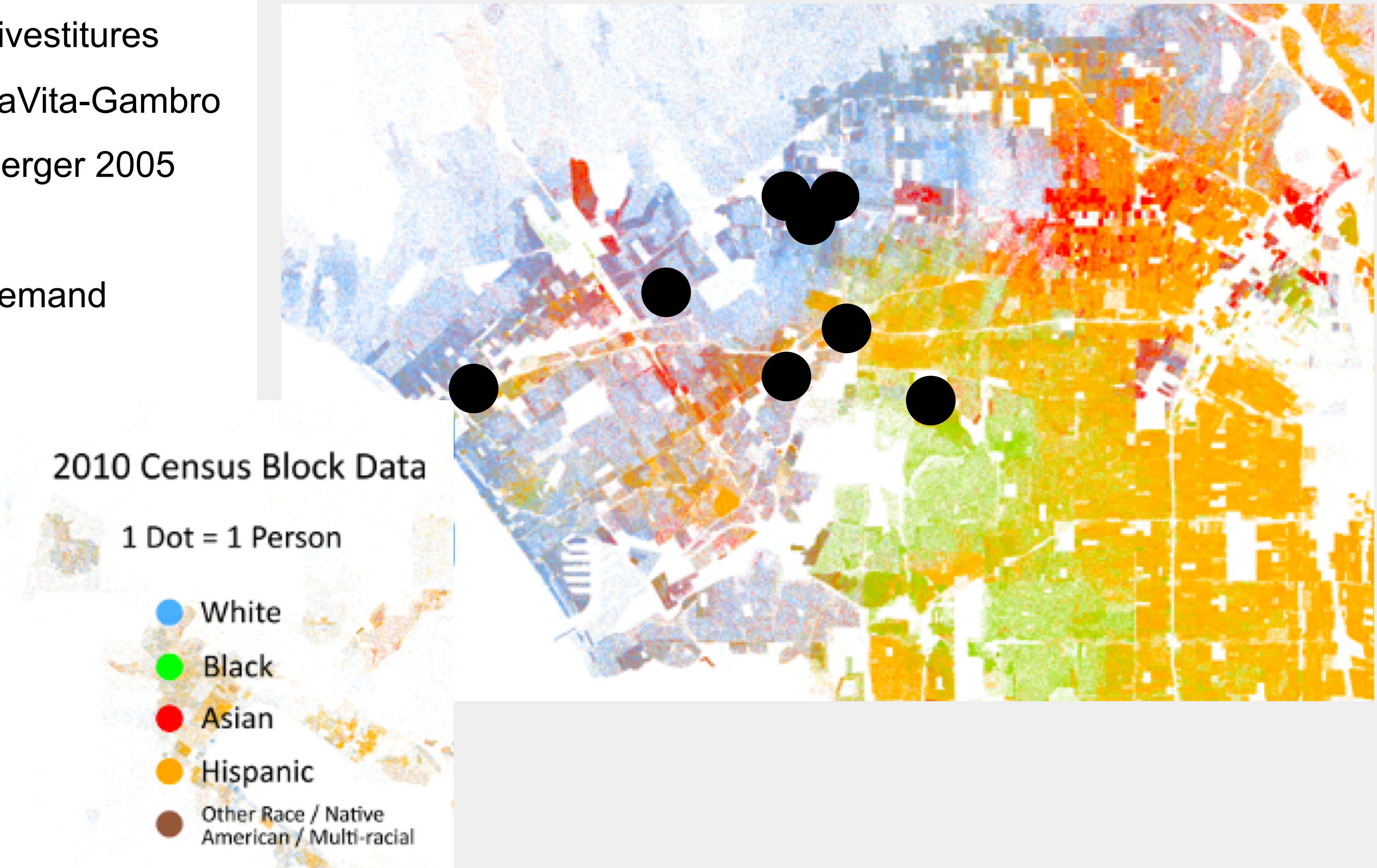
$$u_{ijt} = \delta_{jt} + \alpha_i d(l_i, l_j) + \epsilon_{ijt}$$

Divestitures

DaVita-Gambro

Merger 2005

Demand



Divestitures

Quality

- Quality?
- What does competition in quality mean?

$$\boldsymbol{i}_{k,t} = \arg\max_{\boldsymbol{i}\in\mathbb{R}^{|\mathcal{K}_{kt}|}} \sum_{j\in\mathcal{K}_{kt}} \Big[D_j(\rho\boldsymbol{\delta}_{k,t-1} + \boldsymbol{i}_t, \boldsymbol{\delta}_{-kt})(p_{jt} \times mgn_{kt}) - C_{jt}(i_{jt})\Big]$$

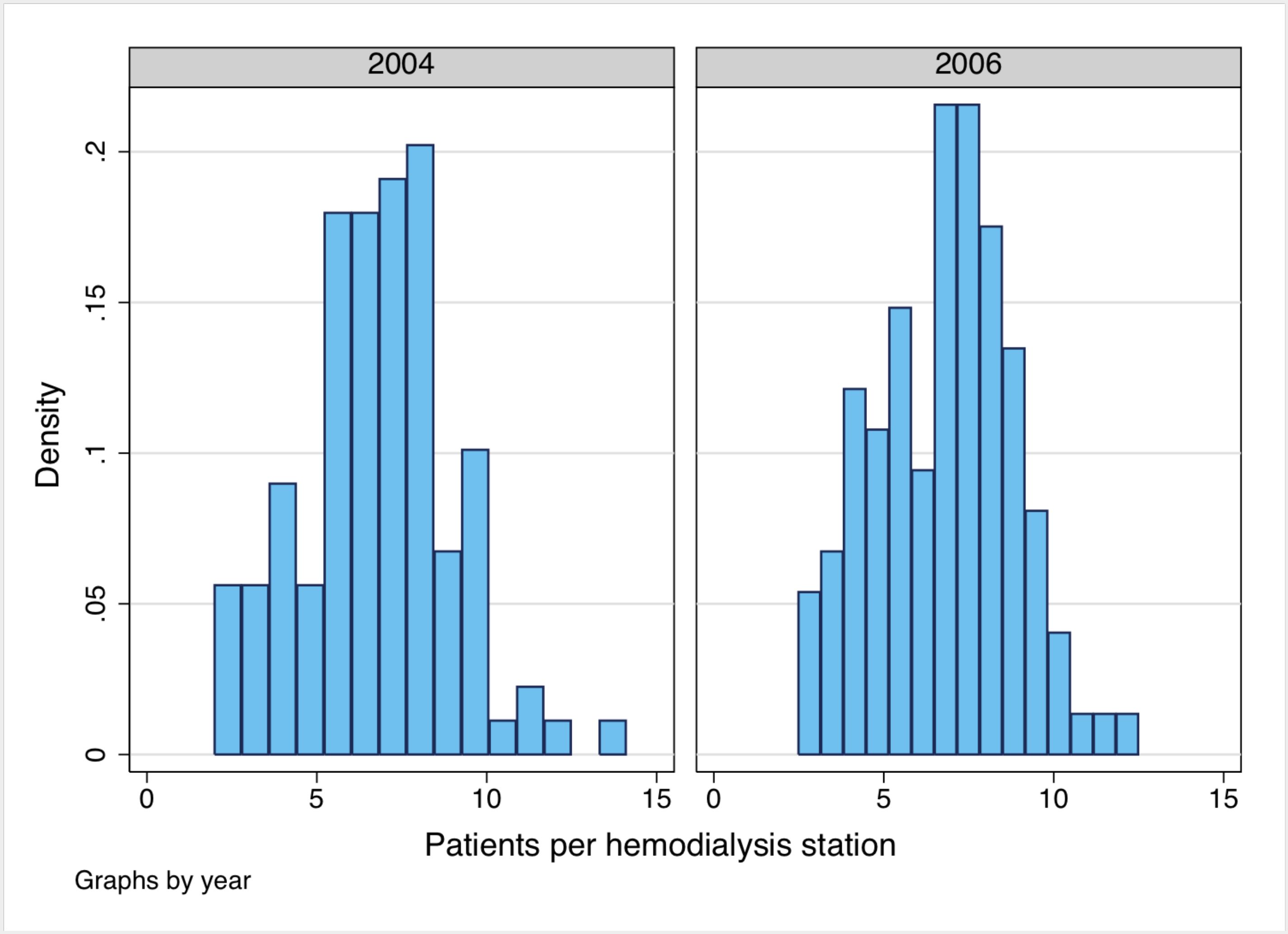
$$C_{jt}(i) \equiv \gamma_0 + i(\gamma_{1,k} + \omega_{jt}) + \kappa f^{+}(D_{jt}(\cdot) - \bar{D}_{jt})^2$$

- Constant marginal cost of quality
- Constant marginal cost up to a capacity constraint (one sided adjustment cost)

Divestitures

Quality

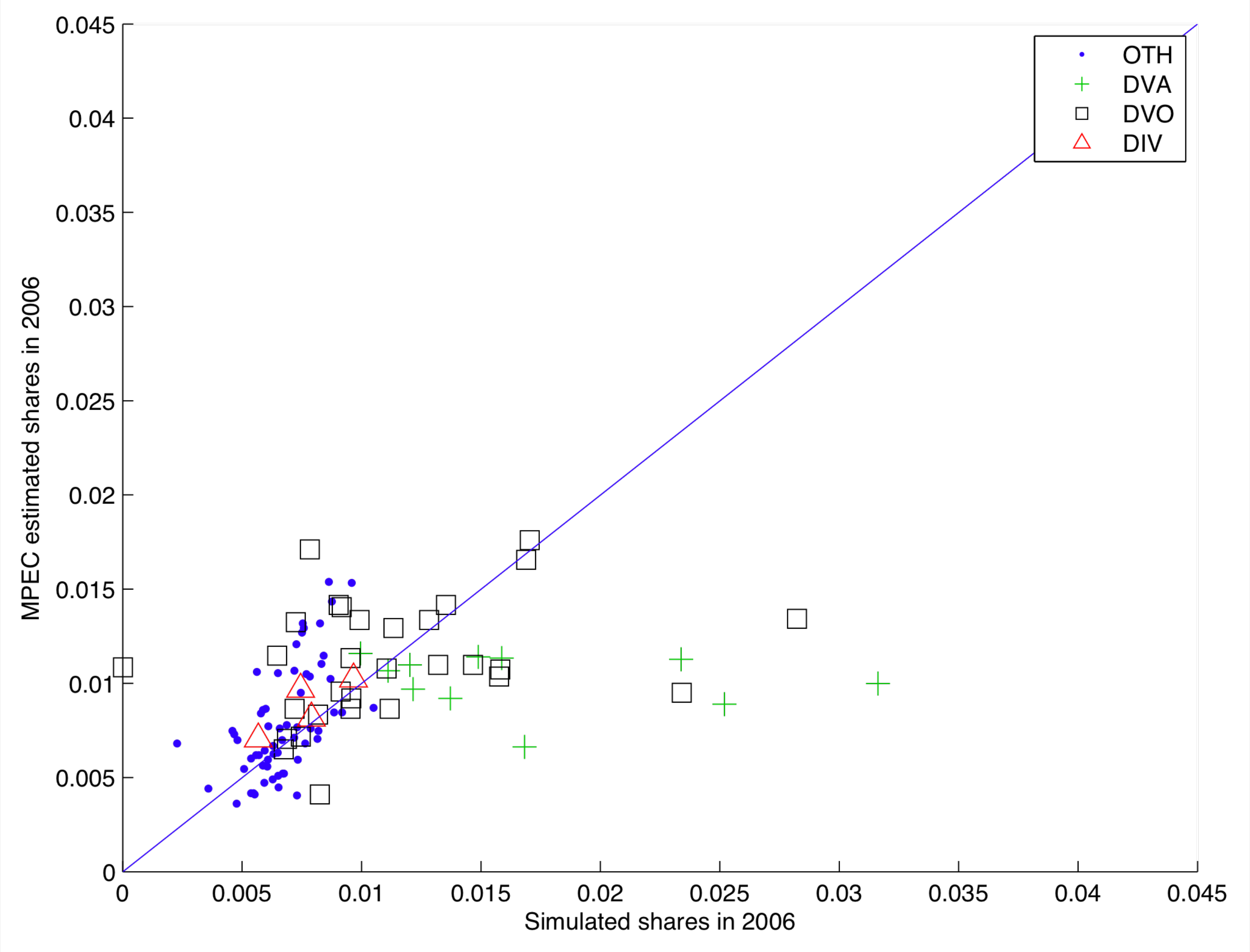
Capacity



Divestitures

Quality

Shares w/o capacity constraints



Divestitures

Quality

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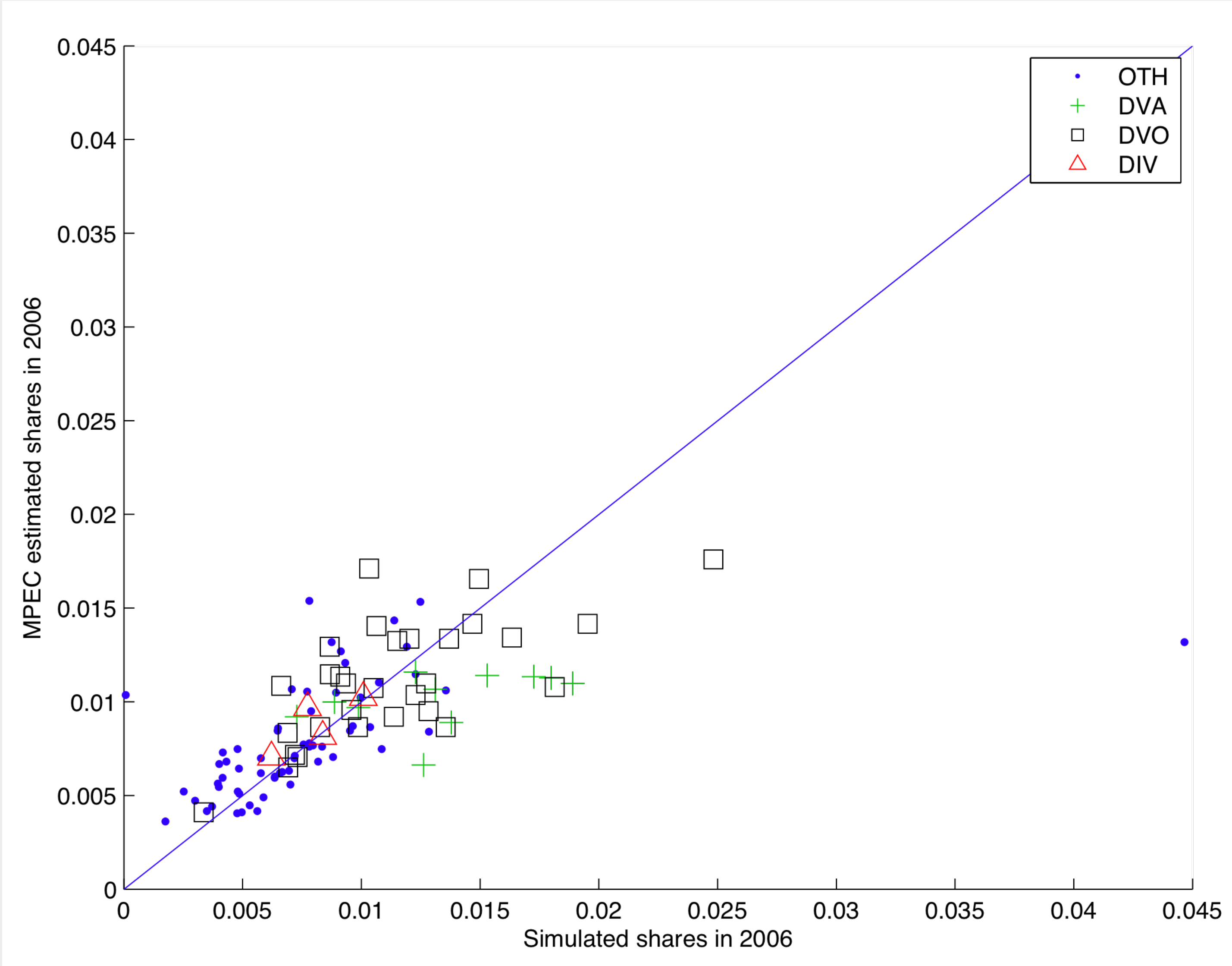


Divestitures

Prices

- Higher prices?

- Medicare has a rate set by govt.
    - vaguely similar to cost plus regulation but at an industry level

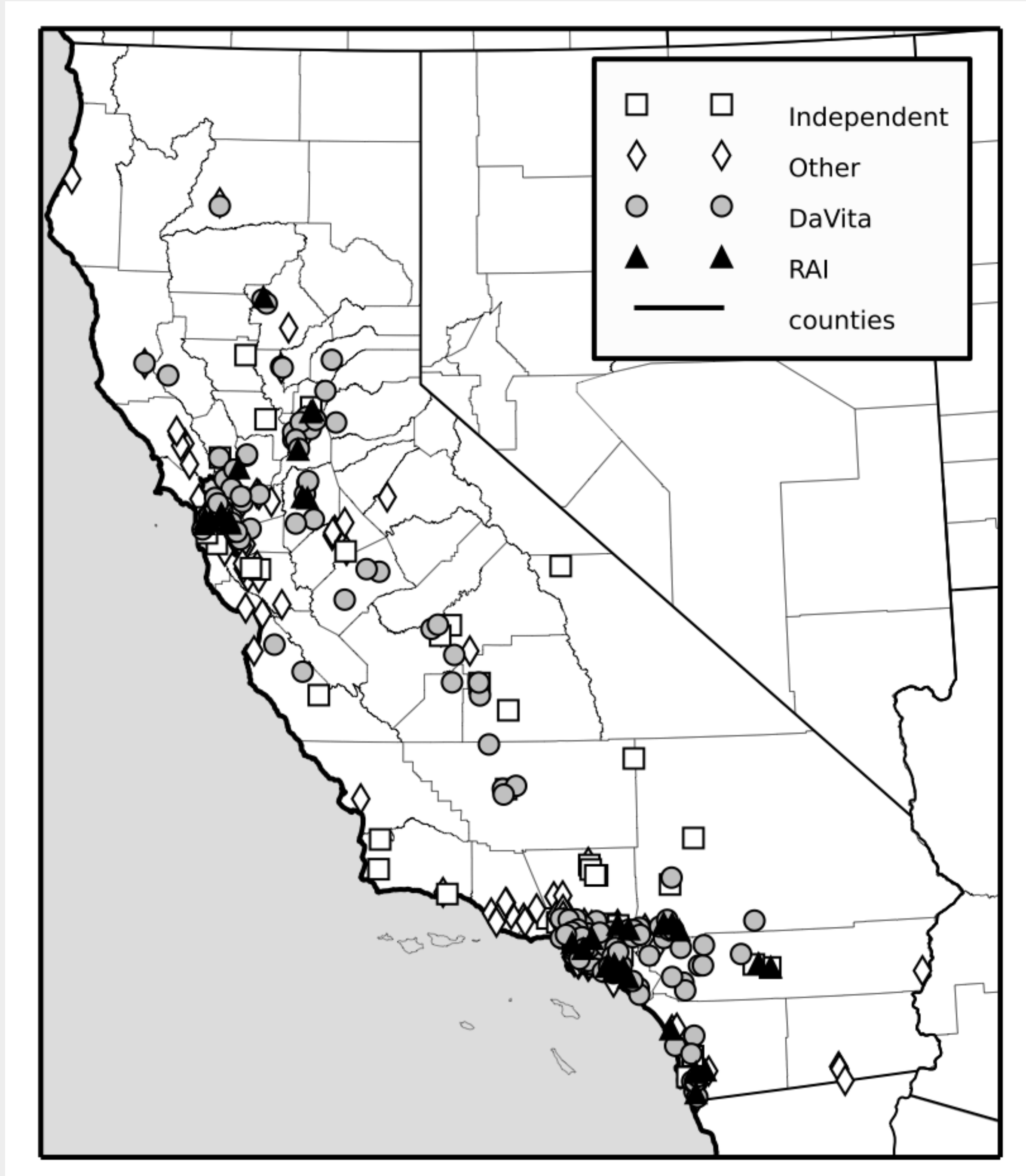
- Private payors:
    - Bargaining model
    - Which clinics have the most impact on bargaining?

    - Adopt a Capps-Dranove-Sathethrwaite type approach

Divestitures

DaVita-Gambro

Merger 2005



Divestitures

Prices

- Think about market-by-market bargaining between insurers and clinics
- If bargaining is Nash-in-Nash
- each clinic is roughly in a 30 minute drive time market
- prices are negotiated by regions (e.g. Southern CA)
- composition of the Equivalent Variation in a clinic being dropped turns out to be crucial in a simple model with logit demand for plans
- isolated market with large loses not as bad as many markets with moderate loses, even if aggregate loss is the same.
    - (transfers in bargaining models are not linear in outside options)
- thus composition of divestiture is important

Divestitures

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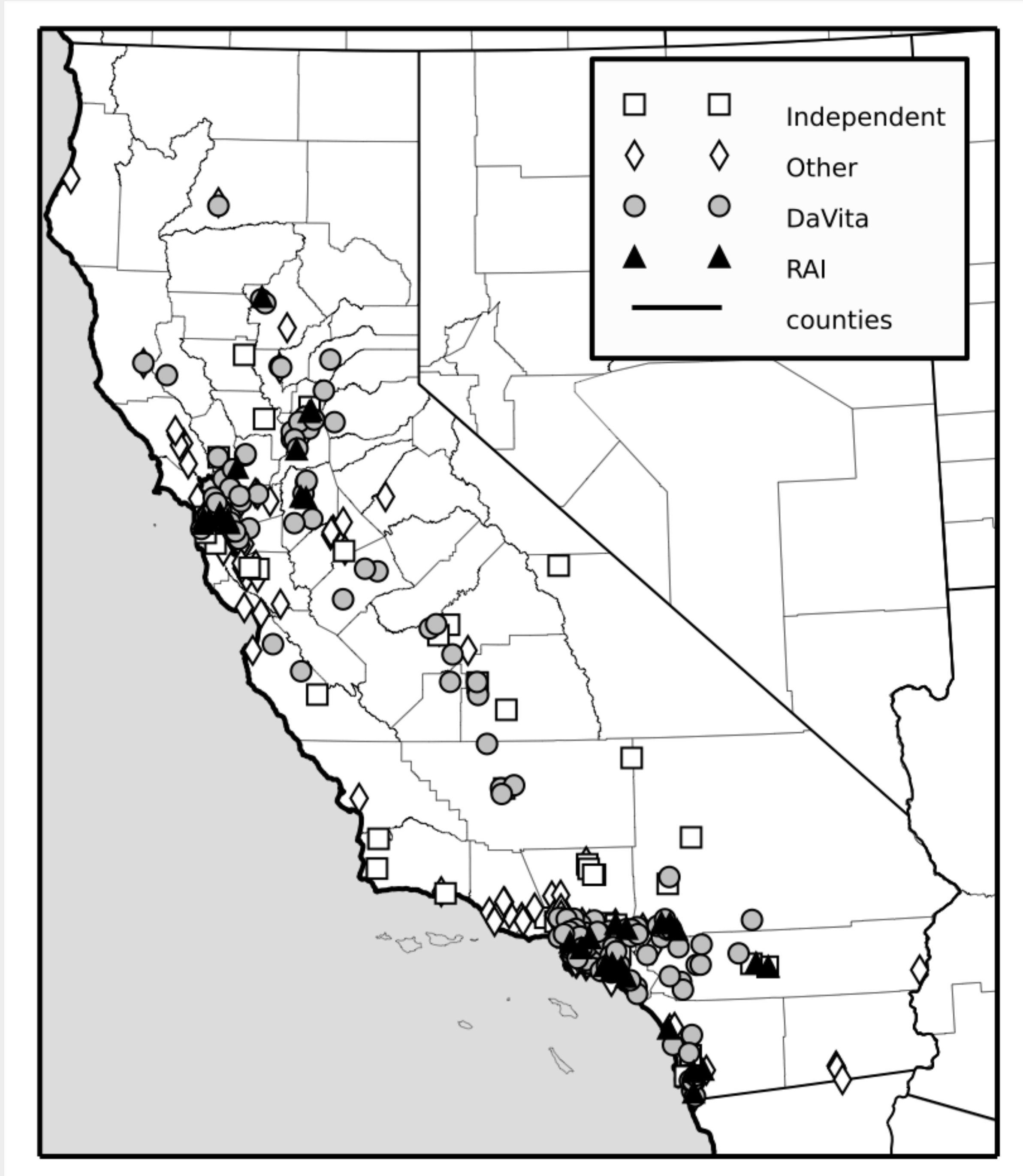

Divestitures

Feasibility

- Feasibility
  - Typically it is the respondent that proposes a buyer
  - Consider 3 firms as potential buyers
    - close competitor – both firms' profits = 5
    - medium competitor – both firms' profit = 10
    - distant competitor – both firms' profits = 15
  - Second price auction:
    - distant competitor wins
    - best outcome for respondent, worst outcome for competition
- How to design the mechanism?
  - Assets with multiple uses or PE firms vs Operating Cpnys

Conclusion

- Considerable progress in how to judge when a merger presents a competitive problem

- A lot of progress still to be made on how to remedy the problem once identified

- Empirical and theoretical tool exist, just need to deploy them

Remedies

Divestitures

Competitive harm

• “health insurance companies and other private payors who pay for dialysis services used by their members benefit from direct competition between DaVita and Gambro when negotiating the rates to be charged by the dialysis provider. As a result, the proposed combination likely would result in higher prices and diminished service and quality for outpatient dialysis services
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Divestitures

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Divestitures

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State of the Art on merger analysis: Modeling Policy

- The policy decision is to allows, or block, the merger.

- Clearly, Aviv's paper is important for any number reasons

- (We teach it to graduate students for a reason)

- (I use it as a straw man because it is a great paper)

- That said, if we think about policy are we leaving out interesting economic features of the environment ?

Open Questions

- Lots of interesting unanswered/partially understood questions around mergers

- How think about incremental mergers
    - A firm engaged in many mergers, all of which fall under HSR thresholds
    - *Grinnel*

- How to think about merger prediction when multiple equilibria exist
    - Particularly when folding in entry models

- How non-standard market environments work (some work already done)
    - Auctions
    - Bargaining
    - Heavily Regulated setting

- Efficiencies
    - The lack of well documented examples in the literature is striking