

Public Procurement vs. Regulated Competition in Selection Markets

José Ignacio Cuesta

Pietro Tebaldi

Discussed by **Victoria Marone** (Yale and NBER)

How did we get here?

- Many societies intervene in private insurance markets to protect consumers against “bad luck” and/or to prevent outcomes that feel “unfair”
 - car insurance → can't price on credit score, gender
 - homeowners' insurance → can't price on race, familial status
 - life insurance → can't price on national origin, religion, genetic info
 - health insurance → can't price on [health status](#)

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 - health insurance → can’t price on **health status**
- Directly incentivizes insurers to do strategic screening → **cream-skimming**

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 - health insurance → can’t price on **health status**
- Directly incentivizes insurers to do strategic screening → **cream-skimming**
- When the asymmetric information is artificial, the regulator can do something about it → **risk adjustment**
 - Netherlands (1992), Columbia (1993), Slovakia (1994), Germany (1994), Israel (1995), Belgium (1995), Switzerland (1996), US ACA Marketplaces (2014) ...
- But risk adjustment is a tricky business...

Cream-skimming and other distortions from risk selection incentives still very much an active area of research

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Screening in Contract Design: Evidence from the ACA Health Insurance Exchanges

Michael Geruso

Timothy Layton

Daniel Prinz

AMERICAN ECONOMIC JOURNAL: ECONOMIC POLICY
VOL. 11, NO. 2, MAY 2019
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Article Information

Abstract

We study insurers' use of prescription drug formularies to screen consumers in the ACA Health Insurance exchanges. We begin by showing that exchange risk adjustment and reinsurance succeed in neutralizing selection incentives for most, but not all, consumer types. A minority of consumers, identifiable by demand for particular classes of prescription drugs, are predictably unprofitable. We then show that contract features relating to these drugs are distorted in a manner consistent with multidimensional screening. The empirical findings support a long theoretical literature examining how insurance contracts offered in equilibrium can fail to optimally trade off risk protection and moral hazard.

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Hospital Network Competition and Adverse Selection: Evidence from the Massachusetts Health Insurance Exchange

Mark Shepard

AMERICAN ECONOMIC REVIEW
VOL. 112, NO. 2, FEBRUARY 2022
(pp. 578–615)

[Download Full Text PDF](#)

Article Information

Abstract

Health insurers increasingly compete on their networks of medical providers. Using data from Massachusetts's insurance exchange, I find substantial adverse selection against plans covering the most prestigious and expensive "star" hospitals. I highlight a theoretically distinct selection channel: consumers loyal to star hospitals incur high spending, conditional on their medical state, because they use these hospitals' expensive care. This implies heterogeneity in consumers' incremental costs of gaining access to star hospitals, posing a challenge for standard selection policies. Along with selection on unobserved sickness, I find this creates strong incentives to exclude star hospitals, even with risk adjustment in place.

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We study insurers' use of prescription drug formularies to screen consumers on health insurance exchanges. We begin by showing that exchange risk adjustment and reinsurance incentives for most, but not all, consumer types. A minority of consumers, identified as "cream-skimmers," are predictably unprofitable. We then show that certain classes of prescription drugs are distorted in a manner consistent with multidimensional screening. Theoretical literature examining how insurance contracts offered in equilibrium are affected by selection protection and moral hazard.

Upcoding: Evidence from Medicare on Squishy Risk Adjustment

Evidence

Michael Geruso

University of Texas at Austin and National Bureau of Economic Research

Timothy Layton

Harvard Medical School and National Bureau of Economic Research

Hospital Networks from the Mass

Mark Shepard

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Abstract

Health insurers in the Massachusetts health insurance exchange, "star" hospitals. High spending, conditions of heterogeneity in consumer selection policies. All hospitals, even with risk adjustment in place.

In most US health insurance markets, plans face strong incentives to upcode the patient diagnoses they report to the regulator, as these affect the risk-adjusted payments that plans receive. We show that enrollees in private Medicare plans generate 6%–16% higher diagnosis-based risk scores than they would under fee-for-service Medicare, where diagnoses do not affect most provider payments. Our estimates imply that upcoding generates billions in excess public spending and significant distortions to firm and consumer behavior. We show that coding intensity increases with vertical integration, suggesting a principal-agent problem faced by insurers, who desire more intense coding from the providers with whom they contract.

Massachusetts's
and expensive
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Cream-skimming and other distortions from risk selection incentives still very much an active area of research

Screening Insurance

Michael Geruso
Timothy Layton

Daniel Prinz

AMERICAN ECONOMIC REVIEW
VOL. 11, NO. 2, MAY 2022
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Preconditions for efficiency and affordability in competitive health insurance markets: Are they fulfilled in Belgium, Germany, and Switzerland? Ten years later

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Upcoding: Evidence from Medicare on Squishy Risk Adjustment

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Harvard Medical School and National Bureau of Economic Research

Article Information

Abstract

We study insurance exchanges. We examine incentives for classes of prescribers. Theoretical literature on protection and

ARTICLE INFO

JEL Classification:

D40

I11

I13

I18

Keywords:

Regulated competition

Efficiency

Affordability

Health system comparison

ABSTRACT

From the mid-1990s several countries have reformed their healthcare. In 2012 we assessed the extent of efficiency and affordability in competitive health insurance markets. We examine the extent the fulfillment of these preconditions

In 2022, as in 2012, in none of the five countries. The extent of the fulfillment of these preconditions has changed in different extent in the five countries. The preconditions ‘information and transparency’ and ‘freedom to contract and integrate’ in the Netherlands and Switzerland made most of these preconditions no longer seem relevant. In Germany, Israel and Switzerland the preconditions ‘information and transparency’ and ‘freedom to contract and integrate’ are not sufficiently fulfilled. In 2022, just as in 2012, in Germany and Switzerland this also holds for the precondition ‘freedom to contract and integrate’. Overall, the progress towards realizing the preconditions has been limited.

In most US health insurance markets, plans face strong incentives to upcode the patient diagnoses they report to the regulator, as these affect the risk-adjusted payments that plans receive. We show that enrollees in private Medicare plans generate 6%–16% higher diagnosis-based risk scores than they would under fee-for-service Medicare, where diagnoses do not affect most provider payments. Our estimates imply that upcoding generates billions in excess public spending and significant distortions to firm and consumer behavior. We show that coding intensity increases with vertical integration, suggesting a principal-agent problem faced by insurers, who desire more intense coding from the providers with whom they contract.

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Screening Incentives How does Risk Selection Respond to Risk Adjustment? Evidence from the Medicare Advantage Program

Michael J. Brown, Mark Duggan, Ilyana Kuziemko, and William Woolston

Timothy NBER Working Paper No. 16977

Daniel April 2011

JEL No. H51,I11,I18

AMERICAN
ECONOMIC REVIEW
VOL. 101
(pp. 64)

ABSTRACT

Governments often contract with private firms to provide public services such as health care and education. To decrease firms' incentives to selectively enroll low-cost individuals, governments frequently "risk-adjust" payments to firms based on enrollees' characteristics. We model how risk adjustment affects selection and differential payments---the government's payments to a firm for covering an individual minus the counterfactual cost had the government directly covered her. We show that firms reduce selection along dimensions included in the risk-adjustment formula, while increasing selection along excluded dimensions. These responses can actually increase differential payments relative to pre-risk-adjustment levels and thus risk adjustment can raise the total cost to the government of providing the public service. We confirm both selection predictions using individual-level data from Medicare, which in 2004 began risk-adjusting payments to private Medicare Advantage plans. We find that differential payments actually rise after risk adjustment and estimate that they totaled \$30 billion in 2006, or nearly eight percent of total Medicare spending.

holds for the precondition 'freedom to contract and integrate'. Overall, the progress towards realizing the pre-conditions has been limited.

**Medicare
Advantage**

Evidence

Economic Research

Health Economics Research

Plans face strong incentives to report to the regulator, as these are the payments they receive. We show that enrollment in Medicare is 6%–16% higher for those who are not in Medicare, where payments are higher. Our estimates imply that risk adjustment increases public spending and signaling behavior. We show that coding is more intense from the

Massachusetts's and expensive plans incur high penalties for standard deviations to exclude star

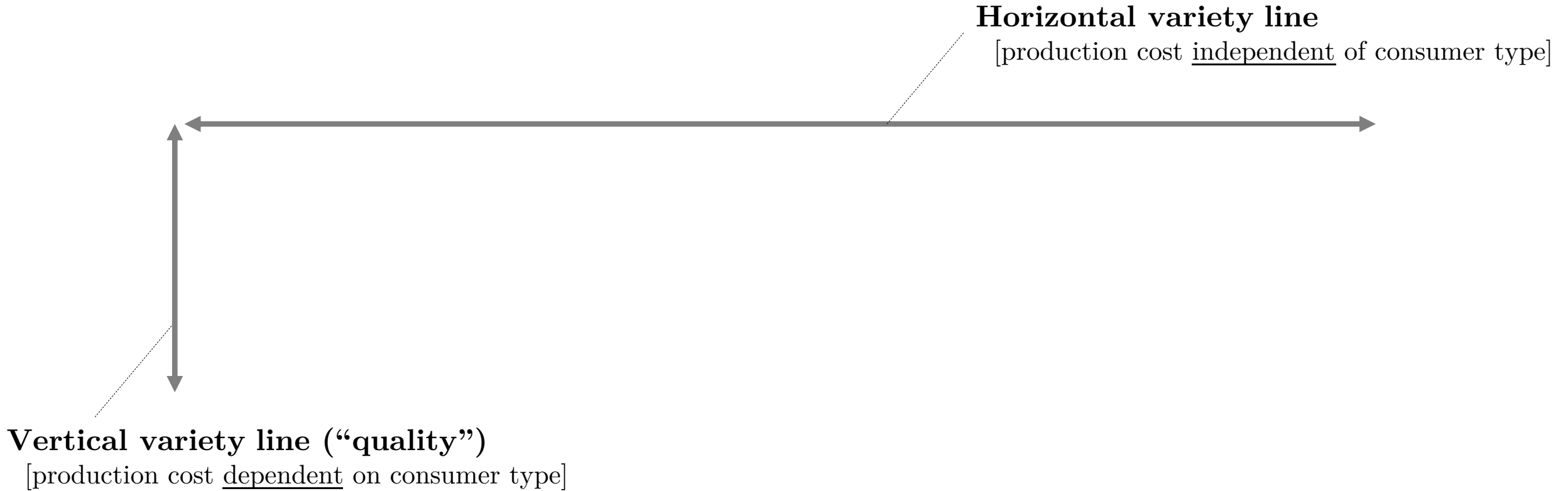
Meanwhile...

- A concurrent literature studying the interaction between **selection** and **market power** has established that market power dampens cream-skimming incentives

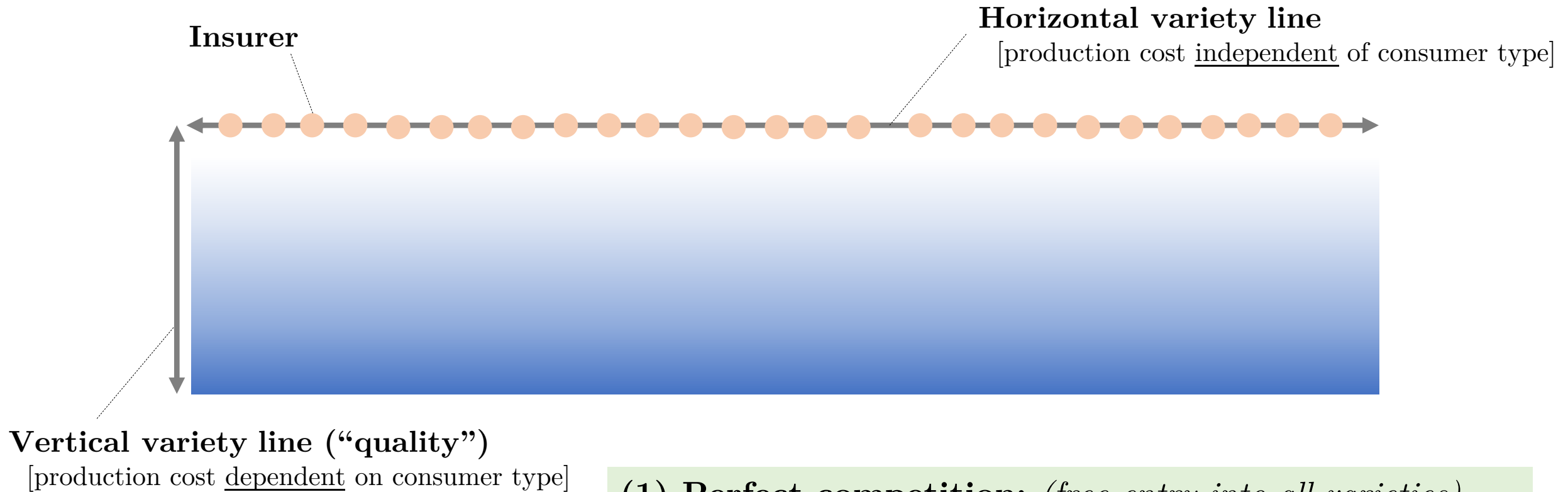
Stiglitz (1977), Starc (2014), Veiga Weyl (2016), Mahoney Weyl (2017), Lester Shourideh Venkateswaran Zetlin-Jones (2019), Gottlieb Moreira (2022), Chade Marone Starc Swinkels (2024), Ryan (2025) ...

- Possible to get more insurance transacted (relative to competition)
... but more of the surplus accrues to firms rather than consumers
and, can lose valuable product variety

So where does it leave us?

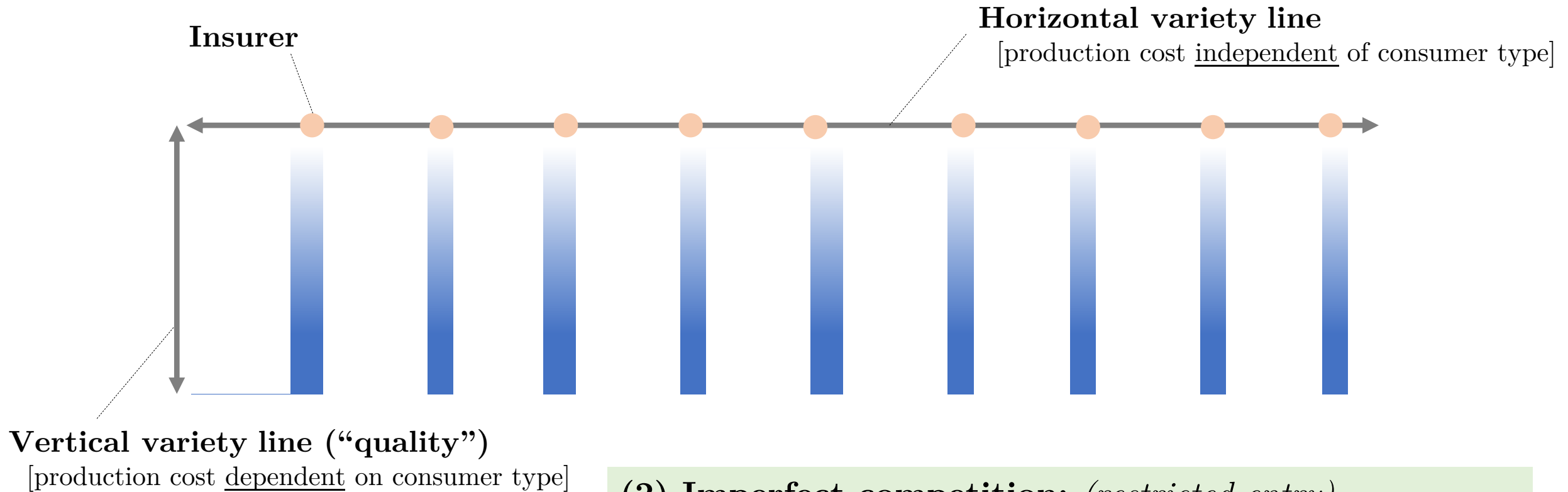


So where does it leave us?



(1) Perfect competition: (*free entry into all varieties*)
Lots of horizontal variety, but selection unravels the market such that only low vertical quality transacted in eqm, all surplus accrues to consumers

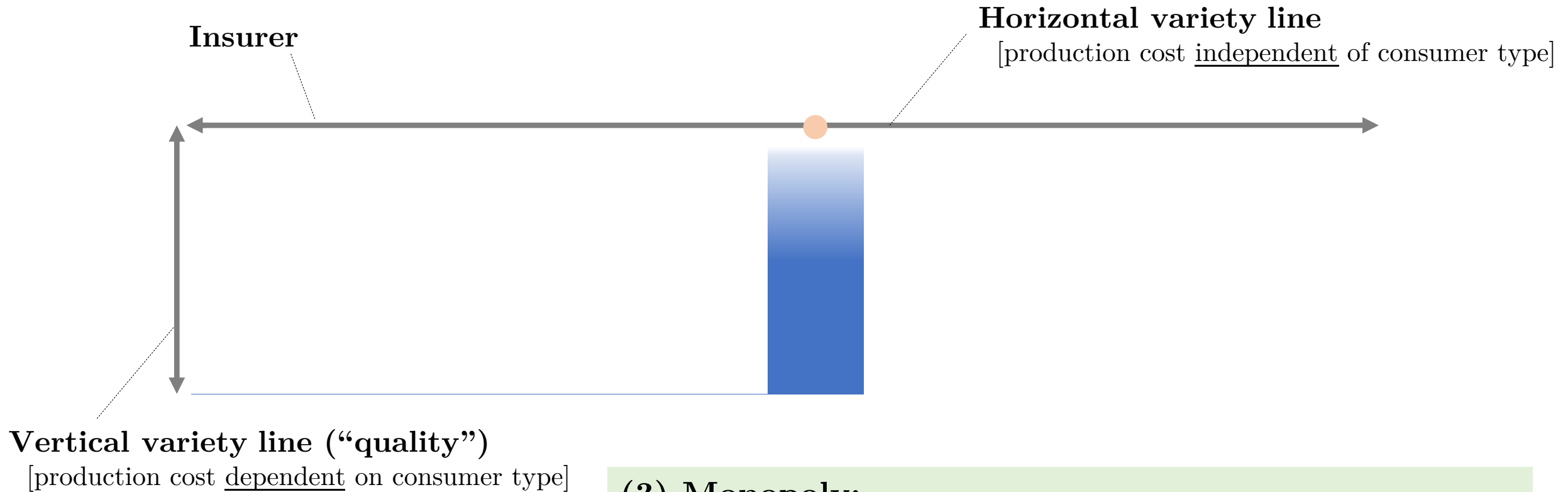
So where does it leave us?



(2) Imperfect competition: (*restricted entry*)

Still some horizontal variety, cream-skimming incentives dampened, market unravels less, more vertical quality may be transacted in eqm, part of surplus accrues to firms

So where does it leave us?



(3) Monopoly:

No horizontal variety, cream-skimming incentives eliminated, market unravels even less, more vertical quality may be transacted in eqm, much of surplus accrues to firm

This paper

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Evaluates this tradeoff



+ Central novel element:

Use an **auction** to appropriate some of the surplus created by firms



What do they find?

Channel	Imperfect competition (status quo)	Auction-to-monopoly (counterfactual)
Horizontal product variety [<i>status quo better</i>]		
Transacted quality [<i>ambiguous</i>]		

$\Delta SS :$

Insurer profits [<i>ambiguous</i>]		
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$\Delta PS :$

$\Delta GS + \Delta CS :$

What do they find?

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Allocational efficiency	$\Delta SS :$	

Insurer profits <i>[ambiguous]</i>		
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$\Delta PS :$
 $\Delta GS + \Delta CS :$

What do they find?

Channel	Imperfect competition (status quo)	Auction-to-monopoly (counterfactual)
Allocational efficiency	$\Delta SS : +\$40 / \text{person-year}$	

** Would be interesting to know, what ΔSS is achieved by social planner's solution and by first-best allocation? [across whole support of characteristic space]*

Insurer profits <i>[ambiguous]</i>		
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$\Delta PS :$
 $\Delta GS + \Delta CS :$

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Insurer profits <i>[ambiguous]</i>	\$487 / pers-yr	\$327 / pers-yr
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$\Delta PS : -\$160 / \text{pers-yr}$
 $\Delta GS + \Delta CS : +\$200 / \text{pers-yr}$

Questions

- Status quo firm profits estimated to be \$1,521 per enrollee per year
 - implied MLR of 72% (= 3835/5356)
 - actual MLR in CA of 88% .. 16% too high to be QI?
 - with lower baseline profits, less room to reduce insurer profits without them going negative..
- How to think about allowing the monopolist to offer more products than they would have done as an oligopolist? (reduced variety penalty)
- Once insurer is a monopolist, how to think about countervailing power vis-a-vis providers? Maybe it only works if this is a sub-population of consumers?

Takeaways

- Important and novel study of regulatory design in health insurance markets
- Interesting connections with regulatory design of natural monopolies
- Lots of subtlety on auction design, which the paper thoroughly explores
- Many other possible applications to explore (Medicare Advantage...)

Thanks for a great paper!!

