HEC PARIS

Bridging Corporate Political Activity and Innovation Strategy

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IOEA Workshop – May 18th, 2023

Agenda

- **Corporate political activities**
  - Which firms lobbies and what do they get out of it?
  - Public perception

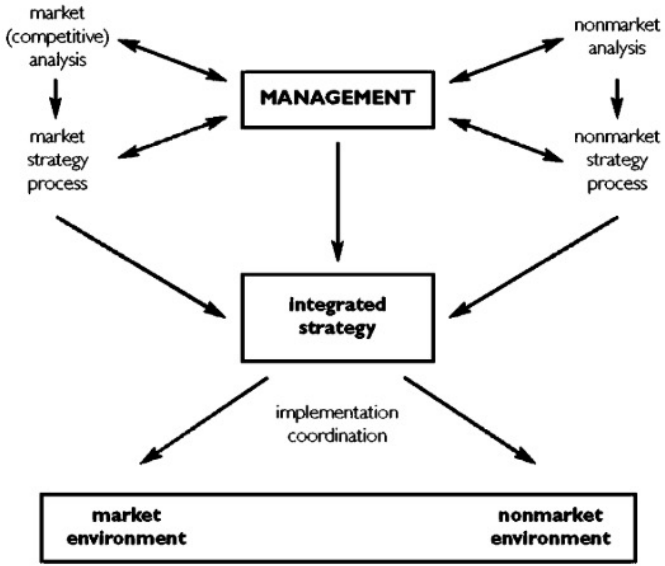
- **Innovation**
  - Innovation policy
  - Innovation strategy

- **Bridging innovation strategy and corporate political activities**

Corporate Political Activities Nonmarket Strategy

Nonmarket strategy?

FIGURE 1. Integrated Strategy: Analysis through Implementation



- **Main assumption relaxed: nonmarket environment is endogenous**
- **Competitive strategy views nonmarket strategy as a given**

Baron, D. P. 1995. Integrated strategy: Market and nonmarket components. California management review, 37(2), 47-65.

Ahuja, G., Capron, L., Lenox, M., & Yao, D. A. (2018). Strategy and the institutional envelope. Strategy Science, 3(2), ii-x.

- **Definition:** "the assemblage of formal and informal bodies that govern, facilitate and constrain organizational action and the practices, and the norms and regulations supported by such bodies, to accomplish the achievement of their goals."

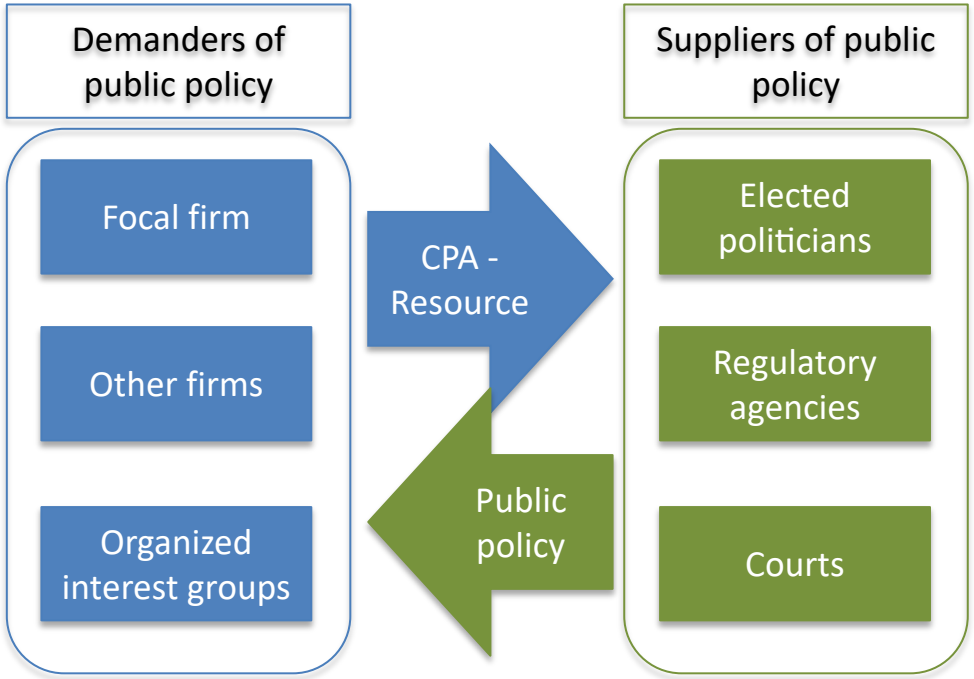
- **Key dimensions of strategy**
  - Industry structure
  - Firm heterogeneity
  - "the institutional envelope is both a primitive to and product of firm strategy and industry structure."

Ahuja, G., Capron, L., Lenox, M., & Yao, D. A. (2018). Strategy and the institutional envelope. Strategy Science, 3(2), ii-x.

- **Institutional envelope ↔ Strategic choices**
  - Determines the set of choices available (e.g. banking regulation standardize lending rates)
  - Influences the resources available to execute strategic choices (e.g. labor market, property rights)

- **Institutional envelope ↔ Industry structure**
  - Industry concentration, Barriers of entry
  - Concentrated industries more likely to be regulated

Why do firms engage in political markets? and How?



Why?

- Size, industry concentration
- Dependence
- Timing
- Competition in political market

How?

- Transactional vs. relational
- Collective vs. individual
- Defensive vs. proactive
- Leading vs. following
- Concealed vs. not concealed

Bonardi, J. P., Hillman, A. J., & Keim, G. D. (2005). The attractiveness of political markets: Implications for firm strategy. *Academy of Management Review*, *30*(2), 397-413.

Does corporate political activity increase firm performance?

- **Literature**
  - US focused
  - Elected officials
  - Financial exchanges: Campaign contributions, PACs
  - Political connections
  - Abnormal returns

Fisman, R. (2001). Estimating the value of political connections. American economic review, 91(4), 1095-1102.

- **To what degree do firms rely on political connections for their profitability?**

- **Challenges for empirically studying this question**
  - Defining political connections, particularly in decentralized governments
  - Business-politics relations are taboo. So difficult to collect data
  - How to estimate value is not clear
  - Unobservables correlated with both business acumen and ability to establish political connections

Fisman, R. (2001). Estimating the value of political connections. American economic review, 91(4), 1095-1102.

Empirical strategy

- **Indonesia – highly centralized and stable political structure**
  - Possible to construct index of political connectedness
- **Event study approach**
- **Exploit:**
  - Rumors on President Suharto's health during his final years in office.
  - Number of episodes with rumors.
  - Examine effects on returns of firms with differing degrees of political exposure.

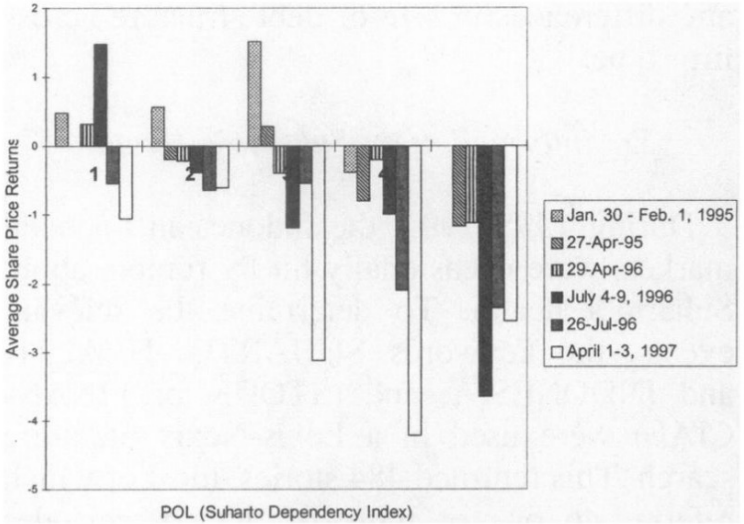


FIGURE 1. EFFECT OF POLITICAL DEPENDENCE ON SHARE PRICE RETURNS

Jia, N., Zhao, B., Zheng, W., & Lu, J. (2022). No Free Lunch After All: Corporate Political Connections and Firms' Location Choices. Organization Science, 33(2), 650-670.

- **Choice of location of new subsidiary**

- **Factors**
  - Political connections
  - Local economic conditions

- **Evidence on the cost of political connections**

Jia, N., Zhao, B., Zheng, W., & Lu, J. (2022). No Free Lunch After All: Corporate Political Connections and Firms' Location Choices. Organization Science, 33(2), 650-670.

- **Empirical strategy**
  - Location of connected local politicians are largely exogeneous to the firms. Rotation of location by the Chinese Communist Party.

Table 3. Location Choice Models: Political Connections, Unemployment, and Leverage of Higher-Level Government Power

	Model		
Dependent variable: *Entry*	(1)	(2)	(3)
City_PC	0.266***	0.971***	0.157*
	(0.073)	(0.178)	(0.088)
City_PC × *City_Unemployment*		−0.555***	
		(0.133)	
City_PC × *TMT_ExCentral_Official*			0.360**
			(0.152)
Observations	1,375,159	1,375,159	1,375,159
New subsidiaries	5,531	5,531	5,531
Pseudo R^2	0.276	0.276	0.276
Log-likelihood	−22,075	−22,066	−22,072

Controlling for city unemployment, prior subsidiary, geographic distance, GDP per cap, population density, universities, wage, land, FDI, etc.

Public Perception: Corporate Political Activities and Legitimacy

- **Jia, N. (2018). The "make and/or buy" decisions of corporate political lobbying: Integrating the economic efficiency and legitimacy perspectives. *Academy of Management Review*, 43(2), 307-326.**
  - Audience uncertainty about lobbying content, they rely on perceived legitimacy
  - Outsourcing of lobbying activities
  - Tension between legitimacy x firm capabilities x transaction costs

Public Perception: Corporate Political Activities and Reputation

Werner, T. (2015). Gaining access by doing good: The effect of sociopolitical reputation on firm participation in public policy making. Management Science, 61(8), 1989-2011.

DV = count of non-hostile Congressional hearings

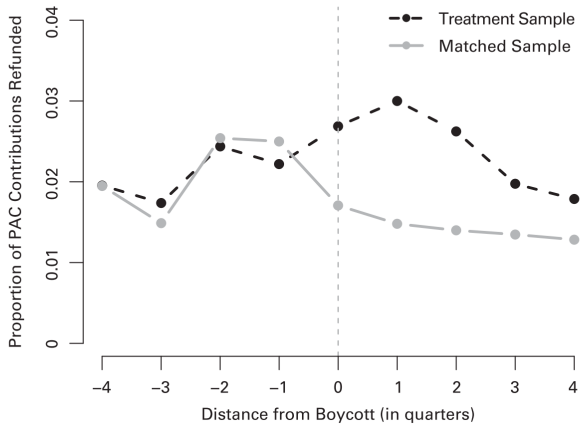
Sociopolitical reputation = perceived commitment to CSR

Table 3 GEE Analysis of Effects of Firms' CSR on Political Access to Strategically Important Committees

	Specification	
Variable	1	2
Sociopolitical Reputation$_{t-1}$	0.057**	0.074***
	(0.024)	(0.038)
Technical Reputation$_{t-1}$	−0.033	−0.021
	(0.027)	(0.039)
Sociopolitical Reputation$_{t-1}$ × *Democratic Control*$_t$		0.049**
		(0.027)
Sociopolitical Reputation$_{t-1}$ × *PAC Contributions*$_{t-1}$		0.002
		(0.013)
Sociopolitical Reputation$_{t-1}$ × *Lobbying Expenditures*$_{t-1}$		0.025**
		(0.011)

McDonnell, M. H., & Werner, T. (2016). Blacklisted businesses: Social activists' challenges and the disruption of corporate political activity. *Administrative Science Quarterly*, 61(4), 584-620.

Figure 1. Quarterly mean proportion of PAC contributions refunded before and after a boycott announcement.



Bertrand, M., Bombardini, M., Fisman, R., Hackinen, B., & Trebbi, F. (2021). Hall of mirrors: Corporate philanthropy and strategic advocacy. The Quarterly Journal of Economics, 136(4), 2413-2465.

- **Focus**
  - Information provided by competing interests. Challenging to identify biased information.
  - For profits: potentially biased group
  - Non-profits: theoretically unbiased group
  - Financial ties and impact on influence

- **Data: S&P500 and Fortune 500 over 1995-2016**
  - Charitable donations from tax forms at IRS
  - Across agencies: EPA, FAA, FDA, FWS, HHS, etc.

Bertrand, M., Bombardini, M., Fisman, R., Hackinen, B., & Trebbi, F. (2021). Hall of mirrors: Corporate philanthropy and strategic advocacy. The Quarterly Journal of Economics, 136(4), 2413-2465.

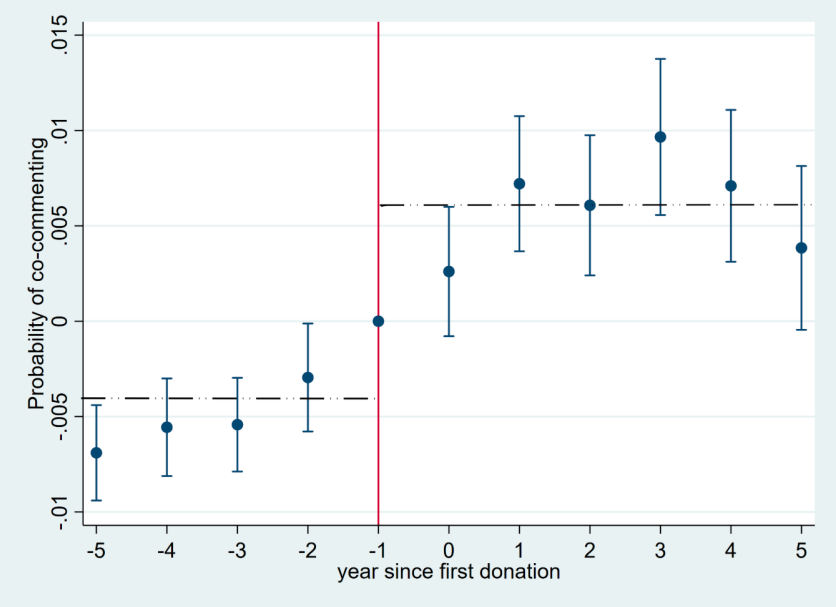


FIGURE I
Event Study for Co-Comment Activity After a Donation

- **Step 1: Likelihood of commenting on the same rule following a donation**
- **Step 2: Similarity in content**
- **Step 3: Adoption of final rule if grantee co-commented**

Research opportunities

- **Empirical Challenges & Gaps**
  - Beyond money and access: information exchange
  - Identification: variation, aggregate outcome
  - Some policymaking venues neglected

- **Innovation-related interactions**
  - Important issues
  - High asymmetry of information
  - Frequent need to adapt or create institutions
  - Court-made policy
    - Archival text data
    - Lower financial cost of participating
    - Power of court and legitimacy

Innovation

Innovation Policy

- **Why?**
  - Creative destruction
  - Spillovers
  - Employment, GDP, Welfare

Arrow’s Information Paradox

Incentives to innovate

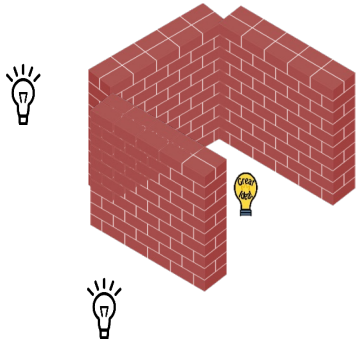
- **Firms won't make investments they do not expect to recoup**

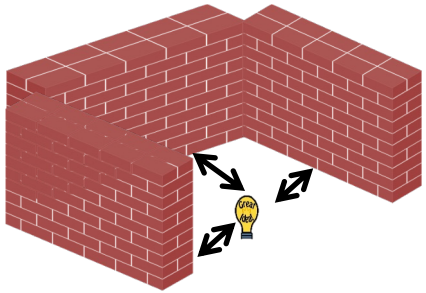
- **Solutions**
  - Subsidies
  - R&D tax credit
  - Public research
  - Intellectual property rights
  - Other technology-specific solutions – FDA

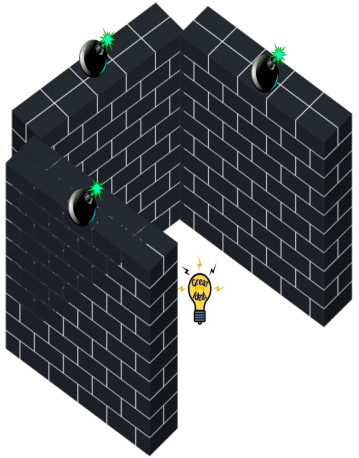
- **Evaluate Impact**
  - What is the goal?
    - Quantity? Novelty? Social impact? Avoid crowding out?
  - Empirical challenges – selection, endogeneity

The patent system… in theory

- **Invention that is novel, non-obvious, and useful**
- **20 years of monopoly**
- **Information disclosure**
- **Dimensions of patent strength**

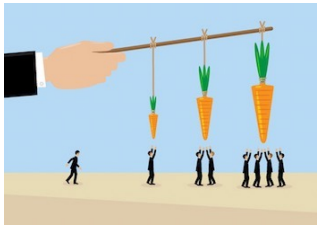






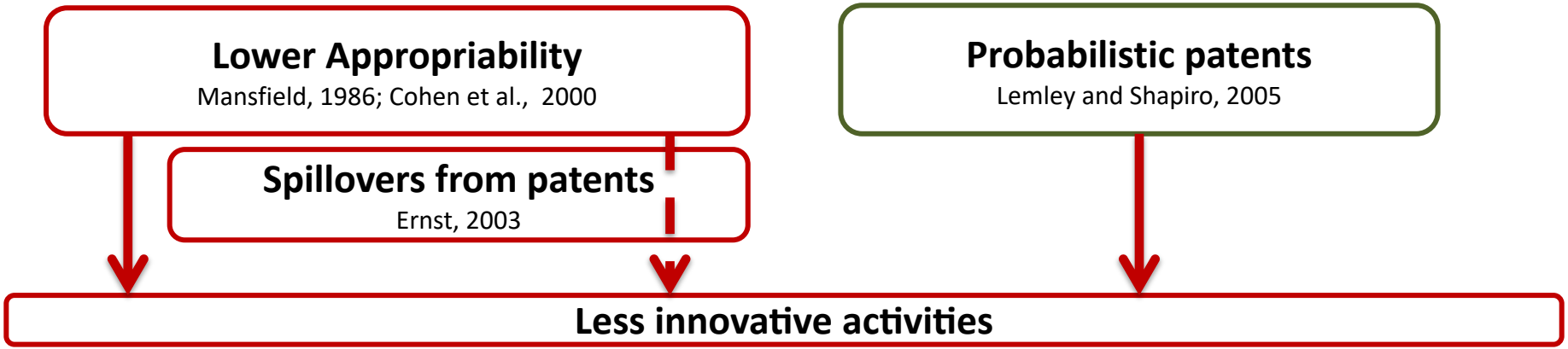
ON-GOING DEBATE - Penrose (1951) … Williams (2016, 2017), Hou, Png & Xiong (2023)

*"We can feel that this is a **period of "retreat"**. It may have been **excessive before,** and it is perhaps becoming **excessive in the other direction today**"*
Interview with chemicals manufacturing corporation, Sept2016



The case for strong patents

*"The **right to exclude** others from practicing a validly patented invention provides the **investment incentive** that is **essential** for high-risk, high-cost biotechnology R&D. **Increased unpredictability** with respect to availability of exclusive right will greatly diminish the value of patent rights, [. . .] and **discourage the investment required to research**." Biotechnology Industry Organization (BIO)*



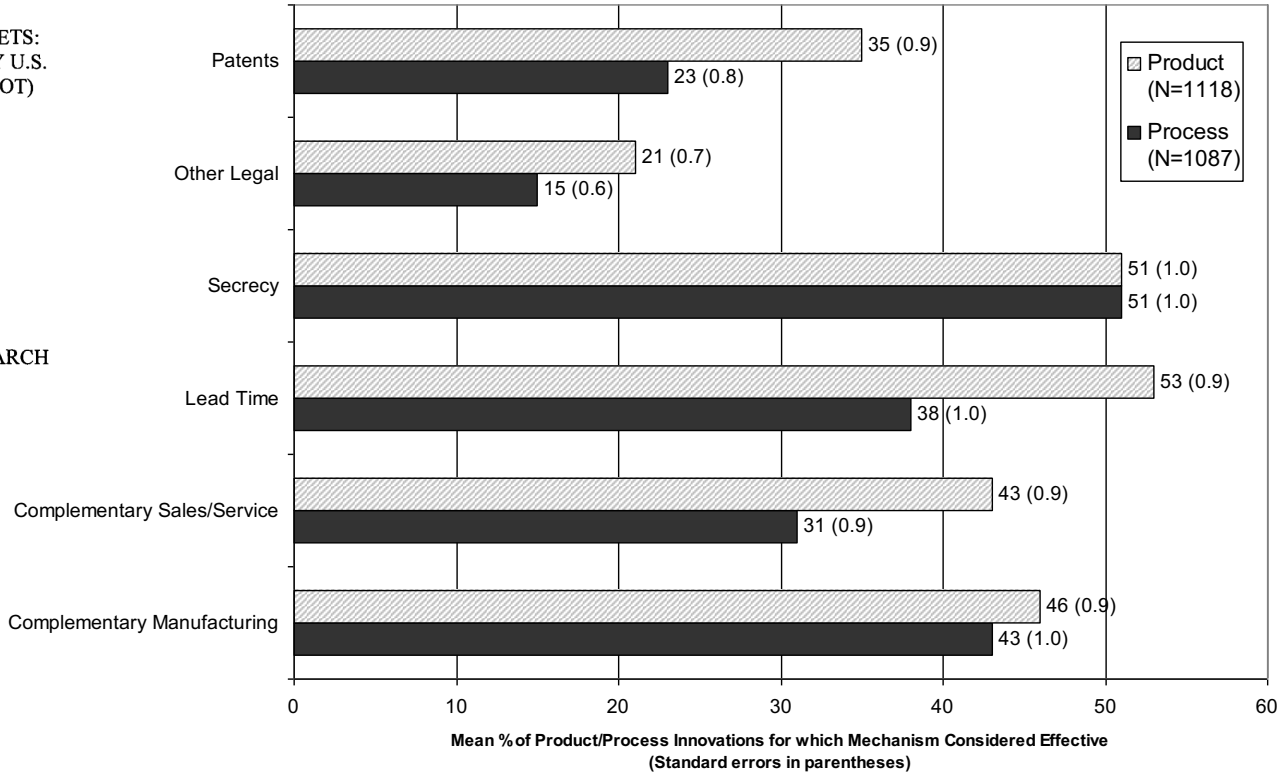
Effectiveness of appropriability mechanism?

PROTECTING THEIR INTELLECTUAL ASSETS:
APPROPRIABILITY CONDITIONS AND WHY U.S.
MANUFACTURING FIRMS PATENT (OR NOT)

Wesley M. Cohen
Richard R. Nelson
John P. Walsh

Working Paper 7552
http://www.nber.org/papers/w7552

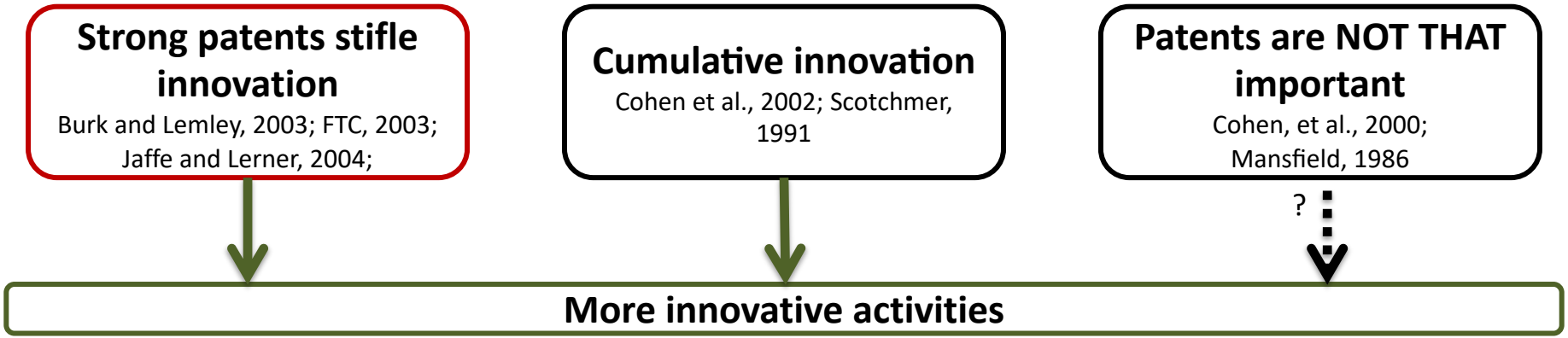
NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
February 2000



The case for weak patents

*"Patent assertion companies use the **threat of injunction** to extract not an amount reflecting the value of their patented invention [. . .], but **the amount a company is prepared to pay to remain in business**" Research in Motion (RIM)*

*"Technology products typically consist of **hundreds or thousands of patented components**. It therefore **is impossible for technology companies to investigate all of the patents**,[. . .] notwithstanding their best efforts to do so." Business Software Alliance*



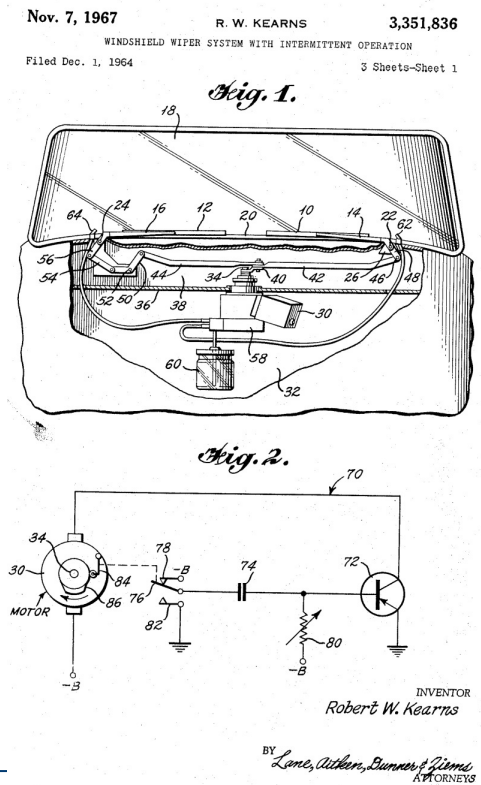
Galasso, A., & Schankerman, M. (2015). Patents and cumulative innovation: Causal evidence from the courts. The Quarterly Journal of Economics, 130(1), 317-369.

- **Do patents rights facilitate or impede follow-on innovation?**

- **Empirical strategy:**
  - Staggered shocks using patent invalidations and random allocation of judges in US Court of Appeals for the Federal Circuit

- **Findings**
  - 50% increase in citations to focal patent at invalidation
  - Patent rights block downstream innovation in some areas: computers, electronics, and medical instruments
  - **Effect is driven by large patentees and triggers more follow-on innovation by small firms**

Patent value is uncertain and depends on who is enforcing it.



Nov. 7, 1967 R. W. KEARNS 3,351,836

WINDSHIELD WIPER SYSTEM WITH INTERMITTENT OPERATION

Filed Dec. 1, 1964 3 Sheets-Sheet 1

Fig. 1.

Fig. 2.

MOTOR

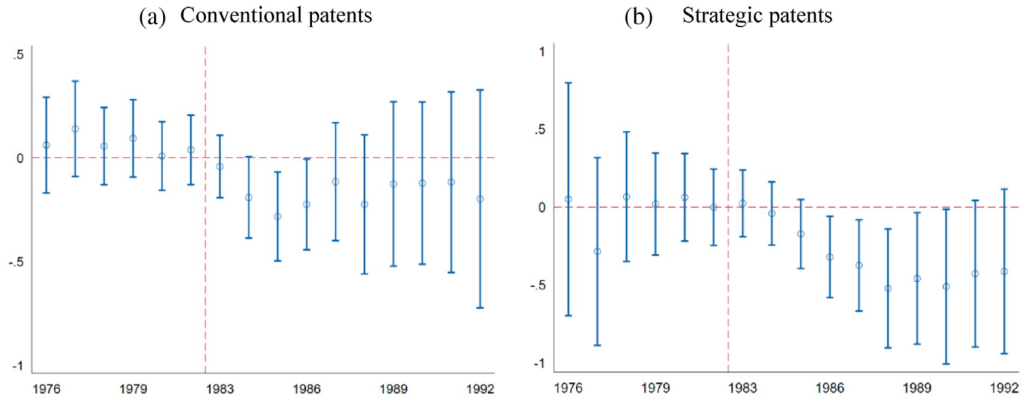
INVENTOR
Robert W. Kearns

BY Lane, Aitken, Dunner & Ziems
ATTORNEYS

Lemley, M. A., & Shapiro, C. (2005). Probabilistic patents. *Journal of Economic Perspectives*, *19*(2), 75-98.

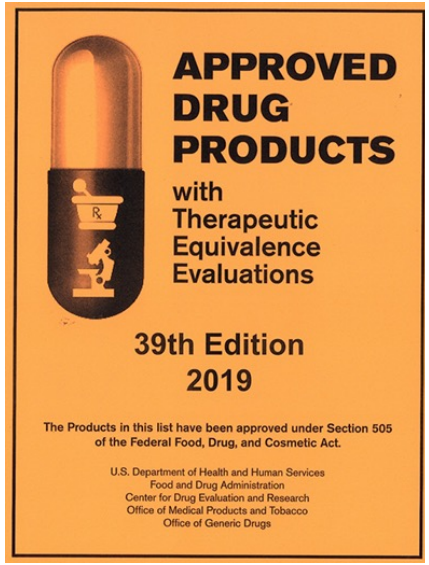
Hou, Y., Png, I. P., & Xiong, X. (2023). When stronger patent law reduces patenting: Empirical evidence. Strategic Management Journal, 44(4), 977-1012.

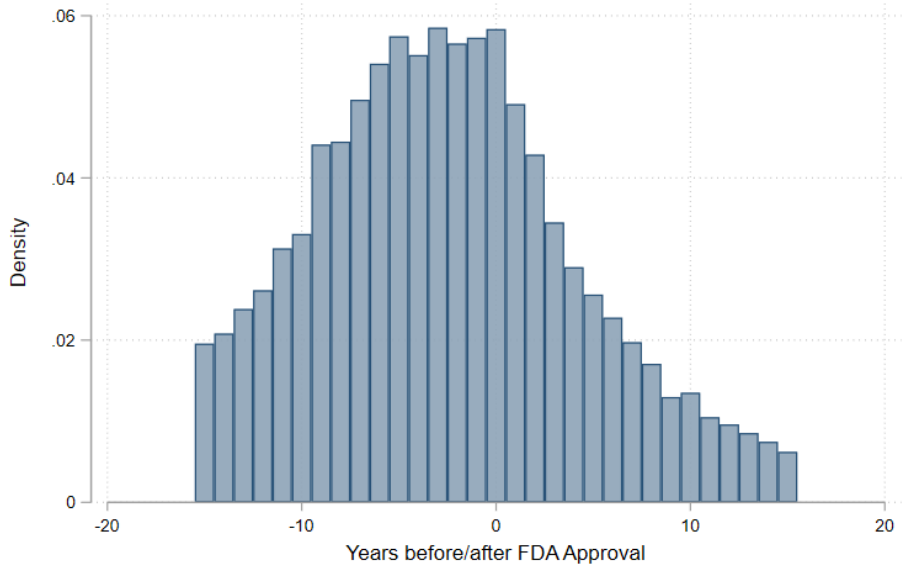
- **How do business adjust strategic patenting to stronger legal protection?**
  - Hypothesis: firms patent portfolios will become smaller because as patents become more effective with stronger legal protection, the gain from having multiple patents would reduce and lead to a lower demand for patents (inframarginal effect)
  - Alternative hypothesis: with stronger legal protection, the effective price of patent protection is lower, so the demand for patents should increase (marginal effect).
- **Shock:** creation of the "pro-patent court" Court of Appeals for the Federal Circuit



“Sharpen your Sword for Litigation: Incumbent Strategic Reaction to the Threat of Entry” Conti, Ortega & Sung. Working paper

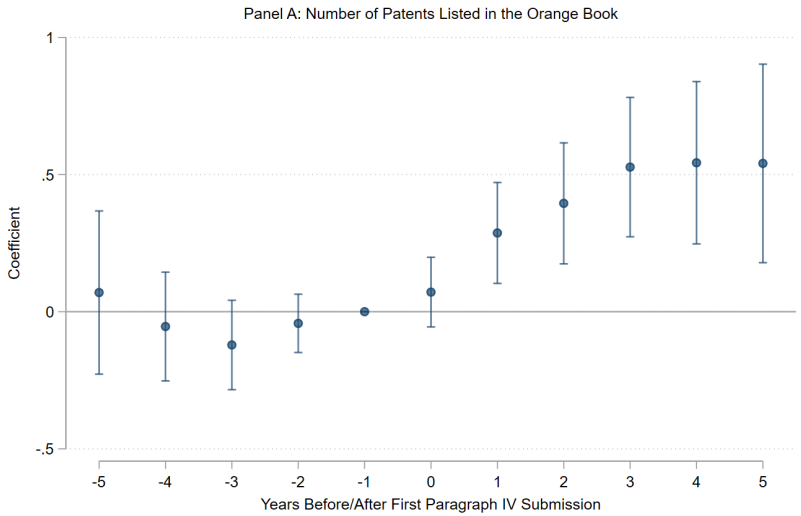
- **FDA drug approval process**

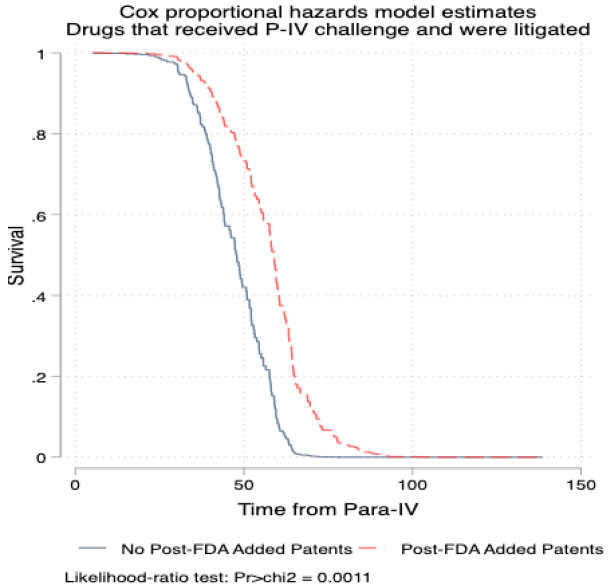




“Sharpen your Sword for Litigation: Incumbent Strategic Reaction to the Threat of Entry” Conti, Ortega & Sung. Working paper

- **Paragraph IV process for generics to challenge patents**





POLICY FORUM

INTELLECTUAL PROPERTY

Science fiction: Fictitious experiments in patents

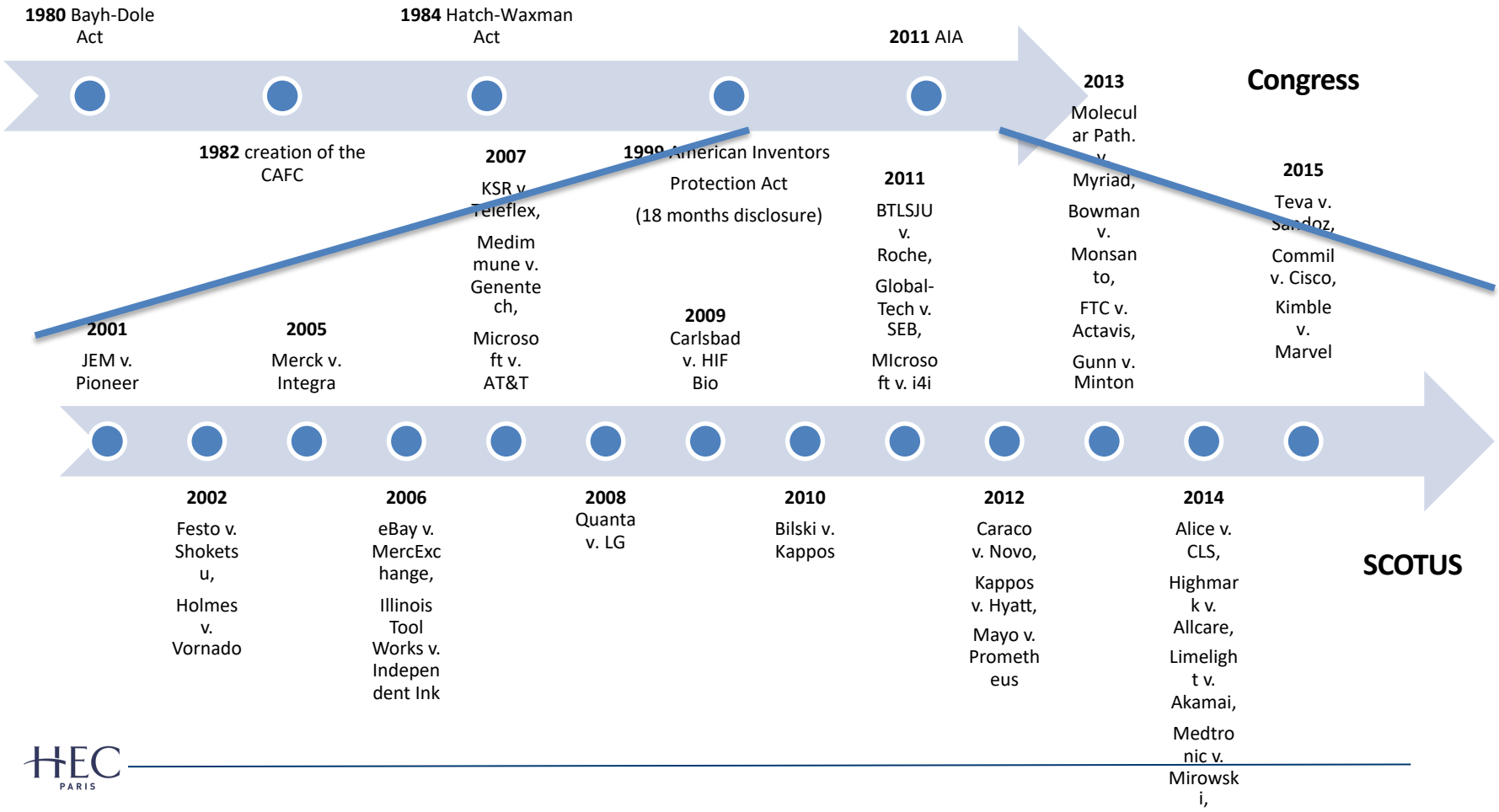
Prophetic examples may unnecessarily distort understanding

By **Janet Freilich**[1] *and*
Lisa Larrimore Ouellette[2]

Although it may surprise scientists, one can receive a patent in many jurisdictions without implementing an invention in practice and demonstrating that it works as expected. Instead, inventors applying for patents are allowed to include predicted experimental methods and results, known as prophetic examples, as long as the examples are not written in the past tense (*1*–*3*). Allowing untested inventions to be patented may encourage earlier disclosures chemistry and biology; an estimated 17% of examples in U.S. patents in these fields are prophetic, and almost one-quarter of U.S. patents in these fields have at least one prophetic example—making prophetic examples a commonplace feature (for examples, see the box) (*7*).

Because of concerns about awarding patents to unproven inventions, prophetic examples are viewed with greater skepticism in Europe (*8*), Canada (*9*), Japan (*10*), and China (*11*). However, because patents with the same contents are often filed in multiple regions, prophetic examples originating in U.S. applications will often

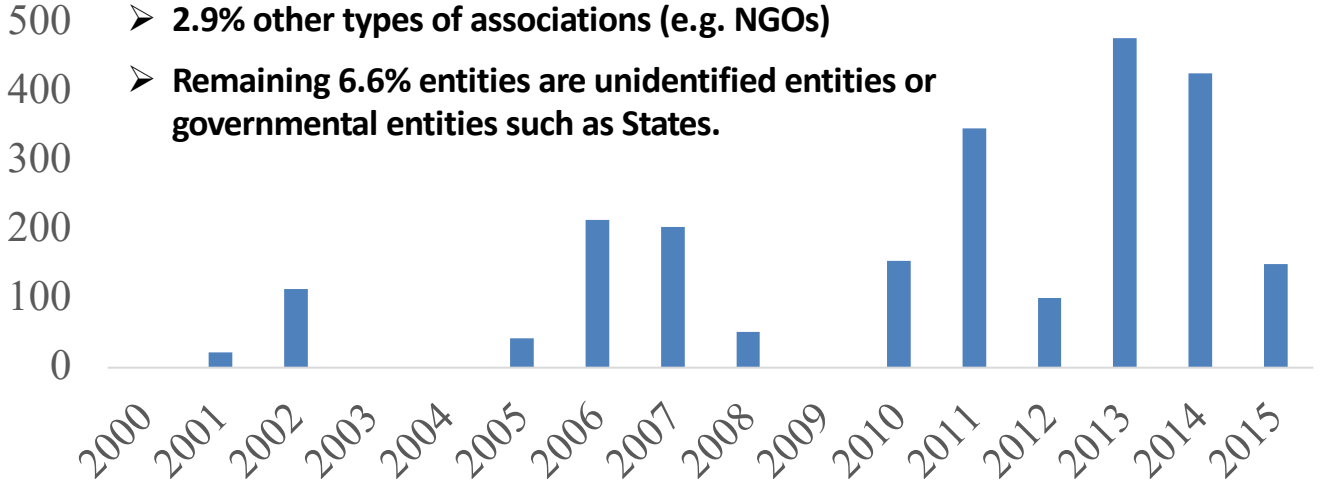
Freilich, J., & Ouellette, L. L. (2019). Science fiction: Fictitious experiments in patents. *Science*, *364*(6445), 1036-1037.


1980 Bayh-Dole Act
1984 Hatch-Waxman Act
2011 AIA
Congress
1982 creation of the CAFC
2007
KSR v. Teleflex,
Medimmune v. Genentech,
Microsoft v. AT&T
1999 American Inventors Protection Act
(18 months disclosure)
2011
BTLSJU v. Roche,
Global-Tech v. SEB,
MIcrosoft v. i4i
2013
Molecular Path. v. Myriad,
Bowman v. Monsanto,
FTC v. Actavis,
Gunn v. Minton
2015
Teva v. Sandoz,
Commil v. Cisco,
Kimble v. Marvel
2001
JEM v. Pioneer
2005
Merck v. Integra
2009
Carlsbad v. HIF Bio
2002
Festo v. Shoketsu,
Holmes v. Vornado
2006
eBay v. MercExchange,
Illinois Tool Works v. Independent Ink
2008
Quanta v. LG
2010
Bilski v. Kappos
2012
Caraco v. Novo,
Kappos v. Hyatt,
Mayo v. Prometheus
2014
Alice v. CLS,
Highmark v. Allcare,
Limelight v. Akamai,
Medtronic v. Mirowski,
SCOTUS

US Supreme Court Amicus briefs on patent-related cases

2307 stakeholder-year observations (1163 distinct stakeholders)

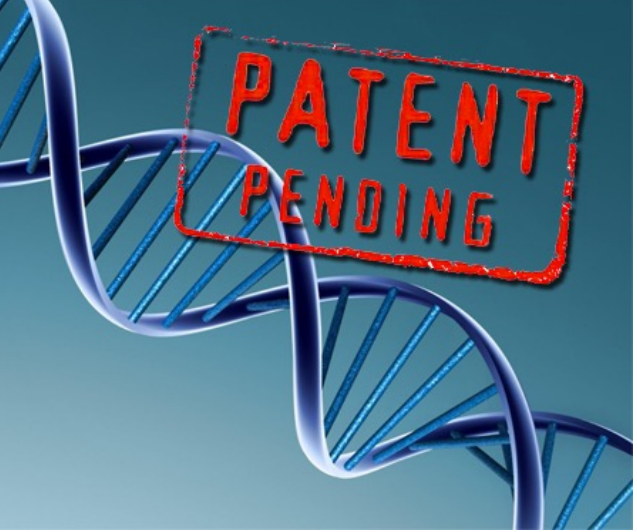
- **50.1% firms, 7.6% associations of firms**
- **23.2% individuals - academics**
- **5.3% academic institutions (e.g. universities)**
- **4.2% other individuals (e.g. inventors)**
- **2.9% other types of associations (e.g. NGOs)**
- **Remaining 6.6% entities are unidentified entities or governmental entities such as States.**



Endogeneity problem?

Endogeneity solution!

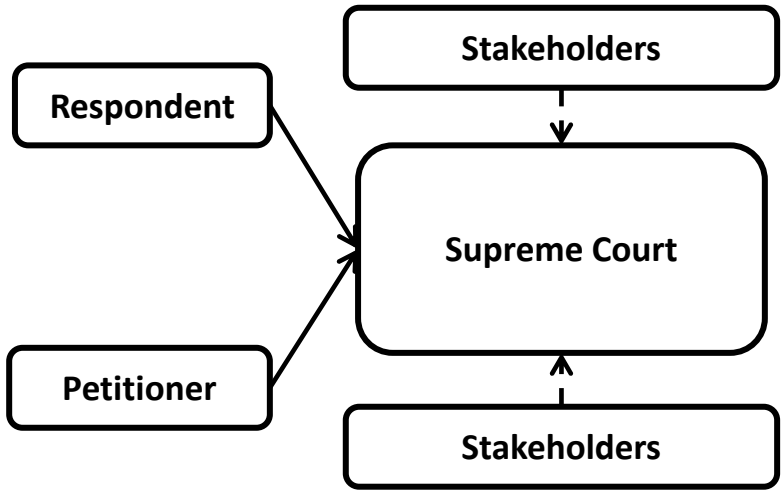
Corporate Political Activities & Innovation


PATENT
PENDING


046
mph
AI
Autonomous
Driving


ARTIFICIAL
INTELLIGENCE
ChatGPT

“Corporate Political Activity at the U.S. Supreme Court: Interested Organizations Arguing with Disinterested information” Sung & Walsh. Working paper



Parties’ briefs

Amicus brief(s)

Court’s Opinion

EMPIRICAL SETTING: PATENT POLICY IN THE US SUPREME COURT

- **Patent policy is retroactive: new decisions apply to stock of existing patents**
  - **Measure of dependence (or vested interests) = stock of patents**

- **Increasingly fast-pace of technological change → Traditional law-making fails to keep up → Disputes arise → Court rulings become legal precedent**
  - **SUPREME COURT = DE FACTO POLICYMAKERS for issues related to new technologies since 2000** (Holbrook, 2013)

- **Supreme Court Justices**
  - **No financial interest, No constituency issues.**
  - **A key objective for judges is to maintain legitimacy** (Fowler & Jeon, 2008; Gibson & Baird, 1998; McCubbins et al., 2005)
  - **Need to support decisions with quality information**

- **Patent policy & High-tech → strong information asymmetry**
  - **Little technological expertise in US Supreme Court (cf. CFAC)**
  - **Little expertise in patent law in US Supreme Court** (Dyk, 2016)

- **Patent Policy is largely a non-partisan issue** (Sag et al. 2009)
  - **22 out of 31 cases over 2000-2015 unanimously decided**

Amicus briefs

2006 WL 235005 (U.S.) (Appellate Brief)
Supreme Court of the United States.

EBAY, INC. and HALF.COM., INC., Petitioners,
v.
MERCEXCHANGE, L.L.C., Respondent.

No. 05-130.
January 26, 2006.

On Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

Brief of Amicus Curiae Nokia Corporation in Support of Petitioners

***1 I. THE INTEREST OF AMICUS CURIAE NOKIA CORPORATION**

Nokia Corporation ("Nokia") is one of the largest manufacturers of wireless telecommunications equip
world.[1] In North America alone, Nokia sold more than 141 million mobile phones in 2004.[2] Nok
approximately 55,000 people worldwide, more than 20,000 of whom work in research and development. A
this substantial commitment to technological progress, Nokia owns more than 4,000 U.S. patents.

Nokia has recently been involved in numerous patent lawsuits, as both a plaintiff and defendant. Nokia is
significant patent owner that might seek an injunction to protect its patent rights, and a manufacturer in ar
which patent owners routinely issue threats of injunctions for patent infringement.

III. ARGUMENT

A. The Decision Below Thwarts Congress's Efforts To Attain the Constitutional Goals of Patent L

The constitutional goal of patent law is the socialutilitarian promotion of technological innovation for pu
"To promote the Progress of … useful Arts." U.S. Const. Art. I, § 8, cl. 8. Ironically, the path to encoura
and public enjoyment of innovation required by the U.S. Constitution is to limit public access to inventior
inventors certain exclusive rights to their technology. *Id.* These exclusive rights allow patent owners to ca
the value of their inventions and thereby provide the incentives necessary to support innovation. *See Bon*
v. Thunder Craft Boats, Inc., 489 U.S. 141, 150-51 (1989); *Diamond v. Chakrabarty*, 447 U.S. 303, 307 (1
Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 511 (1917).

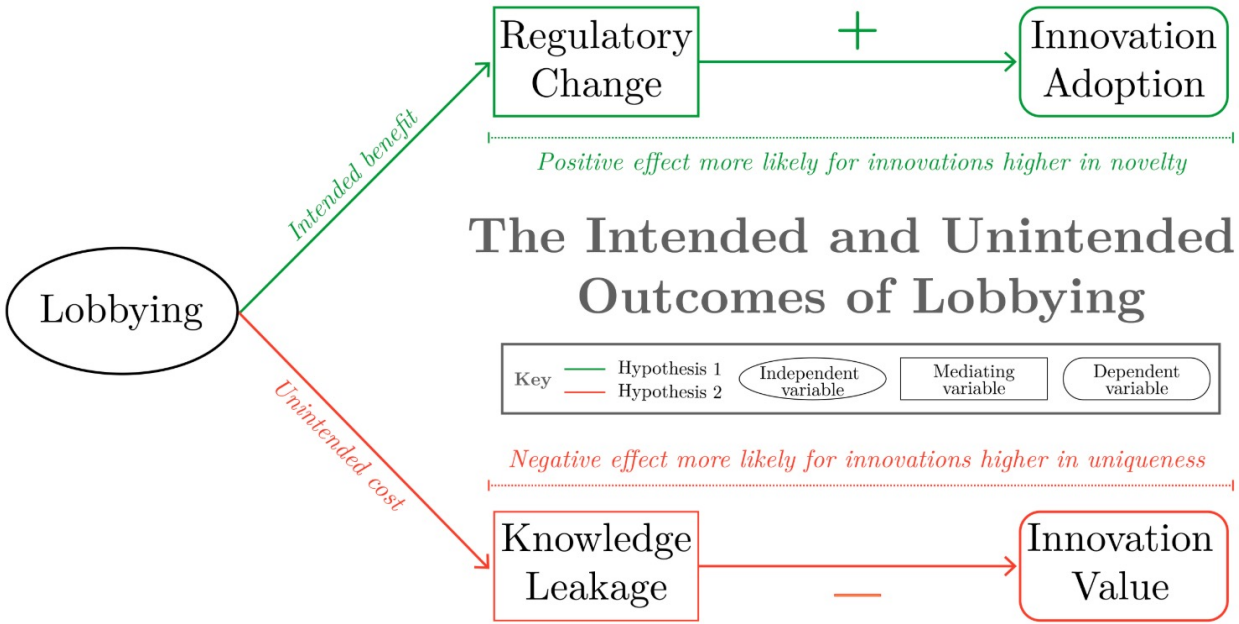
Gao, C., & McDonald, R. (2022). Shaping nascent industries: Innovation strategy and regulatory uncertainty in personal genomics. Administrative Science Quarterly, 67(4), 915-967.

- **How do new ventures navigate regulatory uncertainty?**
  - Survival and growth

- **Difference with established firms in mature industries.**
  - Limited resources
  - Limited market power
  - Operate in novel domains in which the rules of the game are underdeveloped

- **Research setting: Case studies in Direct-to-Consumer Personal-Genomics Industry. 5 firms over 4 years.**
  - Framework highlighting how ventures' strategies vary and theorizes why certain strategies appear more effective than others.
  - Power logic vs. Industry-evolution logic
    - Anticipate, Acquiece, Compromise, Avoid, Defy, Manipulate
    - Experiment and crafting to push boundaries of regulatory uncertainty, pivot product categories

”Caring but sharing unintentionally: Lobbying for innovations and the leakage of knowledge” Michael Park. Working Paper.



Thank you

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