

IP Literature Watch

CRA Charles River
Associates

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This newsletter contains an overview of recent publications concerning intellectual property issues. The abstracts included below are as written by the author(s) and are unedited.

IP & Antitrust

Third-Party Determination of Interim Licenses and Security Payments: A German Approach to the Huawei Framework

Peter R. Slowinski (Adam Mickiewicz University - Faculty of Law and Administration; Max Planck Institute for Innovation and Competition; Weizenbaum Institute for the Networked Society)

Fabian Hoffmann (Bundesgerichtshof (Federal Court of Justice))

Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6977682

Litigation of Standard Essential Patents (SEPs) takes place in Europe within the framework provided by the CJEU in its landmark decision Huawei v. ZTE. However, Courts in Europe are still struggling to find the best approach for the resolution of these disputes. German courts and the UPC rely on competition law and a determination of whether the parties have been willing to conclude a license. British courts focus on the setting of license terms but their approach is not entirely convincing, either. This article shows an alternative way forward based on instruments from German civil law that use third-party determination of contract terms. It combines these instruments with a preliminary calculation of a security and down-payments to provide parties with an interest-oriented way forward. The proposed third-party determination of FRAND terms is deliberately not a final determination but limited to the interim period before a final agreement. This preserves the autonomy of the parties while supporting them in the settlement process and it does not affect the right to be heard in court. Moreover, the obligation to demonstrate willingness to grant or take a license entails the necessity not to reject the other party's proposal for a third-party determination for the interim period. And in infringement proceedings it increases the pressure to negotiate constructively to reach a FRAND compliant agreement. While the method is based on German civil law, it is transferable to other legal systems and can be equally applied in the Unified Patent Court.

IP & Licensing

Licensing Negotiation Groups in Standard Essential Patent Licensing: An Assessment under Article 101 TFEU

Tuulia Ferm (Ericsson)

Ezequiel Escobedo Osorio (Max Planck Institute for Innovation and Competition, Students)

Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=7003278

The paper examines the compatibility of licensing negotiation groups (LNGs) with Article 101 TFEU in the context of standard essential patent (SEP) licensing. While LNGs have been proposed as a mechanism to improve efficiency in licensing negotiations, their introduction raises important competition law questions. The analysis considers the framework set out in the European Commission's revised Technology Transfer Guidelines and explores how it applies to the specific characteristics of SEP licensing. In particular, it highlights challenges related to market definition and the assessment of buyer power. The paper further discusses the conditions under which LNGs may generate efficiencies and deliver benefits to consumers. Against this background, it identifies areas where further clarification and empirical evidence may be needed to ensure a consistent and balanced application of competition law.

IP & Litigation

An Empirical Study of Artificial Intelligent Patent Litigation

Amy Semet (SUNY, University of Buffalo)

Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=7076699

Artificial intelligence (AI) is now at the heart of modern innovation, but we know surprisingly little about how AI patents perform when they are challenged in U.S. district courts. This Article offers the first large-scale empirical study that connects the U.S. Patent and Trademark Office's (USPTO) AI patent database with an originally constructed database of district court outcomes. Using several different methods to identify AI inventions, the study builds tiered measures that classify AI inventions at increasingly levels of confidence. It then examines how these patents fare in court on issues such as invalidity and infringement within the subset of cases decided on the merits.

The results show a clear and consistent pattern. Conditional on reaching a contested merits outcome, AI-related patents are significantly more likely to be invalidated than similar non-AI patents, a result that holds across multiple ways of defining AI as well as numerous control variables. When broken down by legal doctrine, the higher invalidation rate is driven mainly by section 101 subject-matter eligibility. Further, AI inventions are less likely to a statistically significant degree to be found obvious under by section 103. At the same time, AI patents are less likely to yield findings of infringement conditional on a merits-only sample of cases, suggesting they face a double hurdle in litigation: AI patents are easier to invalidate and harder for the patentee to hold an alleged infringer accountable for any infringement.

Crucially, these patterns are not simply the result of AI patents being a substantial subset of software patents. Even when AI software patents are compared directly with non-AI software patents, AI patents remain more likely to be invalidated and less likely to succeed on infringement when examining cases that

reach a merits resolution. This indicates that courts appear to be treating AI inventions as a distinct—and particularly vulnerable—category within the broader software space.

These findings carry important implications for innovation policy and patent law. As AI technologies become increasingly central to the economy, the current legal landscape may be systematically disadvantaging a key class of emerging inventions. The Article concludes by exploring possible doctrinal explanations and the need for greater clarity in how patent law is applied to AI-enabled technologies.

IP & Innovation

Patent Valorization and Business Performance: Evidence from an Italian Public Policy

Paolo Castelnovo (University of Insubria)

Cinzia Lombardo (Freelance)

Valentina Morretta (University of Milan)

FEEM Working Paper No. 18-2026

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=7018161

This paper evaluates the effectiveness of a public policy intervention introduced by the Italian government to support the economic valorization of patents held by small and medium-sized enterprises (SMEs). Using original survey data collected in 2025, the analysis compares firms that benefited from the measure during the 2020-2021 calls with a control group of comparable non-beneficiary firms. The study examines patenting behavior, strategies for patent valorization, perceived obstacles, and innovation-related outcomes beyond traditional financial indicators. The results show that the measure effectively increases patenting activity and supports technological maturation, particularly for smaller, younger, and more resource-constrained firms, without crowding out private investment. Rather than directly boosting short-term financial performance, the measure acts as an enabling instrument by strengthening internal capabilities, know-how, and innovation processes, helping firms bridge the gap between invention and market readiness. While impacts on internationalization and market-based patent valorization remain limited, the intervention represents an effective component of a broader SME-oriented innovation policy mix.

AI, Innovation and the Future of the Patent System

Nikolaus Thumm (Organisation for Economic Co-operation and Development; Technische Universität Berlin (TU Berlin))

Gabriel Glänte (UC Berkeley Haas School of Business, UC Berkeley Haas School of Business; AI Sweden)
Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=7003598

Artificial intelligence is reshaping how inventions are created and how the value of innovation is appropriated, raising fundamental questions for the patent system. Drawing on twenty-seven semi structured interviews with practitioners operating at the frontier of AI-intensive research and development, intellectual property strategy, and patent practice across the United States and Europe, this paper examines two analytically distinct questions: how patents affect AI innovation, and how AI affects the patent system. It finds that the most commercially valuable AI assets, including training data, model weights, and engineering pipelines, are typically protected through trade secrecy rather than patents, with firms combining protection mechanisms across the layers of the technology stack. At the same time, AI tools are transforming patent workflows, including translation, prior art search, drafting, and examination. AI is also placing pressure on core patent doctrines, including the person-skilled-in-the-art standard, inventive step, disclosure, and

inventorship. The paper introduces two conceptual frameworks - the Patentability-Value Gap and the Volume-Cost Scenario Matrix - as tools for structuring future research and policy discussion, and embeds comparative observations on the USPTO and EPO throughout. The analysis is exploratory and is offered as a structured snapshot of expert perspectives during a formative period, with each chapter identifying open questions for further empirical, doctrinal, and policy research.

Political Uncertainty and Artificial Intelligence Innovation: Evidence from U.S. Patent Data*

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Yikai Zhao (Tohoku University - Graduate School of Economics & Management)

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Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6983098

This study examines the impact of political uncertainty on artificial intelligence (AI) innovation. Using data from the Artificial Intelligence Patent Dataset released by the U.S. Patent and Trademark Office and U.S. House election data from 2008 to 2023, we show that increases in political uncertainty significantly inhibit AI development, as reflected in a declining share of AI-related technological components in patents. This result remains robust across a wide range of robustness checks. Our analysis further indicates that the effect of political uncertainty on AI innovation varies with political environment, levels of AI task exposure and market concentration. Furthermore, by exploring the underlying mechanisms, we find that labor unions, entrepreneurial activity and labor mobility play important roles in shaping the relationship between political uncertainty and AI innovation. Our results show that while the presence of labor unions is associated with enhanced AI innovation, under conditions of political uncertainty, unionization exacerbates the negative impact of political uncertainty on AI development. We further show that labor mobility mitigates the negative effects of political uncertainty on AI innovation, potentially suggesting that enhancing labor market flexibility may help reduce the negative influence of political uncertainty and potentially offers implications to both the government and firms.

Plural Pathways of Adaptation: A Typology of Chinese Listed Firms' Responses to the 2021 Patent Reform

Emmanuel Labarbe (University of Bordeaux - Michel de Montaigne University Bordeaux 3; Domaine Universitaire)

Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6913878

This article examines how Chinese listed firms have adapted to the 2021 reform of the patent subsidy system, which removed filing-stage subsidies and restricted future support to granted invention patents. Drawing on 1,792,943 patents from 1,256 Main Board listed firms (validated at 92.9% against the CPDP reference), the analysis documents three stylized facts with direct implications for the monitoring and forecasting of innovation policy effectiveness. First, the aggregate slowdown is barely perceptible (-0.33 pp) but masks a sharp divergence between patent types: invention patents accelerate (+4.28 pp) while utility models switch from growth to decline (-7.55 pp), a recomposition invisible in standard aggregate analyses. Second, hierarchical clustering on the 50 largest filers reveals nine qualitatively distinct adaptation profiles, including digitalization-substituting firms and stable industrial giants as two contrasting resilience pathways. Third, a cross-sectional test rejects digitalization as a general mechanism ($r = -0.29$, $p = 0.05$), bounding its scope to a specific subset of firms. The findings carry implications beyond the Chinese case. For the

evaluation of innovation policy in emerging economies, they show that mean-effect approaches can systematically miss substantial qualitative recompositions and call for typological complements. For technology forecasting, they suggest that filing volume is a fragile proxy when incentive metrics change, and that the structural heterogeneity of firm-level adaptation pathways constitutes a feature of innovation systems undergoing institutional transitions that monitoring frameworks should explicitly capture.

IP Law & Policy

The State of AI and Intellectual Property – A Thematic Scientometric Assessment

Gergely Ferenc Lendvai (Eötvös Loránd University; Independent)

Péter Mezei (University of Szeged, Institute of Comparative Law and Legal Theory; Vytautas Magnus University - Faculty of Law)

Anett Pogácsás (Peter Pazmany Catholic University)

SN Social Sciences (2026) 6:240

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6911222

This study presents a comprehensive scientometric analysis of the scholarly discourse on artificial intelligence and intellectual property law between 2013 and 2023. Drawing on metadata from Scopus, the research employs advanced bibliometric tools to map trends, publication patterns, and thematic clusters in the field. Our results reveal a dramatic surge in academic output post-2019, showing an accelerated scholarly interest, especially in light of generative AI's emergence. The CiteSpace-based analysis identifies three dominant research clusters: (1) AI and Copyright Law, focusing on authorship, originality, and text/data mining; (2) AI and Digital Rights, exploring identity, privacy, and ethical dilemmas; and (3) AI and Patent Law addressing inventorship, patentability, and system reform. Furthermore, we also expose geographical disparities, with the United States and United Kingdom dominating the field of AI and IP law, alongside severe under-representation of Global South-affiliated authors within Scopus-indexed, English-language journal publications. A key finding is that despite growing regulatory responses, such as the EU AI Act and US Copyright Office guidelines, legal consensus remains elusive. In sum, the article at hand aims to offer a state-of-the-field mapping of Scopus-indexed scholarship at the AI-IP interface via consolidating the field's "visible contours," while identifying underexplored thematic and geographic areas for future interdisciplinary inquiry.

An Analysis of Intellectual Property Rights in Nigeria's Fashion Industry

Chiamaka Egenti (Clp legal)

Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6944539

Despite the Supreme Court's textualist turn in recent decades, the Court has been far less textualist in intellectual property cases. Recent scholarship has criticized the Court's less textualist approach in patent cases. This article first observes that the Court's lack of strict textualism is not limited to patent cases, but extends to intellectual property more generally. Moreover, the trend is far from limited to the Court's less textualist judges; even Justice Scalia, the canonical textualist, was notably less textualist in IP cases.

This article describes the Court's predominant approach in IP cases as "common law purposivism," given that it draws heavily on the law's policies and purposes, as explicated and developed in common law fashion by prior judicial decisions. In contrast to recent scholarship, this article defends the Court's less textualist approach in IP cases.

Scholars have argued that the use of common law in statutory interpretation may be appropriate when the statute is written in vague or terse language, and enacted against a common law backdrop. Under relatively modern purposivist and jurisprudential theory, such vague or terse statutory language can be seen as a Congressional delegation to the Courts to flesh out the implemental details of the statutory scheme.

While these characteristics hold true in many IP cases, this article identifies an additional important justifying factor: the richness and complexity of the common law backdrop far outweigh that of the statutory language enacted or reenacted against that backdrop. This characteristic helps to justify common law purposivism in many (but not all) IP cases, not based on the often stated presumption that Congress is aware of the common law backdrop, but rather based on the opposite, more realistic presumption: that Congress was likely unaware of the full complexity of the common law, and thus should not be presumed to have disrupted it absent a clearly expressed intention to do so.

Copyright Law

How AI Unmakes Images – The Legal Aesthetics of Copyright

Severine Dusollier (SciencesPo)

Nicolas Malevé (Sciences Po)

Forthcoming in George Washington Journal of Law and Technology

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6926181

In multiple instances, ongoing legal controversies related to generative AI lay bare the limits of the existing copyright framework. Artists are claiming copyright for images they create using generative AI tools and right owners are suing AI companies for their unauthorised use of their works as training data. This paper explores how the construction and ontology of legal categories of copyright stumble against the operations of AI. Beyond the simple application of copyright law to AI, it looks at how law understands and perceives the objects produced by generative technologies, and particularly images, in a way that questions its epistemology. The law creates an aesthetics in order to “see” images and “produce” images as singular objects worthy of legal protection. The complexity of this legal aesthetics increases when it has to contend with generative AI, an actor that understands images on very different premises. Under the computational paradigm governing generative AI, images are un-made: they lose their strength as singular entities expressing an intention and gain power in aggregates or ensembles. Far from being a pure epistemic question, the divergent understanding of the visual by the law and the platforms promoting generative AI forms the ground of legal controversies whose outcome will affect durably the relations between creators, right owners and the AI industry.

To address these issues, we begin with the analysis of the historical precedent of photography to discern a series of enduring dissociations between machine, technique and author. These dissociations applied by the law to generative AI suppress human author’s agency today in the same way they did for photography in its inception. In this light, we examine the legal response to the current claims of copyright protection for AI generated works, through a close reading of case law and US copyright registration documents. After that, we turn our attention to the legal controversies surrounding the use of images as training data, by looking into how plaintiffs and defendants trace the trajectories of images throughout the process of generation and resort to visual comparisons. The opacity of algorithmic generation produces a host of speculations about the visual, the author’s disappearance, or the loss of relevance of the image as a singular object and its rise as an aggregate. Through a discussion of the ambivalent notion of style, we argue that authors remain

significant actors in the process of image generation, albeit in a 'spectral' form where they are neither absent nor present in terms that can be assimilated by the current terms of copyright law. With works of authorship becoming elusive or transformed into data, copyright becomes largely inoperative (without an opera, a work, in its etymological sense) which leads to difficult dilemmas. As the criteria for copyright protection become wobbly and as its aesthetics of attribution are challenged, we are facing an impossible choice: to either embrace a computational paradigm that amputates copyright of most of its legal reach and turn a blind eye to the current predicament of creators; or to extend copyright protection, hence expanding dramatically its scope. In our final conclusion, we suggest to rethink the notions of work and of authorship to restore the operation of copyright in a generative AI environment, to try and reconnect the algorithmic generation of images to the ongoing socio-material and cultural networks and practices nourishing and constituting them.

Copyright Disincentives

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58 Ariz. St. L.J. 307

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=7019938

Over the last decade, a spate of high-profile copyright infringement lawsuits rattled the music industry. Controversy followed in the wake of multi-million-dollar damages awards, with criticism emanating from courts, scholars, and musicians alike. The basic logic of the critique is sound: the specter of such massive liability for small and inadvertent similarities disincentivizes the creation of new music. But the disincentive effect remains curiously under-theorized. This Article develops the literature's first nuanced account of this disincentive theory, drawing on analysis of hundreds of copyright dockets as well as interviews with musicians to show that the feared disincentive has not come to pass.

In doing so, this Article makes several contributions to the copyright literature. First, it provides a necessary deconstruction and explication of the disincentive theory currently lacking in the literature. Second, it brings to bear substantial new evidence on the state of infringement litigation in the music industry, going well beyond the small handful of widely reported jury trials. Specifically, this Article analyzes an original dataset culled from the dockets of hundreds of infringement actions, supplemented by interviews with musicians, to assess whether high-profile litigation translates into disincentives across the field. Both lines of inquiry show that disputes take place only at the highest end of the market. Third, it extrapolates from both theory and evidence to shed new light on both the feared disincentive effect and responsive policy prescriptions. Theoretically, the absence of a disincentive effect permits further consideration of the goals and effects of the infringement remedy. This Article posits that infringement litigation might serve beneficial distributive ends and develops a limitation on damages in certain cases to mitigate the rise of financialization and opportunistic suits in the music industry.

Copyright and AI Generated Output in the UK

Nicola Lucchi (Universitat Pompeu Fabra - Department of Law)

Enrico Bonadio (City University London, The City Law School)

In R. Abbott and E. Rothman (eds.), Elgar Concise Encyclopedia of Artificial Intelligence and the Law, Edward Elgar, 2025, pp. 133–137.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6967718

This entry explores the legal status of AI-generated creations under UK copyright law, highlighting challenges in recognizing AI as author. It examines the implications for traditional copyright frameworks, emphasizing the need for legislative adaptation and judicial interpretation to keep pace with AI's evolving role in creativity and ownership.

Copyright Enforcement In The Digital Age: Lessons For Nigeria's Music Industry Under The Copyright Act 2022

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Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6940059

The Nigerian music industry has witnessed remarkable growth in recent years, placing the country at the forefront of the global music scene, especially with the popularity of Afrobeats. However, despite this success, the enforcement of copyright laws remains a significant challenge. Nigerian musicians and producers often face issues such as piracy, unauthorised usage, and inadequate compensation, which affect their ability to fully benefit from their creative works. Existing legal frameworks, including the Nigerian Copyright Act, are designed to protect the rights of creators, yet the reality of enforcement reveals significant gaps, particularly in the context of digital platforms and the global nature of the music industry. This essay explored the enforcement of copyright laws within the Nigerian music industry, focusing on the practical challenges and limitations of the current Copyright Act. By analysing the role of relevant stakeholders-such as the Nigerian Copyright Commission, music lawyers, artists and repertoires (A&Rs), producers, and executives-the essay provided insights into the weaknesses of existing enforcement mechanisms and proposed strategies for improvement. This research adopted a doctrinal methodology, analysing primary legal sources such as statutes, case law, and international treaties, alongside secondary sources including academic texts, journal articles, and industry reports. Comparative analysis with enforcement practices in other jurisdictions was also employed to identify global best practices and highlight areas for reform in the Nigerian context. These recommendations are valuable for legal practitioners, policymakers, artists, and music industry stakeholders looking to protect their copyright laws in an increasingly digital and globalised world. It concluded that through improved enforcement, the Nigerian music industry can achieve long-term sustainability, ensuring that creators are rewarded for their work and that the industry continues to thrive.

IP & Trade

Parallel Institutions for Inventions: A Soviet Lesson for Expanding Sovereignty under TRIPS

Svitlana Lebedenko (University of Warwick; European University Institute)

Forthcoming in Research Handbook on Sovereignty and Dependence in Intellectual Property Rights, ed. Cristiana Sappa (Cheltenham: Edward Elgar Publishing).

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=7153399

This chapter responds to the theme of sovereignty and dependence in intellectual property rights by introducing the concept of “parallel institutions,” examined from empirical and normative perspectives. It argues that parallel institutions are a largely overlooked strategy of national sovereignty in the regulation of innovation markets. This argument is developed in two steps. First, the concept of parallel institutions is situated within a broader discussion on legal pluralism and the policy space that states retain under the TRIPS Agreement. Second, the chapter illustrates this concept through the Soviet regulation of inventions, which managed inventor's certificates and patents as parallel institutions. The chapter's underlying idea is that parallel institutions widen the range of instruments available to actors in the national innovation system, allowing states to tailor innovation policy within the existing international framework.

Other Topics

Salvaging Innovation From Extinction

Brenda M. Simon (California Western School of Law)

98 *University of Colorado Law Review* (forthcoming 2027)

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=7067078

Environmental decline has widespread and devastating consequences. Its effect on scientific research remains an underexplored negative externality and provides an additional reason to take protective action. The natural world has already inspired life-saving therapeutics, such as Taxol and GLP-1 drugs, but mass extinction threatens to eliminate countless potential candidates for new therapeutics before scientists can even identify them. While mitigating environmental harm *ex ante* is an ideal approach, collective action problems have hindered its implementation. Innovation policy should therefore advance existing efforts by prioritizing research, conservation, and information preservation related to these natural resources.

This Article sets forth a framework focused on three goals: simplification, safeguarding, and scrutiny. To promote simplification, it proposes that the patent office establish an expedited examination program for applications that build upon natural products or support their conservation. With regard to safeguarding, it considers how the patent office could also help preserve valuable information related to such inventions by requiring applicants to make a good faith disclosure of traditional knowledge upon which they substantially rely as a condition of participating in the expedited examination program. For the last goal of scrutiny, it recommends that regulators continually evaluate the effects of these incentives on both innovation and environmental loss. While accelerating natural products research may have adverse environmental effects, such as by encouraging greater use of energy-intensive AI, the potential benefits may outweigh these risks given the possibility that future life-enhancing treatments could be lost forever. A practical approach to innovation policy will complement global efforts to address environmental decline by preserving opportunities for discovery and information before they disappear.

Platforms as Enforcement Infrastructure: Copyright in China's Online Music Market

Shitong Qiao (Duke University School of Law)

American Journal of Comparative Law, forthcoming

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=7044298

Between 2012 and 2018, China's online music market transformed from a piracy-dominated environment into one of the world's largest licensed digital music markets. This Article explains that transformation through the concept of platforms as enforcement infrastructure, emphasizing platforms' capacity not only to regulate their own users but to project legal enforcement beyond their individual domains and across the broader internet ecosystem, through both formal legal processes and informal enforcement channels.

Drawing on legal and regulatory analysis and an original dataset of copyright infringement judgments, the Article argues that three interrelated conditions made large-scale enforcement possible: consolidated state capacity to discipline major platforms; the prospect of market concentration that incentivized platforms to invest in the purchase and enforcement of exclusive licenses; and the technological, financial, and legal capacity of platforms to enforce copyright at scale. Under these conditions, platforms became central to the practical operationalization of copyright beyond their own domains. At the same time, this enforcement model generated structural costs, including heightened market concentration and the expansion of content control.

Monetary Tightening and the Divergence in Firm Innovation: Who Cuts Back and Who Pushes Forward?

Shuwen Wang (Columbia University - Columbia Business School, Finance)

Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6937999

I document that monetary policy exerts heterogeneous impacts on firm innovation efforts, and could contribute to market and R&D concentration. Controlling for financial constraints and various firm-level characteristics, a 100 basis point rate hike leads firms with 1% higher existing patent values (innovative firms) to reduce their R&D spending by 4% less than firms without patent values (non-innovative firms). This 4% gap slightly narrows but remains significant at 2.2% level after 12 quarters. Frontier firms-those generating the highest patent values within their sector-even increase their R&D spending by 2.2%, while their peers cut back R&D by 7.1% one quarter after the tightening shock, resulting in a clear divergence in R&D responses. Their sustained R&D activity is financed through additional equity issuance following the tightening. This divergence primarily stems from innovative firms' high marginal value of R&D investment. Additionally, innovative firms are particularly sensitive to R&D cuts, as such reductions may signal them as being non-innovative. When monetary policy raises interest rates, less innovative firms tend to adopt existing technologies due to higher marginal costs, whereas innovative firms persist in developing new ideas. Such monetary tightening further exacerbates the divergence, potentially widening the innovation gap in the future.

Lead Time and Innovation

Dong Cheng (Colgate University)

Michael A. Klein (Rensselaer Polytechnic Institute)

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Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6899159

Using data from the Chinese Patent Survey, we document that the perceived importance of lead time advantages over competitors varies substantially across firms and is negatively associated with firms' preferences for patents relative to trade secrecy. We study this relationship formally in an endogenous growth model in which innovation-specific lead time influences firms' decision to patent their innovation or to keep it secret. We find that innovators with sufficiently strong lead time choose secrecy to avoid information disclosure, while those with weaker lead time patent to facilitate licensing revenue. Intellectual property policy affects growth through the expected value of innovation and firms' endogenous patent propensity, which determines the extent of patent thickets that impose a licensing burden on future innovators. We show that when firms have access to effective informal protection, strengthening patent protection may encourage patenting without fostering innovation, consistent with the empirical pattern known as the patent puzzle.

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*The editor would like to acknowledge the contributions of **Rachel Zhou**.*

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