

RESEARCH BRIEF

The Role of Patent Litigation in Declining Economic Dynamism

by Connor O'Brien

This brief outlines findings from Trends in US Business Dynamism and the Innovation Landscape (2023) by Ufuk Akcigit, Sina Ates, and Craig A. Chikis.

Summary

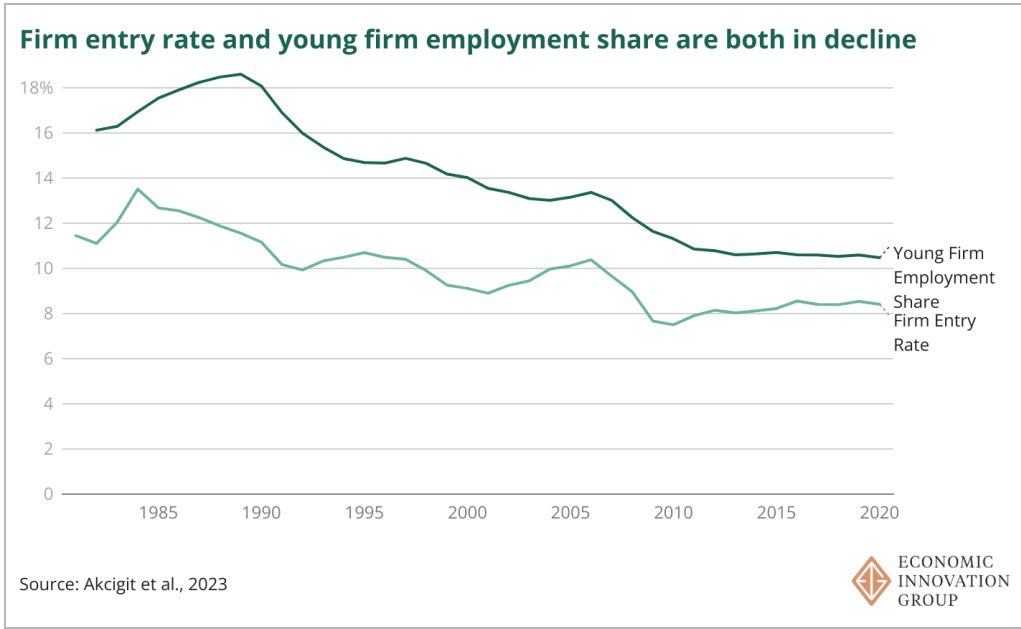
American economic dynamism has been in decline for most of the 21st century, and several decades prior, according to a new paper by Ufuk Akcigit of the University of Chicago, NBER, and CEPR, Sina Ates of the Federal Reserve Board, and Craig Chikis of the University of Chicago. This decline is apparent across a variety of important measures. Declining knowledge diffusion offers a unifying theory to explain these troubling and related trends, according to the authors. Patents embody the codification of much of the economy's knowledge, and the paper explores how dysfunctional elements of the patent system—including so-called “patent trolls” and the steep rise of patent litigation—may have contributed to this erosion of economic dynamism. Together, the emerging body of evidence points to a need for patents to be given more certain boundaries and for quicker dispute resolution mechanisms in the patent system.

As a result, the authors argue that new firms are facing increasing difficulty challenging older, incumbent firms which are leaping ahead of rivals in both their productivity and output. Workers have been moving between firms and between places at historically-low rates until recently, dampening a key source of opportunity and wage growth. Further, startup rates have steadily declined since the 1980s, and even with the pandemic driven uptick, remain well below historical levels, leading to an economy that is more sclerotic and less entrepreneurial. Together, these trends have slowed productivity growth and reduced the national economy's ability to channel new ideas and talent into disruptive, fast-growing, highly-innovative firms.

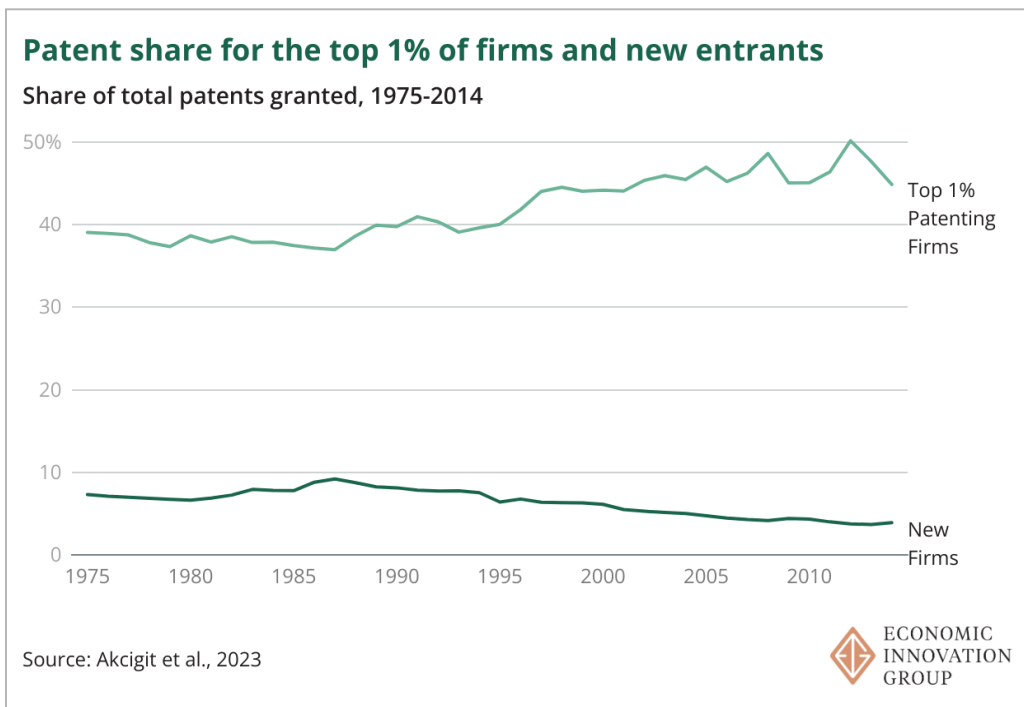
The Decline of Dynamism and the Role of Patents and Patent Litigation

Using a stylized model of market-leading and lagging firms, Akcigit, Ates, and Chikis demonstrate the importance of dynamism in preserving incentives to continually invest and invent, either to maintain a market-leading position or to catch up and challenge an incumbent's status. The decline in dynamism over the last four decades has reduced these incentives and helps explain many other trends impacting the national economy. In particular, the gap between leaders and laggards has grown, startup rates have fallen, reallocation of workers has slowed, market concentration has risen, and the share of workers employed in smaller and younger firms has declined, all while aggregate productivity growth has markedly slowed and the labor share of national income has declined.

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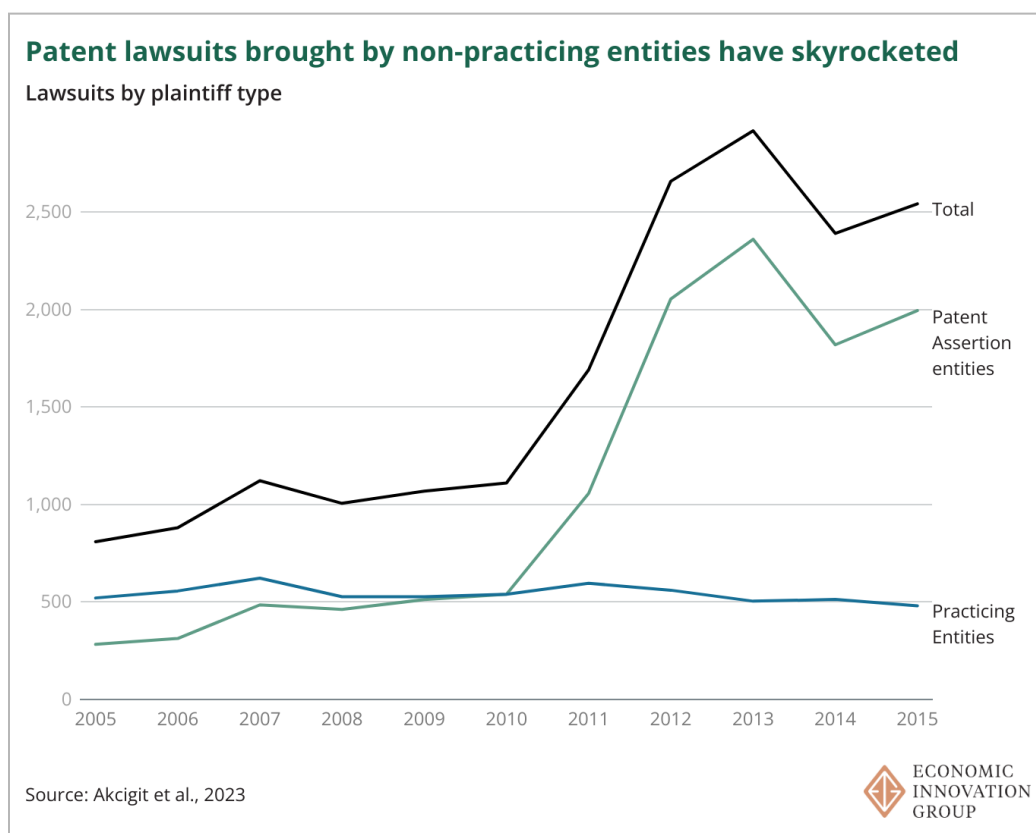


The authors develop a model to show that slowing knowledge diffusion can explain these interrelated trends (Akcigit and Ates, 2021). The spread and adoption of new ideas, methods, and technologies across firms and workers boosts aggregate productivity and growth. Naturally, the patent system directly influences the rate of knowledge diffusion across the economy. An optimal patent system balances the need for the diffusion of new ideas across the economy with the incentives to invent at inception that are created by legal patent rights.



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The growth of what some argue are lower-quality patents and the expanding third-party market for patents has brought issues in the patenting system to the fore. Non-Practicing Entities (or NPEs), who buy and hold patents as investments but do not themselves invent, have become an increasing concern for many firms, exploiting unclear property rights in the patent system to the detriment of economic dynamism. Federal courts began interpreting patent rights more broadly starting in the early 1980s, taking a stronger and more expansive view that favored plaintiffs (ie, those alleging infringement, such as NPEs) over defendants (inventors and others deploying the technology in productive activity) ([Lerner, 1995](#)). This change, combined with a lower bar for granting patents by examiners at the U.S. Patent and Trademark Office, ultimately led to a rise in lower-quality patents and a blurring of patent property rights’ boundaries, leaving firms open to an explosion of litigation ([Akcigit and Kerr, 2018](#)).



Empirical evidence on the activities of NPEs suggest a fair share have earned the “patent troll” moniker. Recent research shows that NPEs typically assert lower-quality patents, do so closer to patents’ expiration dates, and target firms with large cash holdings. Rather than serve as helpful mediators between independent inventors and larger markets in which their ideas can be applied, many NPEs have instead played a more unpropitious role in the patent ecosystem ([Abrams et al., 2019](#)). These entities buy up lower-quality patents and, emboldened by the judicial system’s increasingly generous treatment of infringement claims, attempt to extract payments or licensing fees. NPEs engage in opportunistic legal forum-shopping, with one

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particularly generous district judge hearing more than [25 percent](#) of all patent cases in the United States at one point – symbolic of growing distortions in the system.

Critically, NPE patent accumulation can have a strong chilling effect on innovation. Empirical evidence shows that innovation downstream from a patent acquired by an NPE slows, likely due to prospective litigation risk, with a 25 percent reduction in annual R&D investment for firms on the losing end of NPE suits ([Cohen et al., 2019](#)). Further, the authors find increases in patent litigation are associated with declines in various measures of economic dynamism, including higher market concentration, higher markups, and increased profit shares within sectors. In other words, the rise of patent trolls and the decline of economic dynamism across the country may be intricately linked through trolls’ impact on innovation incentives and knowledge diffusion.

Policy Implications: The Need for Clearer Patent Rights and Timely Dispute Resolution

Unclear patent-right boundaries and slow, inefficient dispute resolution mechanisms are two of the primary drivers of the NPE problem, also making them contributors to the country’s dynamism dilemma. NPEs acting in bad faith are able to exploit a patent market that is inherently inefficient due to information asymmetries to buy batches of patents that are analogous to lottery tickets. Many such patents are low-quality, and some might even be invalidated as insufficiently novel, useful, or non-obvious if given a second review. As NPEs have been able to shop jurisdictions to seek out more plaintiff-friendly judges who interpret patent rights most broadly, they weaponize these patents to halt investments and extract awards from unsuspecting businesses – frequently including startups.

Uncertainty and delay both tilt the balance of power in favor of extractive NPEs rather than the producing firm being sued for “infringement.” With capital at stake, the prospect of lengthy, expensive litigation may be too high a hurdle for defendants, regardless of the validity of the infringement claim. Defendants often choose to settle, with deadweight loss to the overall economy. Successful suits then create a chilling effect in adjacent technology areas that discourages further innovation. Further, such uncertainty does not just impose costs on companies directly sued. Fear of litigation may be one reason why large firms are buying up patents in droves. While this defensive measure may reduce litigation risk, it also may have the side effect of slowing knowledge diffusion in the rest of the economy, reducing dynamism.

These problems imply a strong need to set firmer, more certain patent boundaries, as trolls are fed by uncertainty. This policy likely entails a system in which patent rights are more narrowly interpreted, including tighter limits on oft-abused continuation patents for derivative inventions. Further, the United States needs a faster, more efficient system to resolve disputes over alleged patent infringements.