

THE QUANTIFICATION OF THE PRODUCTIVE INEFFICIENCIES OF PATENT PROTECTION

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Professor William Hubbard's article, *The Debilitating Effect of Exclusive Rights: Patents and Productive Inefficiency*, starts by asking, "Are we underestimating the costs of patent protection?"¹ One reaction to that initial question might be excitement that some researcher has calculated the costs and benefits of patent protection, and that Hubbard seeks to render that calculation more accurate. Indeed, Hubbard's article identifies factors that should be—but heretofore have not been—considered in an economic analysis of patent law: the positive influence of competition on productive efficiency and the opposite effect of some patent policies, laws, and practices.² But Hubbard also notes that, unfortunately, despite the abundance of economic literature regarding patents, there exists a great deal of uncertainty with regards to even their conventional economic effects.³ For instance, some economic studies suffer from impaired objectivity, yet institutions promoting new patent laws frequently rely upon and quote estimates produced by right holders and other self-interested private actors.

The absence of institutional estimates devoid from such conflicts of interest, however, may be changing. In 2008, the Organization for Economic Co-operation and Development released its report, *The Economic Impact of Counterfeiting and Piracy*.⁴ Though some have questioned the report's methodology and data,⁵ it was the first of a number of reports adopted by public institutions to try to ascertain the socioeconomic impact of intellectual property. Since 2008, the European Patent Office and the European Union Office of Harmonization for the Internal Market,⁶ the United States Government Accountability Office⁷,

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1. William Hubbard, *The Debilitating Effect of Exclusive Rights: Patents and Productive Inefficiency*, 66 FLA. L. REV. 2045, 2045 (2014).

2. See generally Hubbard, *supra* note 1.

3. See *id.* at 2048, n. 13 (explaining that no empirical evidence has enabled "a ringing endorsement of any complete body of [patents or copyrights].").

4. *The Economic Impact of Counterfeiting and Piracy: Executive Summary* (2008), OECD, <http://www.oecd.org/dataoecd/57/27/44088872.pdf> [hereinafter *OECD report*].

5. Carsten Fink, *Enforcing Intellectual Property Rights: an Economic Perspective*, Intellectual Property and Sustainable Development Series, in THE GLOBAL DEBATE ON THE ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS AND DEVELOPING COUNTRIES 1, 13 (2009), available at <http://www.ictsd.org/sites/default/files/research/2012/02/the-global-debate-on-the-enforcement-of-intellectual-property-rights-and-developing-countries.pdf>.

6. EUR. PAT. OFF. AND THE OFF. FOR HARMONIZATION IN THE INTERNAL MARKET, INTELLECTUAL PROPERTY RIGHTS INTENSIVE INDUSTRIES: CONTRIBUTION TO ECONOMIC PERFORMANCE

the United States Patent and Trademark Office⁸, and the World Intellectual Property Organization⁹ have elaborated upon or independently published economic reports regarding intellectual property.

The fact that public institutions are producing their own economic estimates is a positive step, but these reports nevertheless suffer from methodological infirmities and data gaps like those identified by Hubbard. For example, these estimates still fail to recognize relevant economic variables, the possible positive effects of infringement, the unwarranted anticompetitive impact of some laws, and other possible negative impacts on social welfare stemming from patent protection. Hubbard's proposal is to add to the list of omitted items in need of quantification "the effect of patent protection on productive inefficiencies"¹⁰ because competition is "critical to limiting productive inefficiencies"¹¹ and enhancing social welfare.

In fact, the effect of patent protection on productive inefficiencies should be one of the topics of empirical research promoted by public institutions like the European Patent Office and the U.S. Patent and Trademark Office. The methodological aspects of that research would not, however, be easy to solve, as even well designed studies are prone to criticism. Perhaps the best economic study of intellectual property conducted so far, that jointly produced by the European Patent Office and the European Union Office of Harmonization for the Internal Market in 2013, proposed quantifying the overall contribution made by intellectual property-intensive industries to the European economy in terms of output, employment, wages, and trade. In order to achieve this goal, the study determined which industries (1) use intellectual property rights (IPR) more than others, (2) used industry-level economic statistics to determine employment and value added (GDP) generated in those industries, and (3) compared the industry-level economic aggregates to those for the overall economy in order to determine the weight in the economy of IPR-intensive

AND EMPLOYMENT IN THE EUROPEAN UNION (2013), available at http://ec.europa.eu/internal_market/intellectual-property/docs/joint-report-epo-ohim-final-version_en.pdf [hereinafter *EPO-OHIM report*].

7. U.S. Gov't Accountability Off., GAO-10-423, *Intellectual Property: Observations on Efforts to Quantify the Economic Effects of Counterfeit and Pirated Goods* (Apr. 2010), available at <http://www.gao.gov/new.items/d10423.pdf>.

8. Economics and Statistics Administration and U.S. Patent and Trademark Office, *Intellectual Property and the U.S. Economy: Industries in Focus* (Mar. 2012), available at www.uspto.gov/news/publications/IP_Report_March_2012.pdf.

9. In addition to the academic work of the WIPO Chief Economist, Carsten Fink, *supra*, at n.5, the WIPO Economic Research Working Paper Series compiles economic and statistical studies resulting from professional research, see *WIPO Economic Research Working Papers*, WIPO: WORLD INTELLECTUAL PROPERTY ORGANIZATION (Mar. 26, 2015 4:37 PM), http://www.wipo.int/econ_stat/en/economics/publications.html.

10. Hubbard, *supra* note 1, at 2077.

11. *Id.* at 2074.

industries.¹² Some assumptions made in the study, however, are unrealistic, thus undermining the report's conclusions. Importantly, in the case of patents, the European study relied on patent applications rather than granted patents, but the number of filed patent applications does not reflect any objective level of innovation. For one, numerous patent applications are rejected. In addition, even for a granted patent, a defendant in a lawsuit usually argues that the allegedly infringed patent is invalid, and this argument is successful in roughly half of all cases.¹³ In fact, as the United States Supreme Court noted, patent litigation frequently arises because of the "notorious difference between the [validity] standards applied by the Patent Office and by the courts."¹⁴ Furthermore, even valid patents often do not represent patented inventions worth exploiting commercially.¹⁵ As a result, contrary to the foundational assumptions of the EPO-OHIM study, patent filings are a far cry from socially valuable innovations.

What Hubbard's article and the mentioned studies reflect is that the blooming field of intellectual property economics still has much room for development, in terms of the object of research—productive inefficiencies, for instance—and the methodologies and assumptions implemented. This void can only be filled by objective, unbiased research. In the absence of such studies, lawmakers will be unable to determine the economic consequences of intellectual property reforms.

12. *EPO-OHIM report*, *supra* note 7, at 26.

13. See John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 *AIPLA Q.J.* 185, 205 (1998) (concluding that, from 1989 to 1996, 46% of patents were invalidated in final written decisions on validity).

14. *Graham v. John Deere Co.*, 383 U.S. 1, 18 (1966).

15. Ted Sichelman, *Commercializing Patents*, 62 *STAN. L. REV.* 341, 343–44 (2010).