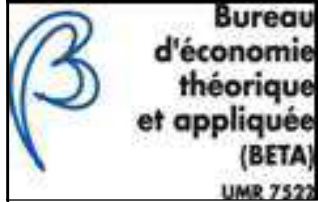


Law and Economics Seminar
Law and Growth Economics:
Cooter & Edlin's *Framework for Research*

Strasbourg, April 9th, 2013

Cooter, Robert D., Edlin, Aaron, Law and Growth
Economics: A Framework for Research, Working Paper
Series, Berkeley Program in Law and Economics, January
2011.



Invited Speaker Series in Law and Economics of Intellectual Property



**“Patent law and the Theory of the Firm:
Economic Analysis Beyond Incentive Theory”**

delivered by

Professor Dan L. Burk

**Chancellor’s Professor of Law at the University
of California, Irvine, US**

on

May 2, 2013 at 18:00

in Amphitheatre 23

(CEIPI, 11 rue Maréchal Juin, Strasbourg)

Contact: kupzok@unistra.fr



Cooter and Edlin's propositions – a nutshell

- Economic growth overtakes all other policy objectives
 - Sustained growth comes from innovation
- => Incentivizing innovation (which ensures economic growth) should be the most important focus of policy makers

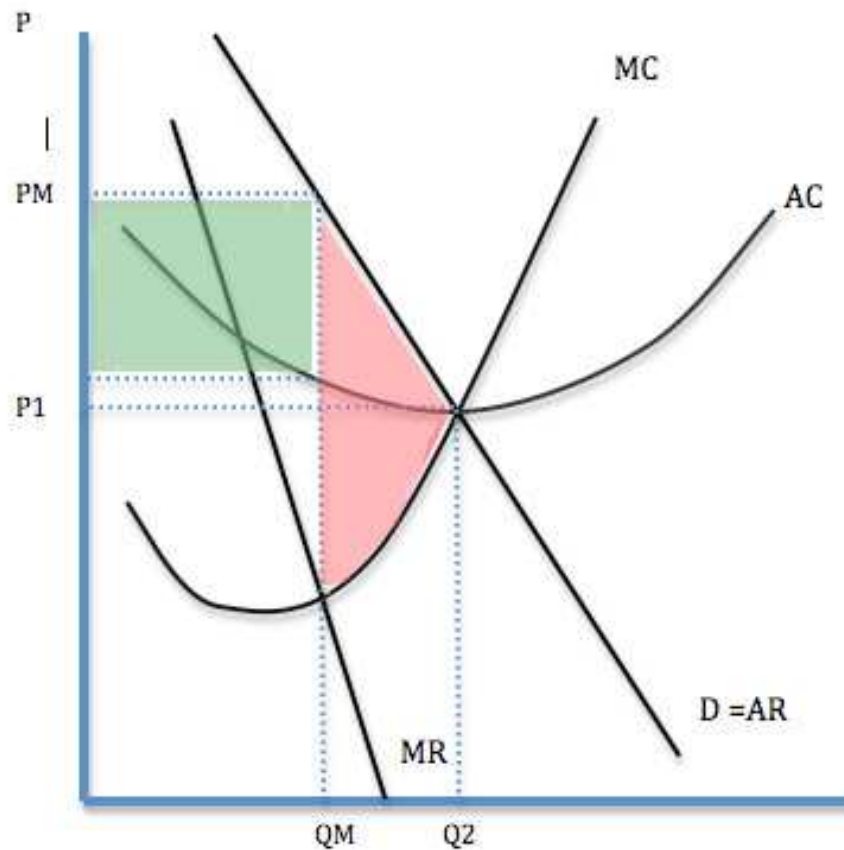
Cooter and Edlin's observation

- Fundamental focus of L&E approaches is on whether laws, rules, and policies are efficient in static sense.
- Efficiency:
 - Static:
 - Allocative
 - Economic use of available resources
 - Productive
 - Economic success of a company
 - Dynamic
 - Refers to the extent to which a firm introduces new products or processes of production.

Static efficiency

- Static efficiency fallacy – wealth-maximization analysis of policy measures that is based purely on static efficiency is not the right approach
- How would a static efficiency analysis look like?

Costs of Monopoly



PM – monopoly price

P1 – Price in competitive market

QM – Quantity demanded at PM

Q2 – Quantity demanded at competitive price

AR – Average Revenue

AC – Average Cost

MR – Marginal Revenue

MC – Marginal Cost

Green Area – Monopolists Profits

Red Area – Dead weight loss

Why is growth so much more important?

- Growth overtakes losses from static inefficiency
- Sustained growth has exponential effects
- Static efficiency has multiplicative effects
- When static efficiency and exponential growth trade off:
 - [Welfare] Overtaking implies that exponential growth determines the welfare maximum
- When static efficiency and exponential growth complement each other, welfare overtaking implies that static efficiency only matters to the welfare maximum in so far as it increases sustained growth.

Innovation = sustainable growth

- Static efficiency should not be a core consideration
- Growth and its assurance are most important
- Solow (1957):
 - Technological progress & increased human capital of labor account for most of productivity increase (US)
- Empirical growth economics concluded that technological innovation accounts for much growth.
- Ideas and knowledge are non-rivalrous, thus more sustainable than raw materials such as oil and other natural resources

How is Cooter and Edlin's proposal different?

- Parting with the static efficiency analysis
- Parting with Schumpeter:
 - Schumpeter Mark I (early work):
 - Entry of small innovative firms displacing incumbents drives innovation
 - Schumpeter Mark II (later work: 1943, 1949):
 - Innovation is driven by big-size established firms, who fund risky, expensive research

Cooter and Edlin's innovation framework

- Life-cycle of innovation
 - Discovery
 - Development
 - Marketing
- Development of ideas into marketable products occurs only when the “double trust dilemma” is solved
- Development requires several people to contribute their expertise to the project causing the “collaborator's dilemma”.

Cooter and Edlin's innovation framework

- Life-cycle of innovation
 - Discovery
 - Development
 - **Marketing**
- If an innovation is successful, its marketing brings
 - High profits after the launch
 - Declining profits when imitators enter the market
 - Eventual reversion to normal profits

Cooter and Edlin's innovation framework - conclusions

- Public policies should be designed so as to encourage creation of ideas:
 - Education, communication networks
- Legal solutions to manage double trust and collaborator's dilemma have been found but none completely eliminates either of them
- Providing rewards in the marketing phase must be balanced with the incentives to create new inventions

Intellectual property and growth economics

- Basic question: to maximize innovation how strong should patents be?
 - Innovation maximized when most profitable = > When innovator's profits are maximized, IP is optimal
 - Profit = Revenue – Cost
 - Cost – in development phase
 - » Cost increases in follow-on inventions, when patents exist
 - » Strengthening patents increases costs of developing innovations from prior inventions.
 - Revenue – Only in the marketing phase
- Recommendation: IP should incentivize foundational innovations + more empirical research is needed.

Strengths and weaknesses of the article – what do you think?

- Strengths:
 - Proposing new approach to innovation
 - Points out the bias of the current research and mistakes in policy analysis
 - Very strong argument: innovation, based on “production” of new ideas, which are non-rivalrous, cannot be depleted of its resources, infinitely (unlike natural resources)

Strengths and weaknesses of the article – what do you think?

- Weaknesses:
 - A bit too “blue sky” – non-depletion of innovative ideas – great, but the presented innovation framework foresees implementation of ideas by producing *tangible and marketable products*, which require (limited) *resources*
 - Focus on profits of innovators severely distorts the role of the government, which is charged to balance all the different interests
 - Costs of maintenance, enforcement, and negotiation related to IP are ignored
 - Role of IP as a strategic instrument ignored.

Bigger picture – how does this article fit into L&E?

- Programmatic article – proposes shift in paradigm (authors rethink the currently predominant approach in Law and Economics of IP)
- Especially in relation to patents, static welfare analysis of IP produced a series of theories, of which none is truly dominant:
 - Incentive theory
 - Optimizing Patterns of Productivity
 - Reducing Rent-Dissipation

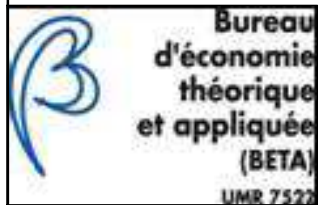
Bigger picture – how does this article fit into L&E?

- Since Machlup's famous statement that: *“None of the empirical evidence at our disposal and none of the theoretical arguments presented either confirms or confutes the belief that the patent system has promoted the progress of the technical arts and the productivity of the economy.”* justifications for the benefits of the IP system were always questioned.
- Cooter and Edlin's approach enlarges the scope of considerations

Methodology: How can growth theory be incorporated in research projects?

- Cooter and Edlin's approach leads to new formulations of old research questions, for example:
 - Do auctions or prize systems, which are supposed to provide alternative incentives to invent, increase economic growth more than patents currently do?
- Is economic growth optimal when innovators obtain maximal profits? If yes, is the patent system adequate to indicate the quality of innovating activities?
- From the EU's perspective, could dynamic efficiency analysis replace and/or complement the current approach to IP? (and how to operationalize it?)
- Klumpp & Su (2010) analyze (non)existence of trade-off between static and dynamic efficiency in open access – similar studies feasible?

Announcements



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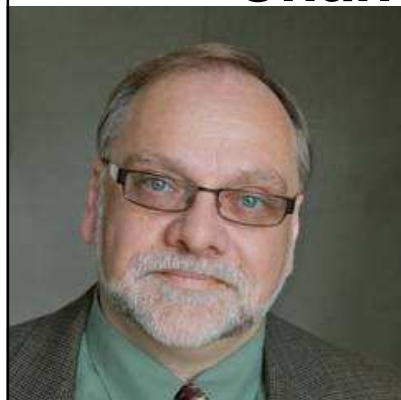
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Announcements

Next workshops

- **May 14th**, 12:00 – 14:00 – location (most likely) 5 rue Schiller, room no. 3.

Reading: Lemley, Mark A., *The Surprising Virtues of Treating Trade Secrets as IP Rights*, Stanford Law Review, Vol. 61, p. 311, 2008; Available at: <http://www.stanfordlawreview.org/print/article/surprising-virtues-treating-trade-secrets-ip-rights>

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Announcements

CEIPI-BETA Law and Economics Project is online:

<http://www.ceipi.edu/index.php?id=13737>

Materials for the future and past workshops can be found here:

<http://www.ceipi.edu/index.php?id=13763&L=2>

References:

- The Kauffman Taskforce on Law, Innovation, and Growth, *Rules for Growth, Promoting Innovation and Growth Through Legal Reform*, Ewing Marion Kauffman Foundation, 2011.
- Klumpp, Tilman, Su, Xuejuan, *Open Access and Dynamic Efficiency*, *American Economic Journal: Microeconomics* 2(2), 64-96, 2010.
- Machlup, Fritz, *An Economic Review of the Patent System, Study of the Subcommittee on Patents, Trademarks, and Copyrights of the Committee on the Judiciary*, United States Senate, Study No. 15, Washington, 1958.