

OPINION

Intellectual Property, the Banking Crisis and the Public Interest

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The UK Hargreaves inquiry is one more testimony to the failure of intellectual property laws to deliver the innovation that is their only justification. This parallels numerous similar investigations of the worldwide banking crisis. Yet both failures have an easily understood common cause: the making of property laws has been allowed to fall into the hands of those who can benefit from them. Since capitalism can only work by denying capitalists the power to set their own working conditions, the crucial question for any reform is: who can now speak for the public interest in these kinds of legislation?

Introduction

Intellectual property (IP) and the global financial crisis are linked in two ways. First, IP exists to help make industrial innovation possible, but the world's present financial problems reflect a massive shift of innovative capacity from technologies of all kinds, to manipulating money. Secondly, in both cases the cause has been failures of the property laws which are the basis of all markets.

Individual property rights have proved themselves to be the most successful means of bringing about economic development, because they set the widest range of human creativity free to express itself in this way. They can also force self-interest to serve the public good, that is, they can *civilise* it. But they are always in danger of falling

under the control of those whom they are intended to discipline, and this is what has happened in respect of both financial services and IP. Capitalism can only work as long as capitalists are denied the power to set their own working conditions.

The financial crisis

Until around the mid-19th century, specifically 1879 in this part of the world, those who dealt in money were liable up to the limit of their wealth, and were correspondingly careful about the risks they took. Limited liability, gained through their lobbying, relaxed this discipline and allowed speculation, which led to the crash of 1929. Restrictions were then imposed, typically as in the Glass-Steagall Act of 1933 in the United States, but they only lasted until 1997, when lobbying again triumphed. Lack of control then led to the invention, innovation and development of a vast new range of highly risky financial instruments, which in turn made possible the reckless lending which caused the property bubble in many countries.¹

To illustrate this, for more than a century, British banking sector assets were about half of annual national income, but at the peak of the boom, they reached *more than five times* income.² In the United States, in the years immediately after the Second World War, when the US economy was as innovative in technology as it had ever been, if not more so, the financial sector accounted for 10–15 per cent of all corporate profits. Before the recent crash, its proportion surpassed 40 per cent. This is also reflected in the earnings of those who worked in the financial sector. Until 1929, these were measurably higher than in other sectors of the economy, but during the period of Glass-Steagall regulation they dropped to around parity. However, from the late 1970s, reflecting progressive deregulation, they grew rapidly again, ending up at a level almost three-quarters higher than the average for other workers.³

Tempting talent away from technology

It was inevitable that these greatly increased rewards in the financial sector would attract talent and energy out of technology, science and other kinds of business. This represents a massive shift in the balance of innovative capacity, because individuals who can invent and innovate are scarce. Further, profits from financial manipulation are intrinsically short-term, and the growth in the volume of these increased the pressure on non-financial firms to show constantly increasing returns every quarter, as well. Shortening their time horizons in this way reduced the

* This article is an expanded version of a lecture to the 2010 Congress of the Chartered Institute of Patent Agents.

¹ W. Kingston, "Bankers only listen to laws" (Spring 2009) Regulation 4.

² See D.K. Sheppard, "The growth of U.K. financial institutions and changes in the financial environment 1880 to 1962" (Birmingham: University of Birmingham Faculty of Commerce and Social Science, 1969). Later figures from Bank of England data.

³ T. Philippon and A. Reschke, "Wages and human capital in the US financial industry: 1909–2006", National Bureau of Economic Research Working Paper No. 14644 (2009).

attraction to them of investing in technological innovation, since this involves uncertainty as well as risk, and even when it succeeds it produces results only in the long term.

For example, a wide range of British engineering firms fell victim to takeover by Arnold Weinstock's General Electric Co, precisely because their managements had a timescale that was adapted to technological innovation and the financial institutions that held the bulk of their shares did not. It is astonishing, but true, that towards the end of the Weinstock era, GE's main research laboratories at Wembley were only allowed to work on projects for which the start of returns could be foreseen within five years. Also, the philosophy of the venture capital industry is to look for exit from its investments, usually by way of an initial public offering of shares, within a similarly short time. The now widespread payment of executives through stock options reinforces this trend towards short-term investment, because it aligns the interests of talented people in firms with those of stock traders, which are inherently concerned only with the short-term and calculable risk, avoiding the inevitable uncertainty of innovation.⁴

Capture of IP legislation by interests

Intellectual property laws, too, fell under the control of those who could benefit by them. Wernher Siemens actually went into politics to work for what became the German 1877 Patent Act, but he had to deal with civil servants who ensured that this legislation also reflected the public interest.⁵ When British and American interests were able to get rid of "local manufacture" as a requirement for patent validity at the 1925 meeting of the Paris Convention, there was no similar countervailing force. After the Second World War, the coming of antibiotics provided a wonderful opportunity for the US pharmaceutical industry, but also raised a problem about the patent system. At the time, the courts were increasingly invalidating patents on the ground of lack of a "flash of genius" for validity. The patient and systematic "trawling" of multiple possibilities to find new antibiotics, on the model of the 10,000 samples of soil bacteria within which streptomycin had been found, would not be able to meet this criterion.⁶ The 1952 Patent Act, which was "basically written by patent lawyers" for the pharmaceutical industry,⁷ replaced the "flash of genius" by the non-obviousness criterion, a change which was then copied throughout the world.

The influence of interests is also evident in the progressive extension of the term of copyright. In the case of the 1998 US Act, for example, quite remarkable campaign contributions were made by firms like Walt Disney to bring it about.⁸ But nothing that went before compares with how TRIPS was brought into being. This effectively forces all other countries to adopt and enforce US intellectual property law, and its authoritative history sums up how it happened as "in effect, twelve corporations made public law for the world".⁹ The patent side of TRIPS mainly reflects pharmaceutical and information technology influence, and its trade mark provisions have the prints of the tobacco industry all over them.

A second damaged set of laws

Intellectual property, therefore, is now as dysfunctional in its way as financial services are in theirs, even to the extent of stimulating a call to eliminate it altogether.¹⁰ This is extreme, but in one aspect of it where we do have reliable measurements of its performance, the patent system, the evidence is very discouraging. Bessen and Meurer, for example, report that no less than half of the value of all patents worldwide accrues only to firms in the pharmaceutical industries, and if other chemicals are added, this proportion rises to as much as two-thirds.¹¹ This is hardly surprising, since the system's modern structure, as noted earlier, was specifically devised to protect chemical inventions. The other side of this coin is poor protection of inventions in other fields of technology, to the extent that the same authors claim that the average public firm in these fields "would be better off if patents did not exist".¹²

This is particularly true of small firms (SMEs) everywhere. Many large firms have little need of IP to invent and innovate because their investments in productive and/or marketing assets give them enough protection for any information they may generate. SMEs, however, simply cannot do without specific protection if they are to do the same, since they do not possess such assets to any significant degree. In the form of IP, this is virtually worthless to them. They have to defend their "rights" in the courts out of their own resources, and large firms frequently intimidate smaller ones with threats of forcing litigation costs upon them that they cannot bear. A comprehensive EU study showed, for example, that every valuable European small-firm patent in the United

⁴ William Lazonick, *Sustainable Prosperity in the New Economy: Business Organization and High-Tech Employment in the United States* (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2009).

⁵ A. Heggen, *Erfindungsschutz und Industrialisierung in Preussen, 1793–1877* (Göttingen: Vandenhoeck und Ruprecht, 1975), pp.115–118.

⁶ W. Kingston, "Streptomycin, Schatz v. Waksman and the Balance of Credit for Discovery" (2004) 59(1) *Journal of the History of Medicine and Allied Sciences* 441.

⁷ Judge Rich in John F. Witherspoon (ed.), *Non-obviousness: the Ultimate Condition of Patentability* (Washington, D.C.: National Bureau of Economic Affairs, 1978), p.218.

⁸ Lawrence Lessig, *Free Culture* (New York: Penguin Books, 2004), p.218.

⁹ Susan K. Sell, *Private Power, Public Law: the Globalization of Intellectual Property* (Cambridge: Cambridge University Press, 2003).

¹⁰ Michelle Boldrin and David K. Levine, *Against Intellectual Property* (Cambridge: Cambridge University Press, 2008).

¹¹ James Bessen and Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats and Lawyers put Innovators at Risk* (Princeton, N.J.: Princeton University Press, 2008), p.109.

¹² James Bessen and Michael J. Meurer, "Of patents and property" (2008) 31(4) *Regulation* 25.

States was infringed, and only in the rarest of cases was the owner able to use the courts to make the infringer pay.¹³

Possible remedies

When we come to consider what can be done to repair the present worldwide financial system, there is a seemingly insuperable obstacle in the extent to which policies are now shaped by interests, through the need which politicians have for support from these to get elected.¹⁴ On this, Richard Posner, a judge of the US Eighth Circuit and professor in Chicago University, who incidentally can claim exceptional expertise in IP matters, has recently written pessimistically:

“The adjustments that will be needed, if the economy does not outgrow an increasing burden of debt, to maintain our economic position in the world, may be especially painful and difficult because of features in the American political scene that suggest that the country may be becoming in important respects ungovernable. *The perfection of interest-group politics* seems to have brought about a situation in which, to exaggerate just a bit, taxes can't be increased, spending programs can't be cut, and new spending is irresistible ... these tendencies are bipartisan ...” (Emphasis added.)¹⁵

In the past, independent civil services were a countervailing force to interest group politics, but their power to fulfil this function was destroyed in Europe by casualties in the first World War, and the financial inflation after it; and in the United States by President Roosevelt's recruitment of more pliant bureaucrats to drive his New Deal through. In a parallel way the constraints of TRIPS, similarly shaped by interests, have to be taken as given, even though it has become more discredited by the year. The traditional difficulty of change in the United States because its IP laws are explicitly restricted by a clause in the Constitution, is another obstacle. Within the EU, the Lisbon Treaty has transferred all powers relating to IP from the individual states to Brussels, thus preventing individual countries from making trials of new approaches. Against this background, no reform of the patent system can be envisaged that would enable it to be as useful to other industries as it is to those in the pharmaceutical field. For that benefit, we must look to direct protection of innovation (DPI) in the sense recently indicated by Lord Justice Jacob:

“One can, of course, postulate a different policy under which a monopoly might make sense. There are old or obvious ideas which take a lot of work, expense and time to develop and turn into something practical and successful. Without the incentive of a monopoly, people may not do that work or spend the time and money. The Fosamax case, *Teva v Gentili*, is an example of an obvious invention which cost lots to bring to market. But patent law provided no protection for all that investment because the basic invention was obvious.”¹⁶

Detailed proposals for DPI which would leave existing arrangements untouched and consequently comply with TRIPS, have been around since the 1980s, including the results and recommendations of a large EU-financed research project on it.¹⁷ DPI has already proved its worth in protecting plant varieties and the United Kingdom's functional design arrangements, but the most convincing evidence in its favour comes from its adoption in the Orphan Drug Act of the United States, which has resulted in twelve times more drugs of the kinds required and in measurable declines in death rates.¹⁸ There is enormous potential for extending this kind of protection to fields where existing IP arrangements work poorly.

Small-firm innovation

The improvement which SMEs need most is undoubtedly relief from the burden of having to enforce their rights themselves. In England, the revamped Patents County Court which came into being in October 2010 is intended to reduce the cost of settling disputes (although the cap of £500,000 on damages it can award limits its potential effectiveness). More radical proposals include giving SMEs the 30-month priority period of the Patent Cooperation Treaty, without PCT costs; incontestability of their IP for a limited time; and compulsory expert arbitration with legal aid for the respondent party in the event of an appeal to the courts.¹⁹ This last proposal is particularly directed at eliminating intimidation of SMEs by large firms, and a most valuable step in implementing it has been the introduction of “Opinions” by the UK Intellectual Property Office.²⁰ The middle managers of large firms who take decisions about intimidating smaller ones are less likely to want to risk their career paths by recommending use of their firms' financial strength against an opponent who has obtained a favourable one of these.

¹³ European Commission, *Enforcing small firms' patent rights* (2001), ref.17032 EN.

¹⁴ R. Christopher Whalen, *Inflated: How Money and Debt Built the American Dream* (Hoboken, NJ: John Wiley, 2011).

¹⁵ Richard A. Posner, *The Crisis of Capitalist Democracy* (Cambridge, MA: Harvard University Press, 2010), p.371.

¹⁶ *Angiotech Pharm., Inc v Conor MedSystems Inc* [2007] EWCA Civ 5; [2007] R.P.C. 20 at [50] per Jacob L.J., aff'g [2006] EWHC 260 (Pat) (Pumfrey J.).

¹⁷ W. Kingston (ed.), *Direct Protection of Innovation* (Dordrecht: Kluwer Academic Press, 1987). See also, Ted Sichelman, “Commercializing Patents” (2010) 62(2) *Stanford Law Review* 341.

¹⁸ See Henry Grabowski, “Increasing R&D incentives for neglected diseases: lessons from the Orphan Drug Act” in Keith E. Maskus and Jerome H. Reichman (eds), *International Public Goods and Transfer of Technology under a Globalized Intellectual Property Regime* (Cambridge: Cambridge University Press, 2005), pp.457–480.

¹⁹ W. Kingston, *Beyond Intellectual Property: Matching Information Protection to Innovation* (Cheltenham: Edward Elgar, 2010).

²⁰ More than 150 of these Opinions from 2004 onwards can be inspected at <http://www.ipo.gov.uk/types/patent/p-dispute/p-opinion/p-opinion-advert.htm> [Accessed March 11, 2011].

Public financing of innovation

A connection between the laws relating to money and to innovation consequently re-emerges when solutions to the problems both are causing are considered. Failure of bank regulation was the most important reason for the economic crash of 1929 and the subsequent economic depression. The large public expenditures of the Roosevelt era from 1933 were initially successful in dealing with this, but there was a second "dip" in 1937. It is widely believed that it was the huge public expenditure of the Second World War which finally brought the United States out of depression, but this on its own might again have been no more than temporary. What made its effect last until the 1970s was the extent to which the US Government provided quite unprecedented levels of funding for industrial innovation during the war. This effectively removed the financial risks, which cleared the way for many innovative firms to undertake the technical ones.

Although the initial objectives were of course military, the information generated became the basis of entire new industries after the war, apart from equally valuable incremental improvements in already existing products and in their methods of manufacture (the magnetron, for example, is the heart of both radar and the microwave cooker). An aspect of this development is illustrated by American Research and Development Co of Boston, founded in 1946 by General Doriot to exploit these new technologies, which became the model for the world's post-war venture capital industries.

On this precedent, long-term economic recovery in the countries hit by the banking crisis will not be brought about by any of the ways of using public money that are

currently being adopted. It will only happen to the extent that public expenditures fund technological innovation massively, as those of the United States did during the Second World War. In Europe, for example, what is needed is a set of larger-scale versions of the US small business innovation research programmes, which are currently providing more than \$2 billion a year of seed capital for firms with up to 500 employees. These programmes accept that an SME will not have the in-house expertise to achieve its object, so an awardee is allowed to spend up to a third of his first-stage award of up to \$100k and up to half of his second-stage award of up to \$750k on "external research". It is the SME which decides what information needs to be developed to achieve the product on the market which is its objective.

This has proved to be far more successful than the European practice of direct funding of university research in the hope that this will be the source of industrial "spin-offs". Putting the cart before the horse in this way means that European taxpayers are paying for the generation of information which, if it is useful at all, is likely to be innovated in the United States or Asia. In contrast, following this US example could reverse the disastrous replacement of technology by financial innovation which has done so much harm in recent decades. This would be particularly the case if it was combined with improved protection of information along the lines suggested above.

But in achieving anything like this, the crucial question is: who can now speak for the public interest in formulating laws of property, not least as they apply to information?