

Introduction

Intellectual property, the economy – and what is at risk

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In the past decade, the emergence of two momentous yet opposing trends has challenged the world's knowledge-based economy, suggesting an alarming and radically different future for both the economy and employment.

First, intellectual capital is increasingly becoming our most important resource, rapidly replacing land, energy and raw materials in the production equation. As *The Economist* put it in October 2005, as much as 75% of the value of publicly traded companies in the United States comes from intangible assets, up from around 40% in the early 1980s. Entire industries and millions of employees are depending more and more on the creation and protection of intellectual property.

Second, as companies seek to deliver products and services to the marketplace, they are investing more and more in 'intellectual capital'. The problem is that intellectual property is vulnerable to theft through counterfeiting and piracy.

These trends are leading many to question whether the global economy can continue to absorb the massive losses that result from IP theft, counterfeiting and piracy in terms of lost economic growth, gross domestic product (GDP) and employment.

In order to understand the consequences of IP theft more fully, this chapter examines what is at risk from the global spread of this type of crime. Our thesis is that intellectual property is an important component of the overall health of the economy – and that much is at risk.

Specifically, the rights associated with intellectual property – the copyrights, patents, trademarks and similar rights upon which the lion's share of creative and innovative products and services rely – play a vital role in growing the economies of developed and developing countries all over the world, in spurring innovation, in giving large and small firms a range of tools to help drive their success, and in benefiting consumers and society through a continuous stream of innovative, competitive products and services and by expanding the overall state of knowledge.

IP protection benefits the economy

The development and protection of intellectual property go hand in hand with economic activity, employment and growth in developing as well as developed countries. Notably, industrial sectors that rely on IP rights protection are substantial contributors to the economy. For example, in G8 countries, copyright-based industries and interdependent sectors alone account for between 4% and 11% of GDP and between 3% and 8% of all employment. Copyright-related industries also generate substantial GDP and employment in developing countries: between 2% and 6% of GDP and 3% and 11% of employment in 14 developing countries and regions studied by the World Intellectual Property Organisation in Latin America, Asia and elsewhere. Branded goods industries account for approximately 7% of GDP in Spain and Germany, and more than 14% of all manufacturing in the United Kingdom. Moreover, many IP rights-reliant sectors show disproportionate growth despite declining prices and are strategically important to the economy.

IP rights attract foreign direct investment (FDI) and promote research and development (R&D) and technology transfer

in developing countries, driving development and economic growth.

The Organisation for Economic Cooperation and Development (OECD) has found that the strength of a country's patent rights positively correlates to inward FDI, holding other factors constant. This relationship holds for all groups of countries – developed, developing and least developed. OECD economists have found that a 1% increase in a country's patent protection correlates to a 2.8% increase in FDI; while a 1% improvement in trademark and copyright protection increases FDI by 3.8% and 6.8%, respectively. Similarly, other studies have shown that weak IP rights are significant barriers to international technology licensing and also reduce investment in the computer software sector and direct investment in the pharmaceutical sector. At least 25% of US, German and Japanese high-tech firms refused to invest directly or through joint ventures in developing countries with weak IP rights.

IP protection promotes innovation

As policy makers search for the magic formula to stimulate economic growth, it has become increasingly clear that innovation – in the form of both new technologies and fresh ideas – is the key driver of future productivity growth. Unsurprisingly, effective IP protection increases the amount of R&D and innovation. For example, patents have a positive impact on the R&D spend in most industries, especially pharmaceutical products, where the absence of patents has been shown to decrease R&D by between 25% and 35%. Moreover, firms can earn substantially more from innovations that are protected by IP rights, in turn injecting more into R&D. IP rights also attract

venture-capital investment for R&D and for the commercialisation of innovative products and services.

Once technologies are developed, IP rights also promote their dissemination through publication and licensing. This can also lead to greater technology transfers. The OECD has found that better IP rights protection in developing countries increases imports of tangible goods useful for domestic R&D, increases foreign entities' domestic patenting (indicating that valuable foreign technologies are being imported), and increases patenting by resident individuals and companies themselves. More specifically, the OECD has found that a 1% increase in the strength of patent protection in developing countries correlates to nearly a 1% increase in domestic R&D (0.7% on average). A similar increase in trademark and copyright protection correlates to a 1.4% and 3.3% increase in domestic R&D, respectively.

Governments themselves increasingly look to IP rights to fund and disseminate innovative R&D. The United States and more than 13 other developed countries have adopted 'Bayh-Dole' type laws permitting academic institutions and business contractors to retain the intellectual property in inventions developed under government-funded research programmes, which provide incentives to develop and commercialise such basic research further and allow new products, firms and even industries based on these technologies to emerge. Developing countries increasingly have adopted (eg, South Africa, China, Brazil and the Philippines) or begun to consider (eg, India) similar systems to promote innovation in this way.

IP protection helps firms to monetise their innovations and grow

The mechanism of 'intellectual currency' gives IP rights a value in themselves, which can be quantified, traded and otherwise taken into account in various ways in investment decisions, market capitalisation and sales and licensing revenues. These include:

- securing investment;
- growing a company's market value;
- developing new markets; and
- collaborating, including through new 'open innovation' arrangements.

As such, firms that rely on intellectual property generally succeed better than those that do not. With respect to trademarks in particular, a recent study found that UK and EU Community trademarks were positively associated not only with higher market values for UK firms that owned them, but also with higher productivity (between 10% and 30% across all firms) – with bigger gains for both seen among firms in the services sector. Finally, trademarks and other intangible IP assets can substantially enhance a firm's market value, often representing a much bigger part of an innovative firm's market value than its current and physical assets.

IP protection helps small and medium enterprises

Modern economies operate as complex networks of large and small firms. Small and medium-sized enterprises (SMEs) play an essential role in these networks – improving market efficiency, making productive use of resources, driving innovation, facilitating long-term economic growth and fostering income stability and employment. The SME sector is vital to our world economy and SMEs are increasingly

viewed as powerhouses of employment, innovation and entrepreneurial spirit.

SMEs are increasingly important contributors to innovation and creativity. In fact, SME investment in R&D in the United States grew by nearly 300% between 1985 and 1995, while large-firm R&D expenditure grew by only about 20%. Moreover, SMEs' return on R&D investment can often exceed that of large firms; SMEs in the United States and other countries have been found to contribute approximately 2.4 times more innovations per employee than do large firms.

Notably, SMEs that use IP rights report higher growth, income and employment than those that do not. At least 10% more of surveyed SMEs in the information and communication technology sector that used IP rights reported growth in turnover, market share and employment during the previous 12 months than those that had not used IP rights. Sixty one percent of firms that used IP rights reported turnover growth, as opposed to 51% among firms that had not used IP rights. The comparisons for market share growth were 49% versus 39%, and for employment growth 42% versus 22% among IP rights users and non-user SMEs respectively.

IP protection benefits consumers and society

There is no question that IP rights support the development of a continuous stream of innovative, competitive products and services that benefit consumers. Copyright underlies the continuous stream of new music and films, ever-improving business and games software, books, magazines, newspapers and other published material, photography and many other related activities, including publishing, performing, broadcasting and other media for

developing and delivering these to consumers. Patents underlie many of the products and services that society relies on for health, energy, communication, transportation and many other human and commercial needs. Products and processes that depend on patents are developed in such diverse industries as the aerospace, automotive, energy, biotechnology, pharmaceutical, chemical and information and communication technology sectors, and related transportation and distribution sectors. Trademarks support an even wider array of products and services that consumers want and depend on, from clothing and computers to food and footwear, educational and entertainment products, services, scientific products and even sporting activities. Besides their quality and consumer-protection functions, trademarks have also been shown to be useful complements to other forms of IP protection and positively linked with innovative activity and growth in the firms that use them.

Poor protection undermines the benefits of IP rights

IP rights promote consumer trust and protection against counterfeit and pirated goods. According to the UK Gowers Review, consumers benefit from intellectual property not only as a result of the stream of innovative products, inventions and creativity that would not otherwise be created, but also from the rights that protect the identities of well-known goods and services. Trademarks act as signposts of quality, preventing other firms passing off one make of good as another.

The OECD estimated in 2009, for example, that the worldwide cross-border trade in physical counterfeits alone represented a \$250 billion problem. Not included in this OECD figure were in-country counterfeiting and piracy, online infringements and the indirect costs to governments that result from all forms of counterfeiting and piracy – all of which add substantially to the overall economic impact. Research conducted by Frontier Economics for the International Chamber of Commerce's Business Against Counterfeiting and Piracy group showed that the G20 governments alone incur an additional €100 billion in indirect costs from counterfeiting and piracy: in lost tax revenues, higher welfare spending, health and other costs of sickness and death caused by unsafe counterfeit products, and economic and other costs.

The economic benefits to a country –

GDP growth, employment and tax revenues, not to mention indirect savings and gains – can thus be substantial if counterfeiting and piracy are reduced. For example, reducing software counterfeiting and piracy by 10% could generate up to \$142 billion in new economic growth, 500,000 more jobs and \$43 billion in additional taxes worldwide.

The OECD's summary of the economic effects of counterfeiting and piracy – which simply represents the natural result of inadequate IP protection or enforcement – reads like a checklist of problems that governments emphatically want to *avoid* in their economy: reduction in incentives to innovate, adverse implications for R&D and other creative activities, reduced firm-level investment and the like.

Conclusion

With the world awash in counterfeit and pirated products, government efforts to stabilise the economy and stimulate economic growth, trade and employment must include the critical role that IP protection plays in driving innovation, development and jobs.

The massive infiltration of counterfeit and pirated goods creates an enormous drain on the global economy – crowding out billions in legitimate economic activity and facilitating an 'underground economy' that deprives governments of revenues for vital public services, forces higher burdens on tax payers, dislocates hundreds of thousands of legitimate jobs and exposes consumers to dangerous and ineffective products. For business, these effects lead to greater risk, lower returns on investment, less job creation and, in the extreme, market exit.

Government efforts to strengthen IP enforcement regimes should therefore not be considered costs, but rather investments that pay tangible dividends to economic development and society. Now is the time to increase, not decrease, the resources committed to stopping the illegal trade in counterfeits and piracy. [WTR](#)

An ICC initiative

BASCAP

Business Action to Stop
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Jeff Hardy has been the coordinator of the International Chamber of Commerce initiative Business Action to Stop Counterfeiting and Piracy (BASCAP) since its creation in mid-2005. BASCAP unites the global business community across all product sectors in an effort to stop the counterfeiting of goods and piracy of intellectual property. It focuses on setting standards for global performance by governments and companies; framing decisions for policymakers; advocating the allocation of resources at the highest levels in national governments; and building global awareness.

Mr Hardy joined the International Chamber of Commerce in 1999 as a policy adviser for intellectual property, competition, biotechnology, environment, energy and transportation. Previously, he held various positions with the US government from 1985 to 1998.