CHAPTER 15

INTELLECTUAL PROPERTY AS AN ASSET FOR FINANCING INNOVATION

Pippa Hall, United Kingdom Intellectual Property Office

This chapter argues that intellectual property (IP) assets have long been recognized as assets. In the United Kingdom (U.K.), evidence suggests that there are fewer than 5000 IP valuation reports commissioned per annum, and the market is somewhat underdeveloped versus what might be considered optimal. This chapter provides research findings from projects the U.K. Intellectual Property Office has conducted, as well as more recent joint work with the British Business Bank.

Using evidence drawn from sources including U.K. government research into the question of IP asset valuation and current strategic discussions, the chapter suggests that, through engagement with IP owners and the banking industry, it should be possible to bring more clarity to the subject of IP asset valuation so that investors and innovators can benefit from asset value as collateral for innovation. This will benefit the wider economy through further innovation where firms are able to collateralize their intellectual property.

IP as an asset for financing innovation

The theme of innovation finance is of direct relevance to ongoing efforts by policymakers to improve the ease with which firms can unlock the investments they make in intellectual property through financial markets. The focus of government intervention is to make it easier to maximize the return on IP through better knowledge, information flows, access to finance, insurance, and trading mechanisms. This will incentivize the creation of new ideas, increase the share that is commercialized, and thus contribute to innovative activity, which enhances economic growth.

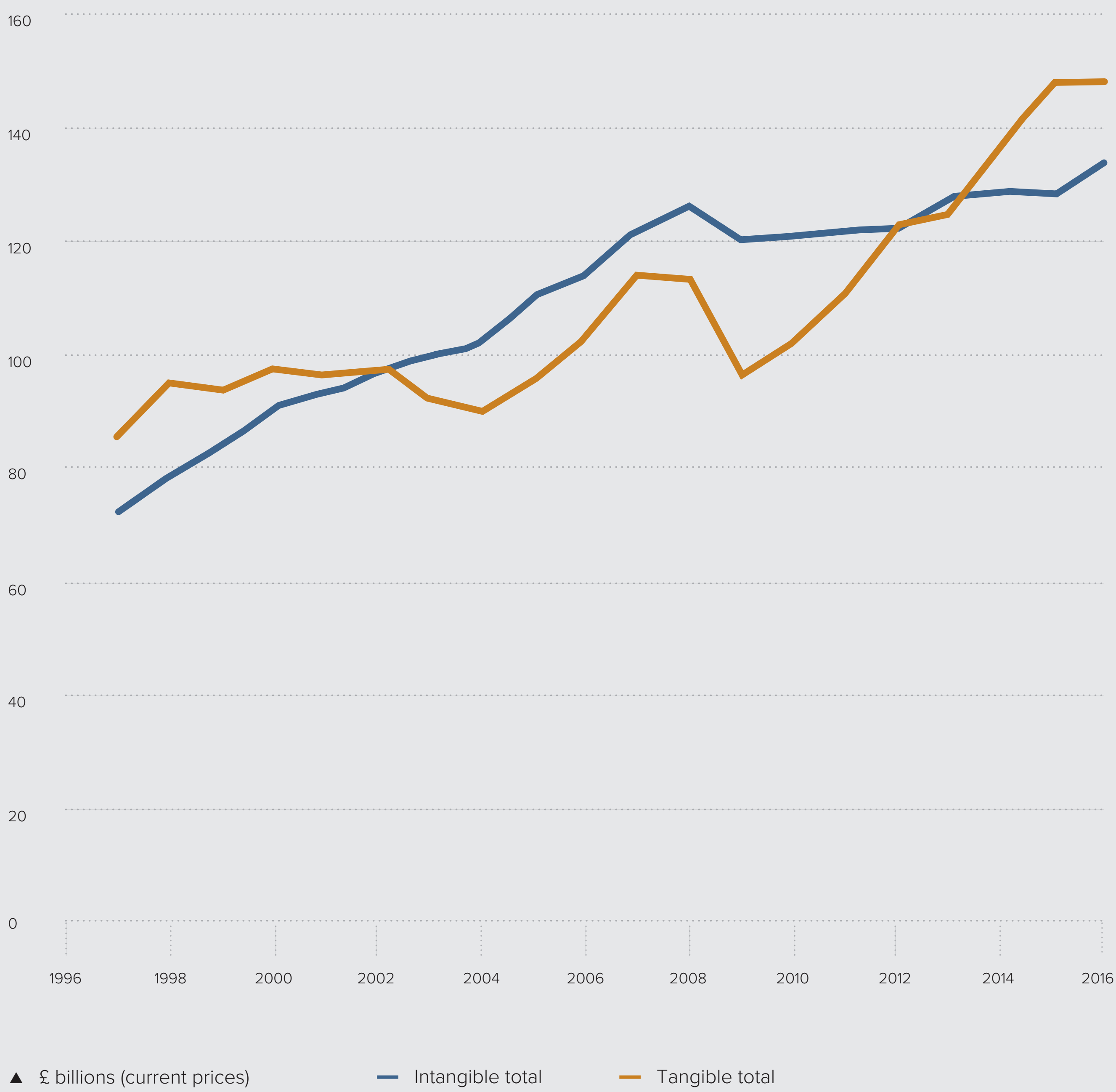
Too often, IP-rich firms find it difficult to collateralize their investments to unlock future growth funding, especially when compared with those firms holding more conventional assets. There is a mismatch between the potential value created by companies with strong intellectual property portfolios and the investment opportunities afforded by investors. This is a problem highlighted as far back as the 2006 Gowers review, for which we have undertaken research to improve the evidence base, and more recently, in our joint work with the British Business Bank and the wider financial sector.

Whilst there are no easy solutions within this complex set of interactions between businesses and financial institutions, we have been able to make clear what the problems are, describe the methods of valuation, and improve our understanding and use of IP assets as a fundamental driver of economic growth. This chapter describes some of the macro context for why this work matters, lays out some of the problems and challenges which need to be overcome, and finally points to some of the solutions which have been suggested in the U.K. and elsewhere; this includes the U.K. experience of how policymakers may work with the financial services sector to enable businesses to leverage their investment in IP.

For the U.K., the growth in investment in intangibles, such as those protected by intellectual property, has been substantial. Between 1997 and 2016, investments in intangibles increased by 87% from £71.91 billion British pounds to £134.29 billion (Figure 15.1).[1] In 2016, almost half of the assets U.K. firms

FIGURE 15.1

U.K. market sector intangible and tangible investment, 1997-2016



Source: U.K. Office of National Statistics (ONS), 2019.

invested in were intangible knowledge assets, rather than tangible assets. However, it is not only the volume amounts which are striking, but also their growing importance to the economy. This pattern of the growth of intangible investment has also been studied by other developed economies.

The value of IP assets and the fact that these assets are often "hidden in plain sight" is the principal point of concern in the U.K. Intellectual Property Office (IPO) 2017 *Hidden Value* report. This report describes the potential of intangible value:

> More than 80% of enterprise value attributed by the stock market is not underpinned by tangible assets and is based around intangible assets. The implied importance of IP for U.K. companies appears to be borne out by successive research reports. In 2011 the U.K. market sector invested £137.5 billion in knowledge assets compared to £89.8 billion in tangible assets; of this, just under half of knowledge based investment (£65.6 billion) is thought to have actual or potential protection through the use of formal intellectual property rights.[2]

Through its work on IP and the economy, the European Union (EU) European Observatory on Infringements of Intellectual Property Rights has produced several reports estimating the value of IP on specific industrial sectors as a means of characterizing the threats posed to that value through fraud. In a recent report, the Observatory found 1) that Europe's intellectual property rights (IPR)-intensive industries generated 29.2% (63 million) of all jobs in the EU during the period 2014 to 2016, 2) that 38.9% of all employment in the EU (83.3 million) can be attributed, directly or indirectly, to IPR-intensive industries, and 3) that 45% of the total economic activity in terms of gross domestic product (GDP) in the EU is attributable to IPR-intensive industries worth EUR 6.6 trillion.[3] The U.K.'s recent report *Using Intellectual Property to Access Growth Funding* acknowledges both the importance of IP asset valuation and the need to improve its delivery, pointing to an "unvirtuous" circle of disinvestment: whereas lenders are unwilling to risk investment, essentially driving costs up, innovators struggle to succeed the first time—a common occurrence amongst innovators, start-ups, and entrepreneurs—and then find it difficult to access additional funds elsewhere.[4]

Our understanding of IP—its desired functions and its unintended consequences—has evolved over the years. In the past, as IP assets were concretized through registration, and a bureaucracy was established to administrate this task, perhaps the most important mutation trademarks underwent in the U.K. was to transform from a means of protecting against fraud into an asset property. Historian Lionel Bently cites the 1875 Trade Mark Registration Act's reference to the "proprietor" of the "title" of a trademark as part of the "rhetoric of property" which facilitated this change.[5]

Ownership of IP assets has also increased (Figure 15.2). Between 2002 and 2019, total IPR applications to the U.K. IPO doubled from 75,436 to 152,322. Trademark applications increased 162% from 36,013 to 107,527; design applications increased 169% from 9,512 to 25,545; while patent applications decreased by 36% from 29,911 to 19,250.

Where once they were perceived as purely defensive instruments, grants and registrations for patents, trademarks, and designs are now regarded as assets. The benefits of these assets are frequently stressed by IP rights administrators. For example, in the 2017 World IP Report, WIPO estimates that one-third of the value of goods is derived from "intangibles such as technology and branding".[6] Notwithstanding these important and widely accepted findings, there remains a problem in transferring the business and legal community's enthusiasm for registration into hard cash. This was succinctly described in a recent edition of the WIPO's online magazine:

> Intellectual Property (IP) is now the most valuable asset class on the planet, and yet establishing IP value and exploiting the economic potential of IP assets remain much of a mystery to businesses, financiers and investors.[7]

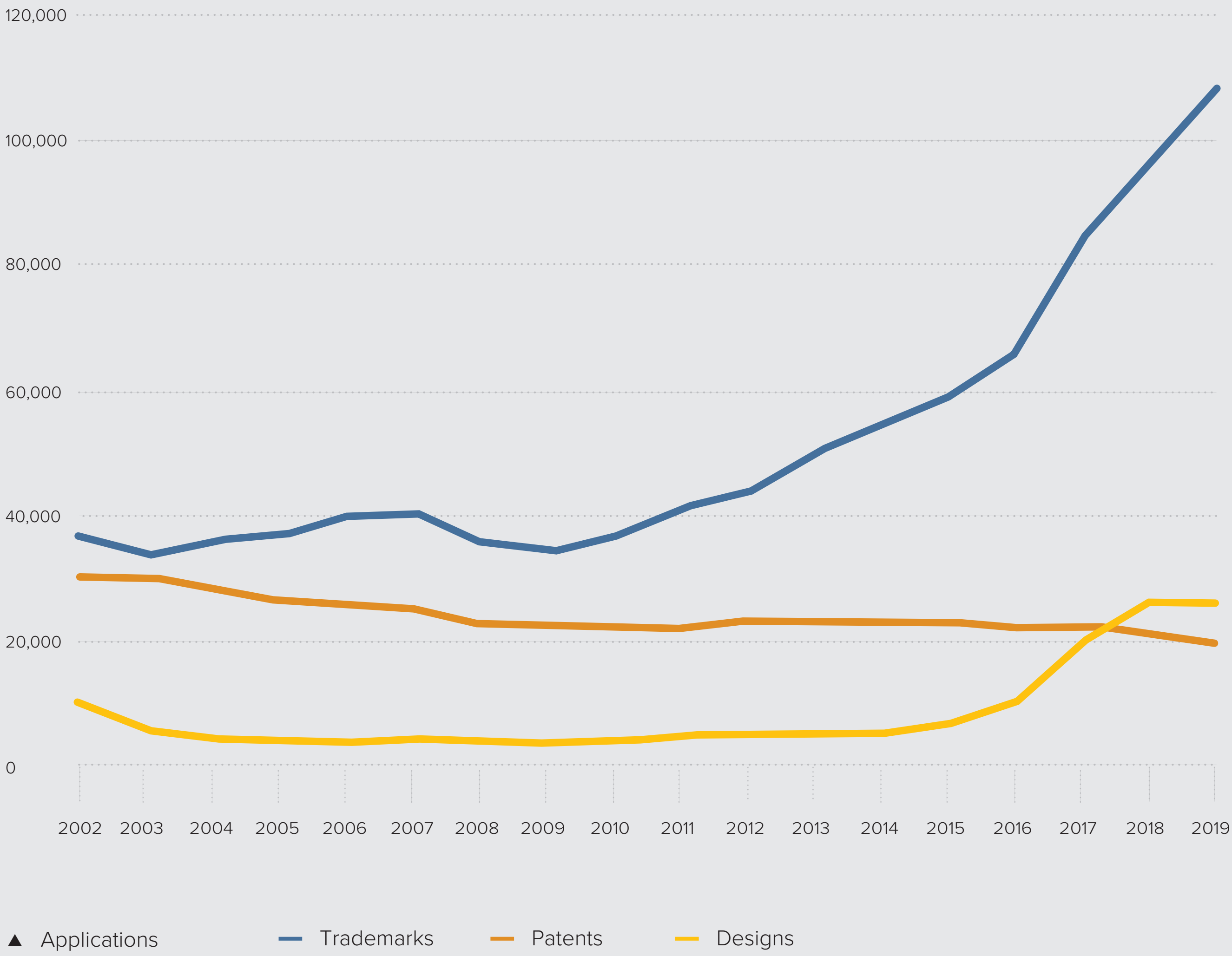
IP valuation is consistently raised as a barrier to businesses being able to use their IP as collateral for debt funding. This has been confirmed by research conducted by U.K. IPO and the British Business Bank in 2017 and 2018:

> IP and other intangible assets can be difficult to value, especially if they are innovative and therefore untested. Moreover, the value of such assets is often context-specific in that they may only be valuable within the firm where they are enveloped due to the way that they interact with other firm assets and thus may not be as valuable outside of that firm. Unsurprisingly, a 2010 survey showed that only 3% to 4% of SMEs had ever tried to assess the value of their IP.[8]
>
> In any case, there is no single market-wide or agreed methodology for valuing IP. Without a consensus approach, it is difficult to independently verify the value attributed to a piece of IP, which is further exacerbated by the lack of transaction data. The complexity of IP valuation also means that specialist expertise is needed. Indeed, it is estimated that only about 600 people work in this field in the U.K. This scarcity creates a cost for determining the value of IP and, in the absence of a scalable process, limits growth.[9]

In the U.K., the *Hidden Value* report estimates that between 3,000 and 4,000 specific IP valuations occur annually. These are conducted by around 600 practitioners with specialist skills regarding the valuation of IP assets. The numbers are low; they characterize the mismatch between the IP community's belief in the value of IP and the financial sector's lack of certainty concerning how the valuation of innovation—codified by IP—should be conducted. The extent of this problem is demonstrated by the report's uncertainty concerning the actual value of the IP assessed in the U.K. today. The figure is described as "not less than £50 million annually and is likely to be considerably higher—perhaps closer to, but not as high as £1 billion".[10] The Hidden Value report is one of the most significant contributions to the understanding of the IP landscape conducted by the IPO in recent years. It opens up the prospect of further research into the objectification of IP assets through

FIGURE 15.2

Total IPR applications to the U.K. IPO



Source: Intellectual Property Office.

consistent, standardized, and methodologically sound practices. It characterizes a tremendous gap in the market, and it identifies a problem: the potential asset value of innovative companies' IP may be undervalued. Furthermore, it provides evidence for those involved in the financing of start-ups and innovative IP-dependent industries that the value of existing IP can be understood and quantified. It also makes it clear that the failure to address this problem will not make it go away. Innovators and investors will continue to require objective evidence concerning the value of IP, both as potential and actual assets. Here, the U.K. IPO research, in partnership with IP *valuers*—those who appraise the value of IP, will provide valuable evidence.

Evidence from IP administrators in the U.K. chimes with the views of our international partners. The U.K. IPO's report *Banking on IP* was published in 2013, and it identifies the mismatch between the potential value created by companies with strong intellectual property portfolios and the investment opportunities afforded by investors:

> Whilst there are improvements needed to the practicalities (but not the rules) of registration, the basic step that is missing is a clear inventory of the IP and intangibles, without which a lender can never be certain that the assets which should be present are in fact to hand.
>
> One of the most unhelpful aspects of the IP financing debate is the tendency to conflate the terms 'technology' and 'IP'. There are millions of intangible business assets whose value is either not being leveraged at all, or only being leveraged inadvertently. Whilst it is that technology and knowledge-based companies will own important IP, there are many thousands of U.K. businesses with IP (registered and unregistered) who would not think of themselves as being in the technology space, including many of the U.K.'s globally recognised creative brands and manufacturers.[11]

Subsequent reports, notably *Trends at U.K. Intellectual Property Office 1995-2017* and *Hidden Value: A Study of the U.K. IP Valuation Market*, describe U.K. businesses' sophisticated registration habits to deliver increasing volumes of IP registration with international and national registrations systems. The reports also comment on a recurring problem: namely the failure to transfer the implied value of IP registrations into investment. As evidence, the *Hidden Value* report estimates that less than 5,000 IP valuation reports are commissioned in the U.K. per annum.

> Compared with tangible asset-related practices, IP valuation volumes appear to fall below what might be expected, given the substantial investment directed towards intangible asset creation. Where valuation activity serves an established need, the actual volume of activity will be most strongly influenced by factors outside the IP valuation market. Whilst additional available volumes are difficult to quantify, opportunity-led IP valuations appear to have the best prospects for growth in the near term. Market failings are most likely to lie in undue influence from the vertical relationships between intermediaries and valuers (though these also provide end users with a valuable signposting service) and in weak searching behaviour.[12]

Before concluding that an injustice is being done to the development of IP assets by the financial sector, it is worth considering what market conditions exist that might explain this situation. Perhaps the financial sector's reluctance to routinely lend capital on the strength of collateral in the form of patents, trademarks, designs, and copyright resides in their nature. These are intangible assets and, in an industry whose folk memory now includes both tulips and subprime mortgages, a reluctance to invest in the potential identified by Rothstein in his 2018 discussion of J.K. Rowling's artistic work can be understood.[13] There are two kinds of assets associated with IP: 1) the potential value of untested products such as inventions, trademarks, designs, and artistic works that have not yet reached the market, and 2) well-established products which have been trading successfully for centuries. Valuers and investors need to assess risk; untested potential may not be realized, and proven success may be difficult to replicate. For investors working in the aftermath of the Great Recession, it is worth asking whether the words "intangible" and "non-existent" might be interchangeable. Indeed, although the Bank of England and the HM Treasury websites are surprisingly IP-free, insurance brokers at Lloyd's offer policies designed to protect clients from unforeseen IP disputes. In other words, far from being neutral, the financial sector identifies specific problems created by modern, high-volume IP registration systems—ones that might inhibit growth and add to the costs of innovative companies through accidental infringement.[14]

There is, however, growing evidence that incentives to invest in IP-rich companies are strengthening. The simplistic dichotomy regarding the nature of intangibles characterized above belies the fact that all valuations are, in one way or another, vulnerable to an unexpected change of circumstances. Moreover, it is the entrepreneurial, fleet-footed businesses that seem most likely to prosper in our rapidly changing technical and economic environments. IP represents a global growth area, and those who are prepared to invest will profit. The U.K. Government's FinTech Sector Strategy initiative stresses the importance of emerging technologies to the U.K.'s financial sector. IP has a crucial role in the valuation, development, and deployment of this strategy. Indeed, if we adopt Bently's approach to the transformation of trademark registrations into forms of property, or assets, so that we seek the "rhetoric of valuation", it seems clear from the FinTech report that, underpinning the innovations and product developments of creative companies in the financial sector, we find IP. Patents, trademarks, design registrations, and copyright material will guarantee the value created by successful innovators in financial industries—just like everywhere else.

As well as outlining the regulatory framework, standards, and methodologies for assessing the value of IP assets, *Hidden Value* highlights the IPO's IP Financial Toolkit (now called IP for Investment) and IP Audit programs, which provide financial assistance to companies already engaged with one of the IPO's business support schemes. The report acknowledges that the "reach" of the IP Audit is, to some extent, limited to companies already aware of the importance of IP asset valuation. However, it does suggest that there is justification for broadening the scale of these interventions. It also acknowledges that changes in U.K. accounting regulations alter the way intangible assets are recognized on balance sheets following mergers or acquisitions and that steps are being taken to introduce qualifications for IP valuers. Two action points emerging from the report stand out. As well as connecting the IP and banking regulatory bodies to facilitate structural improvement, the IPO is exploring the possibility of providing support for SMEs directly with respect to IP asset valuation.

In recent roundtable discussions between the British Business Bank, HM Treasury, and the IPO, explanations for any ambivalence from the financial sector towards the credibility of IP asset valuation stemmed from regulatory frameworks within the banking sector, legal enforceability issues regarding the objectivity of valuation, and the liquidity of IP intensive companies. The principle is accepted, but the devil is in the details.

A key challenge identified in the IPO's roundtable discussions was the lack of awareness—amongst both businesses seeking finance and enterprises in the financial services sector trying to provide it—of IP's role as a valuable, albeit intangible, asset and how it may be used to generate cash flow. This means that because IP assets may not be identified or effectively deployed in business strategies, opportunities to secure their full commercial value may be missed. For financiers, it means that IP assets may not be fully appreciated in mainstream lending decisions. To explore these issues, the IPO has committed to research. More information about the practice and impact of IP asset valuations will strengthen the impact of our messages. Two initial research projects have been identified. One is a partnership between the IPO and leading U.K. banks to analyze business loan portfolios to measure the stability of companies with strong IP portfolios. The second partners the IPO with IP valuers themselves, so that we can track the progress of IP intensive companies and analyze the development of their intangible value through time.

The U.K. is not alone in its interest in IP asset valuation as a means of encouraging investment. In the United States (U.S.), Canada, Singapore, China, and the EU, similar approaches are being tested. One way to characterize our approach is to suggest that the instrument of IP asset valuation does not merely increase IP owners' leverage on lenders; it also develops understanding that will benefit all sectors. Sectors are created through specialisms reinforced over time; entrepreneurs don't see sectors—they only see connections and opportunities. Innovative, independent companies in the U.K. are bridging the gap between financial and intellectual assets by developing their own expertise in valuation and its realization. Since 2000, the UK-based commercialization company, IP Group, has focused on linking university-originated research with investors through carefully considered IP asset valuation and development. Innovative, entrepreneurial approaches to the issue of valuing IP assets can successfully transform valuation into investment. Approaches like this exemplify the fluidity and creativity of top-class businesses in the U.K. Whilst IP and finance might traditionally be regarded as rather conservative or "uncreative" realms, in the context of IP asset valuation, a spirit of invention is required to marry the powerful beneficial forces of finance and IP.

Assessing the value of IP assets and disseminating the benefits of doing this are complex tasks. It will take time to build trusted partnerships in a sector where confidentially, extensive regulation, objectivity, and security are paramount. However, by adding to our data sets at national and global levels, robust IP asset valuation can be delivered. IP administrators must engage banking and financial specialists in the regulation of IP asset valuation so that it becomes a widespread, standardized practice. To achieve this, a global and holistic approach to valuing IP must be developed. This will reduce the risk of these assets being overvalued by the financial sector.

Notes:

1 U.K. Office of National Statistics, 2019.

2 IPO, 2017.

3 EPO/EUIPO, 2019.

4 British Business Bank et al., 2018.

5 Bently, 2008.

6 WIPO, 2017.

7 Ogier, 2016.

8 IPO, 2017.

9 British Business Bank et al., 2018.

10 IPO, 2017.

11 IPO, 2013.

12 IPO, 2017.

13 Rothstein, 2018.

14 Rothstein, 2018.

References:

Bank of England Quarterly Bulletin. (2018). *London as an International Financial Centre. London*, 517.

Bently, L. (2008). From Communication to Thing: Historical Aspects of the Conceptualisation of Trade mark as Property. In G. B. Dinwoodie & M. D. Janis (Eds.), *Trade Marks Law and Theory, a Handbook of Contemporary Research* (41). Cheltenham: Edward Elgar.

Bently, L. (2012, November 3). What is Intellectual Property. *The Cambridge Law Journal, 71*, 501–505.

British Business Bank & IPO. (2018). *Using Intellectual Property to Access Growth Funding*. Sheffield: British Business Bank.

EPO/EUIPO. (2019). *IPR-Intensive Industries and Economic Performance in the European Union Industry-Level Analysis Report* (3rd ed.). Munich and Alicante: EPO and EUIPO. Retrieved from http://documents.epo.org/projects/babylon/eponet.nsf/0/9208BDA62793D113C125847A00500CAA/$File/IPR-intensive_industries_and_economic_performance_in_the_EU_2019_en.pdf

EUIPO. (2018). *IP Litigation Landscape*. Alicante: EUIPO.

Department for International Trade, HM Treasury, & Innovation/Finance. (2019). *U.K. Fin Tech State of the Nation*. London: Department for International Trade.

House of Commons Briefing Paper. (2019, July 31). F*inancial Services: Contribution to the U.K. Economy*, No. 6193). London: The Stationery Office.

Intellectual Property Office (IPO) (2004-2012). IPO Annual Reports. Retrieved May 2020, from https://webarchive.nationalarchives.gov.uk/tna/20140603095050tf_/http://www.ipo.gov.uk/about/whatwedo/ourpublications/ourpublications-review.htm

———. (2013). *Banking on IP? The Role of Intellectual Property and Intangible Assets in Facilitating Business Finance Final Report*. Newport: IPO.

———. (2017). *Hidden Value: A Study of the U.K. IP Valuation Market*. Newport: IPO. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/647086/IP-Valuation-Market.pdf

———. (2018, July). *Trends at U.K. Intellectual Property Office 1995-2017* [First published by The Intellectual Property Office. Revised version March 2019], Newport: IPO. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/784573/IP-Trends-2018.pdf

———. (2019). Facts and Figures: patent, trade mark, design, and hearing data: 2019. Retrieved May 2020, from https://www.gov.uk/government/statistics/facts-and-figures-patent-trade-mark-design-and-hearing-data-2019

OECD. Retrieved from http://www.oecd.org/industry/intellectual-property-statistics-and-analysis.htm

Ogier, J. P. (2016, February). Intellectual property, Finance and Economic Development. *WIPO Magazine*. Retrieved from https://www.wipo.int/wipo_magazine/en/2016/01/article_0002.html

Rothstein, M. (2016, September). The Value of Copyright. *Intellectual Property Journal, 28*(3): 295–302.

Trade Marks and Service Marks (Amendment) Rules 1989. (1989). U.K. Statutory Instruments No. 903.

U.K. Office of National Statistics (ONS). (2019). Developing Experimental Estimates of Investment in Intangible Assets in the U.K.: 2016. Retrieved from https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/articles/

World Intellectual Property Organization (WIPO). (2017). *World Intellectual Property Report 2017, Intangible Capital in Global Value Chains*. Geneva: WIPO. Retrieved from https://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2017.pdf