

RICS professional standards and guidance, global

# Valuation of intellectual property rights

2nd edition, March 2020



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## RICS guidance note

2nd edition, March 2020

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## RICS professional standards and quidance

## RICS guidance notes

## **Definition and scope**

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## **Publications status**

Type of document	Definition		
RICS Rules of Conduct for Members and RICS Rules of Conduct for Firms	These Rules set out the standards of professional conduct and practice expected of members and firms registered for regulation by RICS.		
International standard	High-level standard developed in collaboration with other relevant bodies.		
RICS professional statement (PS)	Mandatory requirements for RICS members and RICS regulated firms.		
RICS guidance note (GN)	A document that provides users with recommendations or an approach for accepted good practice as followed by competent and conscientious practitioners.		
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RICS jurisdiction guide (JG)	This provides relevant local market information associated with an RICS international standard or RICS professional statement. This will include local legislation, associations and professional bodies as well as any other useful information that will help a user understand the local requirements connected with the standard or statement. This is not guidance or best practice material, but rather information to support adoption and implementation of the standard or statement locally.		

## 1 Introduction

This guidance note is restricted to the valuation of intellectual property (IP), a subset of intangible assets. Its purpose is to expand on the *International Valuation Standards* (IVS) and *RICS Valuation – Global Standards* (Red Book Global Standards) in order to clarify the legal, functional and economic characteristics of IP that should be considered and reported on in an IP valuation.

This guidance note builds on, and should be read in conjunction with, the following sections from IVS and Red Book Global Standards:

- IVS:
  - IVS Framework
  - General Standards (IVS 101 to IVS 105)
  - IVS 200 and
  - IVS 210.
- Red Book Global Standards:
  - VPGA 6.

Paragraph 20.1 of IVS 210 defines an intangible asset as: 'a non-monetary asset that manifests itself by its economic properties. It does not have physical substance but grants rights and/or economic benefits to its owner.'

IP is a legal concept that refers to creations of the mind which are derived from intellectual or creative effort and for which exclusive rights are recognised at law. These rights enable the owner to prohibit others from using their property without permission. IP can be categorised as registered or unregistered, and includes:

- trademarks
- patents
- copyright
- design rights
- plant breeders' rights and
- trade secrets, which in this document mean confidential information that has commercial value.

IVS 210 refers to certain IP rights when describing categories of intangible assets, but does not provide detailed guidance about the characteristics of particular categories of IP that should be considered in a valuation.

## 1.1 Scope

The purpose of this guidance note is to describe how the legal, functional and economic characteristics of IP influence the definition of the IP that is the subject of the valuation (subject asset), the extent of investigation, the choice of valuation methodology and the valuation analysis. Limitations in the scope of this guidance note are:

- The identified legal, functional and economic characteristics of different categories of IP are not intended to be exhaustive.
- The legal rights attached to specific IP rights may vary by jurisdiction. This guidance note identifies general principles but does not cover variations in rights between jurisdictions.
- As with other asset categories, the value of IP can vary significantly under different bases of value. Bases of valuation, as described in IVS 104 and Red Book Global Standards VPS 4, are beyond the scope of this guidance note.
- There is a wide range of applications of IP valuation; it is beyond the scope of this
  guidance note to address matters specific to each application. Appendices have
  been used to draw attention to factors of specific relevance to IP financing and the
  determination of IP royalty rates.

## 1.2 Effective date

This guidance note is effective three months from publication.

# 2 Defining the subject IP and assessing legal characteristics

Paragraph 20.2 of IVS 210 states:

'Specific intangible assets are defined and described by characteristics such as their ownership, function, market position and image. These characteristics differentiate intangible assets from one another.'

The subject of a valuation can be a single right or a portfolio of complementary IP rights and other intangible items. IP rights that are frequently the subject of transactions and valuation reports are those associated with brands, technology, artistic works and data. The term 'technology' is often used to describe a group of complementary assets that can include patents, confidential information, registered designs and copyright.

In order to illustrate frequent commercial applications, and due to similarities in the economic attributes of each grouping, this guidance note separately considers:

- brand-related IP (brand-IP)
- technology-related IP (tech-IP)
- artistic-related IP (artistic-IP) and
- data-related IP (data-IP).

These are collectively referred to as IP assets.

The commentary in this guidance note covers different types of IP within each category (for instance, trademarks, copyright and design rights are discussed within brand-IP).

Commercial substance is considered when grouping IP within these categories. For instance, if a brand logo is protected by copyright, this guidance note will categorise it as brand-IP, rather than artistic-IP, to mirror its commercial use.

## 2.1 Definition of the subject IP

IP assets can comprise several distinct legal rights and the ownership of these rights can vary between jurisdiction and class of product and service. The valuer should therefore identify, define and describe the specific rights that are the subject of a valuation report. Valuers must also consider the purpose of the valuation (see VPS 1 section 3.2 (f) from Red Book Global Standards and IVS 103 10.2); for instance, a valuation supporting an IP transaction will be influenced by the pooling of IP rights in the transaction.

When considering whether an IP right should be valued as a standalone asset or together with a group of complementary assets, the valuer should consider the following factors:

- the ownership of the rights
- normal commercial practice in the relevant industry regarding the pooling of IP rights for licensing or sale

- the separability of individual rights and
- the alignment of useful economic life and other economic characteristics of the IP.

A valuer should clearly

- identify the legal rights that underpin the subject asset
- assess the breadth and strength of these rights and
- indicate whether ownership of the rights has been established.

## 2.2 Brand-IP

As there is not a generally accepted legal or financial definition of the term 'brand', a valuer should define the pool of rights that are the subject of a brand valuation. The valuer should consider the following to comprise IP:

- registered trademarks
- common law rights in trademarks (depending on the law within the relevant jurisdiction)
- copyright in artistic works subsisting in the brand design/logo and
- design rights/registered designs.

In certain licences and transactions, a broader pool of rights might be included in the definition of 'brand':

- copyright in brand guidelines and marketing collateral
- recipes, formulations and other product-related confidential information and
- URLs and social media sites.

When defining the subject asset and reviewing comparable transactions, the valuer should consider whether it is appropriate to treat such items as complementary to the subject trademarks, copyright and design rights, or whether they should be separately valued.

Each form of legal protection can vary by jurisdiction, so a brand can consist of multiple rights that differ by jurisdiction and by class of product or service. The valuer should consider the appropriate level of segmentation for the valuation as different legal rights might result in different valuation assumptions by country or product category.

There are different methods of determining the ownership of each type of IP; some rights are automatic, while others require examination and registration by the appropriate body.

A further complication is that ownership of each right can be vested in different parties. For instance, where a trademark includes an artistic work, this might be protected by copyright, which is a separate and distinct right from the trademark. Also, the two assets may be owned by different parties. This is of particular relevance, as the creator of an artistic work is the initial owner of the copyright (rather than the party that paid for the work).

The legal remedies available for breach of copyright or trademark protection vary, and where both rights subsist in a brand, either or both can be used for enforcement.

Within each jurisdiction, trademark registrations are by class and in respect of specific goods and/or services. Registration in one class does not necessarily provide the right to use the mark in another class. Common law trademark rights vary by jurisdiction (some countries have a 'first-to-file' regime) and are typically only fully tested in a passing off action.

## 2.3 Tech-IP

Tech-IP includes:

- patents
- designs
- plant breeders' rights
- circuit layout rights
- copyright
- technical know-how and
- trade secrets pertaining to formulations and other technical information.

In some instances, it is appropriate to value specific rights on a standalone basis, while in others it is appropriate to identify a pool of complementary assets. In instances where the term 'technology' is used to describe a subject asset, the valuation should clearly identify the specific rights included in the definition.

The valuer should be aware that the value of a specific right can vary depending on whether it has access to other assets required to commercialise it.

#### 2.3.1 Patents

For a set period, patents provide patentee(s) with the exclusive right to exploit an invention. In return for this right, the invention that is the subject of patent protection is published about 18 months after the first filing date. Patents are governed by specific country legislation and also by international treaties, so the extent to which a technology benefits from patent protection can vary by jurisdiction.

The term of patent protection is typically 20 years, but there are some exceptions to this rule. For example, some jurisdictions have a two-tier patent system that includes innovation or utility patents, which have less onerous patentability requirements and shorter periods of protection. An extension to the patent term may also be granted under certain circumstances.

The claims within a patent specification define the scope of the exclusive right conferred by the patent (or the protection sought by a patent application). The breadth, validity and enforceability of the claims are therefore central to the value of a patent.

Patents are generally subject to a lengthy and complex examination period prior to grant. The earnings and risk profile of a patent application differ from those of a granted patent. This is because a patent application might not proceed to grant or, if it does, the claims of the granted patent may be of narrower scope than the initial patent application. It is therefore necessary to differentiate between a patent application and a granted patent.

For patent applications, the communication between the regulatory authority and applicant, referred to as the prosecution history, can provide insight into obstacles to

particular claims. Patents expire if maintenance fees are not paid, so the grant of a patent does not imply that it remains in force until the end of the patent term.

Even once granted, the validity and scope of a patent can be challenged, thus an enforcement risk remains after grant. A granted patent can subsequently be found to be invalid due to a range of factors, including:

- the existence of prior art that was not identified during the prosecution process and
- flaws in the construction of the patent claims, resulting in a definition of the invention that is less than full, clear, concise and exact.

The commercial strength of a patent can be compromised if it is difficult to prove that another party is infringing it. This reduces the ability of the patent owner(s) to enforce their exclusive right to the invention. The ease of proving infringement differs depending on the subject matter of a patent.

The right to the grant of a patent resides with the inventor(s) or owner(s) of the underlying technical innovation. Ownership can be assigned from the inventor(s) to the applicant or patentee in terms of a contract of employment or subsequent agreement. The rights of the party claiming patent ownership can be compromised without proper transfer of ownership from the inventor(s). Inventorship and ownership can be complicated legal issues that have significant valuation consequences.

A patent excludes other parties from practising the invention but does not guarantee that the owner(s) have the freedom to exploit the patent without infringing patents owned by other parties. A freedom to operate search can be carried out to provide a legal opinion as to whether the subject of a patent can be used without infringing other rights.

A patent that relates to an industry standard may be the subject of licensing obligations required by the standards organisation. These obligations can limit the enforceability of the patent.

#### 2.3.2 Trade secrets

The term 'trade secret' generally refers to information that:

- confers an economic benefit
- is not in the public domain and
- is subject to reasonable efforts to maintain its confidentiality.

Confidentiality can be protected:

- through physical, legal and electronic security measures
- by limiting access to the information within the organisation
- by contractual obligations and
- by enforcement of non-disclosure and non-compete agreements.

Risk of inadvertent disclosure and value impairment is influenced by the strength and enforcement of security measures. Clear identification and marking of trade secrets reduces the risk of unintended disclosure.

A trade secret has no protection against independent creation of the same know-how by a third party. The period of legal protection is not limited unless protection is reliant on contractual terms.

A trade secret that is subsequently integrated into a patent application, or registered copyright, enters the public domain and loses the right of protection as a trade secret.

## 2.3.3 Copyright

Copyright can protect certain documented subject matter, including know-how, designs, integrated circuit designs and computer software code (which may be protected by both patents and copyright).

Copyright protects the expression of the work and not the idea or process underlying the work. In the case of software, the source code represents the expression of the work. Other legal characteristics of copyright are identified in section 2.4.

Industrial designs protect the visual design of objects that are not purely utilitarian. These can be registered in individual jurisdictions or through international treaties that provide a single application mechanism for registering an industrial design in several countries. The period of protection depends on the relevant jurisdiction. Some jurisdictions also provide protection for unregistered designs.

## 2.4 Artistic-IP

Paragraph 20.3 (c) of IVS 210 states:

'Artistic-related intangible assets arise from the right to benefits from artistic works such as plays, books, films and music, and from non-contractual copyright protection.'

Copyright is the primary IP protecting this category of intangible asset. As copyright is vested in the human creator of the work, the author of the work and the copyright holder should be established if there has been an assignment of ownership. Ownership rights can be influenced by employment contracts or other contracts entered into by the author. Computer-generated works can pose problems in establishing the authorship necessary for copyright protection.

Registration is not necessary to establish copyright protection, but copyright can be registered in some jurisdictions, and this can support copyright litigation. In some instances, the copyright owner's protection can be enhanced through notification that the subject item is subject to copyright.

If title to the copyright has passed through a number of hands, a clear chain of title to the work and the rights attached thereto should be established.

In describing the subject asset, the valuer should identify the type of work (e.g. architectural, literary, dramatic, musical, artistic, cinematographic or sound recording) and potential sources of earnings, such as broadcast, distribution, display and reproduction.

Copyright provides a range of rights to an original work, and its total earnings potential can be split between the owners of different rights. It should therefore be determined whether the subject asset is the unencumbered ownership of the copyright, or a right to use the original work for a limited purpose.

The period of protection depends on the relevant jurisdiction and subject matter.

Depending on the jurisdiction, dual protection under copyright and design registration may be permitted or prohibited.

## 2.5 Data-IP

Data assets can consist of:

- raw data
- organised compilations of data
- database schemas, which describe the structure and workings of a database and
- algorithms, or other insights that have been extracted from the data.

In describing the subject asset, the component parts should be identified and described. Depending on the purpose of the valuation, the subject asset can consist of a pool of complementary data assets, or in specific items, such as an algorithm.

Whether or not copyright subsists in data depends on whether it represents a literary work. Practice will vary by jurisdiction, but factors that are usually relevant include whether it is:

- original
- in a material form and
- a 'literary', 'dramatic', 'musical' or 'artistic' work created by a human.

Copyright can subsist in multiple individual works within a database, and in a compilation of works.

Data can be protected as a trade secret to the extent that confidentiality can be maintained. The characteristics of trade secrets are described in section 2.3.2. In addition to copyright and trade secrets, some jurisdictions have specific database protection laws.

Consideration should be given to the extent that personal data protection laws, such as the EU *General Data Protection Regulation* (GDPR), dilute the protection of data-IP.

Where data is used in conjunction with software, but is valued as an identifiable asset, care should be taken to ensure that there is no overlap between the two intangible assets, such as in circumstances where algorithms extracted from a dataset may be embedded in software that is distinct from the data asset.

To the extent that copyright subsists in components of a database, ownership vests in the human creator of the work, as described in section 2.4. Ownership of personal data, and restrictions to its use, can be subject to jurisdiction-specific laws.

# 3 Disclosing the extent of investigation and the basis of value

## 3.1 Restrictions in scope

Paragraph 20.3 (i) of IVS 101 (see also VPS 2 section 1 of Red Book Global Standards) states:

'Any limitations or restrictions on the inspection, enquiry and/or analysis in the valuation assignment *must* be identified ... If relevant information is not available because the conditions of the assignment restrict the investigation, these restrictions and any necessary assumptions or special assumptions ... made as a result of the restriction *must* be identified.'

As required by Red Book Global Standards, any assumptions or special assumptions must be identified and recorded both in the terms of engagement and in the report (VPS 1 section 3.2 (k) and VPS 3 section 2.2 (i)). In addition, paragraph 20.7 of IVS 102 states:

'If, during the course of an assignment, it becomes clear that the investigations included in the scope of work will not result in a credible valuation, or information to be provided by third parties is either unavailable or inadequate, or limitations on investigations are so substantial that the *valuer* cannot sufficiently evaluate the inputs and assumptions, the *valuation* assignment will not comply with IVS.'

The value of IP assets is influenced by the strength of the underlying legal rights and their commercial utility, which is determined by their functional and economic characteristics. Hence, the valuation of these assets should use multidisciplinary inputs.

In accordance with PS 2 section 2 of Red Book Global Standards, before undertaking a valuation of IP, RICS members must consider whether they are competent to identify and assess the relevant characteristics of the subject asset, and/or whether other expert opinion is required.

As legal, technical and market factors can materially influence the value of IP, it is important for the user of a valuation report to be informed of the extent to which these factors have been assessed, or if they are covered by special assumptions.

Where an intangible asset is international in its use, or potential use, and the rights are dependent upon statutory protection, expert legal advice may be required. A valuer should disclose whether ownership of the subject IP has been determined through a legal assessment or whether this is a specific assumption of the report.

Assessment of the functional utility of patents and other categories of tech-IP may require a high level of technical expertise. Disclosure should be made as to whether there have been any limitations to the scope of the functional assessment of the tech-IP, including matters such as the breadth and validity of the claims and freedom to operate.

The future economic performance of brand-IP is influenced by the attitudes of buyers of the branded products and services. RICS members should disclose whether there have been any limitations to the scope of the market and functional assessment of the brand-IP.

## 3.2 Segmenting the valuation analysis

The legal rights protecting an intangible asset can vary by jurisdiction. Differences in the pool of IP constituting the subject asset can influence earnings capability and risk, so it is appropriate to carry out the valuation at a level of segmentation that is aligned with differences in the underlying rights.

In addition to legal considerations, the functional and market assessments that support an IP valuation can be better assessed by market segment (for instance, region or product category) than at an aggregate level.

In considering these factors, the appropriate level of segmentation for a particular engagement is also influenced by the purpose and scope of the valuation.

## 3.3 Basis of value

IVS describes alternative bases and premises of value. The value of IP assets can vary considerably under different ownership and commercial circumstances as a result of:

- the economic potential of the IP being influenced by access to assets required for its commercialisation
- the lack of efficient markets for most categories of IP and
- the fact that exclusive rights conferred by IP only generate value if the owner is willing and able to enforce it.

In accordance with VPS 4 of Red Book Global Standards, RICS members must ensure that the basis and premise of value is appropriate for the purpose of the valuation. A valuer should also consider the implications for the valuation methodology and assumptions. (Appendix A comments on the specific importance of the basis and premise of value in valuations carried out for the purpose of IP financing.)

# 4 Assessing the functional and economic characteristics of the subject IP

Valuers should understand the nature and attributes of the subject intangible asset. This is important, as the functional, market and economic characteristics of IP influence its earnings capability, risk profile and value.

Valuers should also assess market factors. This guidance note restricts its commentary on market assessment to establishing the market potential of the subject IP and benchmarking with any comparable IP.

Unique characteristics of brand-, tech-, artistic- and data-IP are outlined in sections 4.1 to 4.4. Generic economic characteristics of IP are:

- IP is generally not diminished by use, so although its useful economic life might be limited, it will not suffer from wear and tear.
- IP can be simultaneously used by multiple parties and is therefore highly scalable.
- The relationship between cost of creation and IP value need not be linear. This
  can result in a high risk of wasted investment, but it may also result in high upside
  potential.
- It is generally more difficult to detect and prevent unauthorised use of IP than physical assets. This gives rise to the risk of freeloading, unless the IP owner is willing and able to enforce its rights.

## 4.1 Brand-IP

The legal rights that protect the name, design and visual identity of a brand are fundamental to its value. However, the legal rights are only partly responsible for generating cash flow. The ability of brand-IP to generate a higher price and/or higher volume than an unbranded product results from the extent to which it influences consumer attitudes and purchasing behaviour towards the underlying product or service.

The value of brand-IP therefore depends on its market strength and reputation, in addition to the owner's ability to prevent other parties from exploiting the reputation of the brand.

## 4.1.1 Market performance

Measures such as market share and historic performance can be indicators of the market strength of brand-IP. However, the market performance of a branded product can be driven by factors other than the strength of the brand-IP, for instance:

- A high market share can result from barriers to entry rather than preference and loyalty towards the brand-IP.
- Growth in market share might result from improved distribution capability rather than improvements in the consumer appeal of brand-IP.

 Low share of a broadly defined market can disguise the strength of brand-IP in a niche market segment.

Measures of price premium and price elasticity can provide insight into the market strength of brand-IP, but these can result from superior product performance as well as from the appeal of the brand-IP.

The valuation of brand-IP requires an assessment of the economic contribution of the brand relative to other value drivers of the branded product. Some sophisticated, datarich brand owners carry out econometric modelling or predictive research to isolate and quantify the impact of brand-IP relative to other factors that influence market performance. However, quantitative analysis of this sort is rarely available to valuers.

## 4.1.2 Brand equity

Market research and marketing professions use the term 'brand equity' to describe the aggregation of consumer attitudes towards a brand or the reputation of the brand. This is distinct from residual business goodwill because it is inextricably linked to the brand-IP. The benefits of brand equity follow the ownership, or right to use, the trademarks, copyright and designs with which it is associated.

In some jurisdictions, the definition of 'goodwill' at law differs from that in financial reporting (see International Accounting Standards (IAS) 38 – Intangible Assets). Terms such as 'brand strength' can be used instead of brand equity. A clear definition of brand-IP reduces the likelihood of confusion between a brand asset and goodwill.

Although brand equity is a generally accepted concept among marketers, it has no standardised definition. Most reputable brand equity models include measures of brand awareness, brand associations concerning quality and image, and the level of consumer affinity towards the brand.

Sophisticated brand owners collect attitudinal measures of this type through quantitative consumer research.

Where available, consumer research can provide an insightful input to the assessment of the market strength of the subject brand-IP. If no such data exists, the valuer should consider whether the purpose and scope of the valuation justifies such research to be commissioned.

## 4.1.3 Brand investment

The extent and duration of advertising expenditure can provide an indication of the market strength of brand-IP, particularly when tracked relative to competing brands. However, valuers should not assume that there is a linear relationship between brand investment and the value of brand-IP.

'Share of voice' is a term that describes a brand's level of advertising expenditure as a percentage of the total advertising expenditure of all competing brands.

## 4.2 Tech-IP

The earnings capability of tech-IP depends on functional and commercial utility. Incremental utility can result from the performance of the end product in which the IP is embedded, or from operating efficiencies resulting from the use of the IP.

The risk profile of tech-IP that is under development includes development risk, which takes account of:

- the risk associated with each development hurdle
- the risk of new competing technology coming into market and
- the cumulative probability of successfully commercialising the technology.

This is discussed further in section 6.3.

Once commercialised, the earnings of tech-IP are subject to risks resulting from economic, market, legal, regulatory and technical factors.

## 4.2.1 Technology investment

The historic cost of developing tech-IP does not necessarily reflect its value, but can be a useful reference point. Research and development (R&D) costs that are accompanied by verified progression through development phases are likely to increase the value of the tech-IP through the progressive reduction in development risk.

## 4.2.2 Patent characteristics

For a patent to be granted, the invention that is the subject of the patent must (among other things) be novel and non-obvious. However, this does not imply that it:

- is capable of use or manufacture
- is marketable or
- can be profitably exploited.

As a result, a patent requires ongoing legal costs, but provides no certainty of earnings.

In a patent document, it is necessary to some extent to disclose:

- how the invention is or will be used
- the product or process to which it relates and
- the relevance of the claims of the patent to the utility of the product or process.

The extent of the increase in utility relative to existing technology influences the value of a patent. For example, within the pharmaceutical industry, the earnings potential of patents varies depending on whether they protect a compound, formulation, diagnostic method, method of treatment or manufacturing process. Other economic differences may arise depending on the indications covered within the scope of the claims, such as cancer, diabetes or colds and flu.

Within the commercial application of a patent, it is important to assess the breadth and relevance of its claims. Some products or processes will be protected by multiple patents. The economic contribution of each patent will be influenced by the relevance of its claims to the incremental commercial utility of the technology.

Where a patent's claims offer a wide scope of protection, this will tend to have commercial advantages, unless the increased breadth compromises the patent's validity and enforceability in light of prior art.

The ease of developing alternative technical solutions that circumvent a patent has a significant impact on its useful life and value. The likelihood of circumvention can be

reduced by broad (and enforceable) patent claims or a portfolio of complementary patents.

Where pre-existing technologies exist, these can provide evidence of the ease of circumvention. Alternatively, patent network mapping, a review of published research, or the opinion of a technical expert can inform the likelihood of circumvention.

Even in situations where a patent appears unlikely to be profitable in use by the owner, it can block other parties from using infringing technology and thereby create earnings through deterrent licensing or litigation.

The useful economic life of a patent might be shorter than its legal life and cannot exceed the remaining term of protection. Patent specifications become publicly available, so once the period of legal protection has expired, the patent claims can be used by other parties and surplus earnings will be eroded. However, the associated technology might maintain differentiation through other IP, such as trade secrets and trademarks.

#### A patent that:

- provides a significant increase in utility
- is difficult to design around
- has a significant useful life and
- is not difficult to enforce

is known as a 'blockbuster patent'.

The definition of the subject asset and basis of value should clarify whether a patent is valued on a standalone basis or under the assumption that it has access to related IP and other assets that are required for it to be commercialised. Strong patents with significant commercial utility are likely to be capable of licence or sale in their own right, but weaker patents sometimes only have value when bundled with complementary assets.

#### 4.2.3 Characteristics of trade secrets

As with other tech-IP, the value of trade secrets depends on their contribution to income generation or cost efficiency.

Unlike patents, trade secrets do not prevent other parties from using similar information if this is independently discovered. Hence, the incremental earnings generated by a trade secret are influenced by the likelihood of third parties reverse-engineering the information or creating similar know-how of their own. The competitive advantage resulting from trade secrets can be rapidly lost through inadvertent disclosure.

Costs associated with maintaining trade secrets are influenced by the methods used to protect them.

## 4.3 Artistic-IP

The method of monetising copyright is influenced by the nature of the underlying work, the market appeal of the work, the ability to distribute and control its use, and the remaining period of protection.

The ease of distributing copyright works through digital technology has increased revenue-generating opportunities and also the risk of unauthorised use. Thus, consideration should be given to the form in which the copyright is expressed.

Consideration should also be given as to whether legal opinion is required to establish whether a subject asset demonstrates the originality and creativity required to qualify for copyright protection in the relevant jurisdiction.

## 4.4 Data-IP

The value of data-IP can flow from incremental revenue or operating efficiencies resulting from enhancements in products, processes and/or marketing. The primary value driver is the utility of the data, in terms of the uplift that it can deliver to demand or efficiency.

Factors that can influence data utility and should be considered include:

- length of the period covered by the data and the frequency of data points
- breadth of the data in terms of both population and types of information
- uniqueness of the data and how difficult it is to replicate
- legal restrictions on the use of the data and
- how recent the data is.

The quality and structure of data influences its readiness for use and its value. Relevant characteristics include whether it has been accurately captured and whether it is well ordered and maintained.

Utility of data-IP can increase significantly when it includes algorithms or other insights gained from the analysis of the underlying data.

The number of potential applications and/or users can also influence the value of data-IP.

Consideration should be given to any legal restrictions in the use of personal data and processed personal data. Such restrictions vary by jurisdiction

The useful economic life of data is influenced by the purpose of its use and can vary considerably. In some instances, only recent data is useful, while in other circumstances, the length of data history is more important.

The ability of the data owner to prevent others from accessing the data and preventing inadvertent disclosure influences the economic life of the data and the risk associated with future earnings.

# 5 Selecting an appropriate valuation approach

Valuers should consider the nature and attributes of the subject IP and the nature and characteristics of the market for that asset in order to determine the most appropriate valuation approach. Paragraph 50.4 of IVS 210 notes that the heterogeneous nature of many intangible assets means that there is often a greater need to consider the use of multiple methods and approaches than for other asset classes. This is particularly true of IP, which by definition is unique. There will be instances where information gaps or other difficulties will compromise the use of all valuation approaches. In these situations, the valuer should use more than one method to support key assumptions and the valuation opinion. See paragraph 10.4 of IVS 105.

In the case of IP, the use of sensitivity analysis to perform cross-checks and reasonableness checks on an asset valuation can be of great benefit to both the valuer and the user of a valuation report.

Integrating IP characteristics into each valuation approach is discussed in chapters 6–8.

## 5.1 The income approach

The income approach values an asset with reference to the earnings it is expected to generate during its economic life and the associated risk. Having assessed the characteristics of the subject IP, the factors considered in determining the appropriateness of the income approach should include:

- whether the subject IP has established earnings that are consistent with the basis of valuation. The absence of existing earnings does not invalidate the income approach, but can increase the difficulty of forecasting earnings
- if the subject IP is still under development, the extent to which reasonable estimates can be made concerning the probability of successfully completing the development, the period of development and commercialisation, and the method of pricing the IP
- the extent to which reasonable estimates can be made regarding future earnings and risk and
- where the subject IP does not or will not generate standalone earnings, whether:
  - sufficient information is available to isolate the earnings generated by the subject IP from other contributory assets and functions and
  - there are sufficiently comparable assets for which arm's length royalty rates or earnings are available.

## 5.2 The market approach

The market or sales comparison approach values IP by considering transactions of comparable assets. Having assessed the characteristics of the subject IP and identified the relevant market(s), the factors considered in determining the appropriateness of the market approach should include:

- the extent of novelty or differentiation of the subject IP and the likelihood of there being other assets that are sufficiently similar to enable comparative analysis.
   Comparability testing should cover legal, functional, market and economic characteristics such as risk and return
- the extent that there are comparable assets and whether there is sufficient relevant and publicly available data concerning arm's length transactions and
- whether historic transactions exist for the subject IP. This can increase the relevance of the market approach, subject to an assessment of the comparability of market conditions, contract terms and circumstances of the historic transaction.

## 5.3 The cost approach

The cost approach values IP with reference to the cost of developing an asset of similar utility. Having assessed the characteristics of the subject IP, the factors considered in determining the appropriateness of the cost approach should include:

- the degree of differentiation of the subject IP and the extent to which the associated rights prevent other parties developing a similar asset. The value of highly differentiated assets with strong and broad IP protection can be significantly higher than the development cost or replacement cost; these circumstances reduce the relevance of the cost approach
- the ability to reasonably estimate the probability of successfully developing IP of similar utility, and the ability to estimate the development time, direct costs and opportunity cost and
- the position of the subject IP within its expected useful economic life, as this will influence the need for an obsolescence provision.

## 6 The income approach

Paragraph 60.1 of IVS 210 states:

'Under the income approach, the *value* of an intangible asset is determined by reference to the present value of income, cash flows or cost savings attributable to the intangible *asset* over its economic life.'

The impact of legal, market, functional and economic characteristics of the subject IP on all prospective financial information or forecasts should be considered.

## 6.1 Economic life

Paragraph 100.1 of IVS 210 states:

'An important consideration in the *valuation* of an intangible *asset*, particularly under the income approach, is the economic life of the *asset*. This may be a finite period limited by legal, technological, functional or economic factors; other *assets* may have an indefinite life. The economic life of an intangible *asset* is a different concept than the remaining useful life for accounting or tax purposes.'

The relative characteristics of IP relating to brands, technology, artistic works and data are identified in sections 6.1.1–6.1.4.

## 6.1.1 Brand-IP

Different periods of legal protection are provided by different rights supporting a brand:

- Registered trademarks can be renewed on an ongoing basis so long as the necessary fees are paid and the mark remains in use.
- Common law trademark protection varies by jurisdiction and generally depends on the extent of use and the distinctiveness of the mark.
- Copyright has a finite period of protection, which can be long.
- The term of a registered design varies by jurisdiction.

The useful economic life of a brand can exceed the life cycle of branded products and there are many examples of successful brands that are more than 100 years old. This should be balanced against high rates of attrition for start-up brands and the decline of some brands that previously achieved a strong market position.

An assessment of the useful economic life of brand-IP should include consideration of:

- the extent of the legal rights that enable the brand owner to protect its brand equity
- the market position and historic performance of the branded products and services
- the brand equity, or other measure of consumer attitudes towards the brand, and trends therein if the brand-IP is closely associated with a single product
- the life cycle of the underlying product category and
- the extent and trend of related advertising and marketing expenditure.

For well-established brand-IP with no sign of impairment and no foreseeable limit to the period over which economic returns can be generated, an indefinite useful life may be appropriate.

#### 6.1.2 Tech-IP

The remaining legal life of a patent indicates the limit of its economic life. An assessment as to whether the economic life of the patent is shorter than the legal life should include consideration of:

- the quality of the patent claims as reflected by the prosecution history and any legal challenges
- the ease of designing around the patent claims
- the market position and performance trends of any products or processes using the invention that is the subject of the patent
- the technology life cycle and barriers to entry within the industry in which the patent is used and
- measures of commercial interest in the patent such as recent licences and the extent of forward citations.

An assessment of the useful life of trade secrets should include factors such as:

- the legal framework within the relevant jurisdiction(s)
- time restrictions to any supporting non-disclosure or non-compete contracts
- the strength of procedures used to maintain confidentiality
- the degree of difficulty for competitors to reverse-engineer the confidential information or create equivalent know-how
- the technology life cycle within the related industry and
- if the trade secrets result in a customer-facing benefit, the extent of the resulting product differentiation, the extent of consumer appeal and the product life cycle.

The economic life of a tech asset consisting of a bundle of complementary patents and trade secrets can extend beyond the legal life of certain constituent patents. However, the extent of protection afforded to the tech-IP, and its earnings potential, may diminish as a result of the expiry of a constituent patent.

### 6.1.3 Artistic-IP

Copyright has a finite period of protection. An assessment of the economic life of artistic-IP should include consideration of:

- the performance trends of the artistic work
- the useful life and sales curve of other works by the author, or of comparable works
- trends within the related sector or genre and
- the ability to control unauthorised use of the copyright.

## 6.1.4 Data-IP

Unlike copyright, there are no legal restrictions to the life of trade secrets. An assessment of the economic life of data-IP should include consideration of:

- the time it would take to collect and organise data with similar utility
- the extent to which the commercial relevance of the data is influenced by how recent it is
- the extent to which commercially useful insights can be gained from trend data and
- the uniqueness and durability of any algorithms within the data.

Inadequate protection of data confidentiality can reduce its expected economic life.

## 6.2 IP earnings and growth

### 6.2.1 Brand-IP

Brand-IP that is valued using the income approach will typically have an existing earnings stream, so a key assumption is the growth rate. Whether expressed as an explicit growth assumption or through a multiple, the assessment should include consideration of:

- economic trends and growth trends of the market segments in which the brand-IP operates
- maturity of the brand-IP and its historic performance relative to the market
- brand equity, or other quantitative measures of consumer attitudes, and the trends therein
- level of historic advertising relative to competitors and budgeted future advertising expenditure and
- anticipated legislative changes concerning the markets in which the brand is used.

Where the brand-IP's earnings are embedded in those of a business unit, methods such as relief from royalty, premium profit, excess earnings and the Greenfield method should be used to estimate the brand's earnings contribution.

When the relief from royalty method is used, the comparability factors should be considered in the analysis. For example, any royalty information obtained should be adjusted to reflect the differences between the comparable royalty arrangement and the subject asset.

Factors to be included in the comparison should include the terms of the licence agreement and differentiating characteristics such as market position, geographical coverage, functionality, whether they are used in connection with business-to-business or business-to-consumer products, etc.

### 6.2.2 Tech-IP

When the income approach is considered appropriate for tech-IP that is still under development, assumptions should be made regarding the expected date of commercialisation and future development costs. The assessment should consider:

- R&D plans and milestones
- technical complexity of the development project

- progress through designated phases of testing and, if applicable, regulatory approval and
- development cycles of similar R&D projects carried out by the IP owner, or of comparable IP or typical industry norms.

The probability of successfully concluding the R&D is considered under section 6.3.

Where the tech-IP's earnings are embedded in those of a business unit, methods such as relief from royalty, premium profit, excess earnings and the Greenfield method should be used to estimate the technology's earnings contribution. When the relief from royalty method is used, the comparability factors mentioned in section 6.2.1 should be considered in the analysis.

Future earnings and growth rates for tech-IP should take account of (if applicable):

- if the IP is already in use, the historic performance of the tech-IP relative to the market and its maturity
- the extent to which the functional performance of the subject IP is superior to alternative technology
- the expected ramp-up period and sales curve following market entry
- peak sales and sales curves of any comparable IP
- economic trends and growth trends of the market segments in which the tech-IP operates
- anticipated legislative changes concerning the relevant markets and
- the technology life cycle within the related industry.

## 6.2.3 Artistic-IP

An assessment of the factors that influence the earnings and growth of artistic-IP should include consideration of:

- sales targets identified in any arm's length contracts regarding the use of rights concerning the subject IP
- the legal and market strength of the artistic-IP
- historic earnings of the subject IP and the stage of its life cycle
- peak sales and sales curves of other works by the author or of comparable works
- trends within the related market and genre and
- the ability to control unauthorised use of the copyright.

#### 6.2.4 Data-IP

Where data-IP directly generates revenue, for instance through subscriptions, this represents the current IP revenue. The calculation of IP earnings should then consider the associated costs and, where applicable, charges for contributory assets.

In situations where IP assets contribute to earnings through product or service enhancements or cost efficiencies, the utility of the data and the resulting uplift in revenue and/or efficiencies should be considered. Assumptions regarding data utility and earnings growth are informed by a review of the items identified in section 4.4.

## 6.3 Risk assessment

The weighted average cost of capital (WACC) may not be appropriate if the subject intangible asset has a distinct risk profile from the rest of the assets and liabilities utilised in the business or if there is other evidence that indicates an alternative discount rate.

The risk profile of a standalone pool of complementary IP is unlikely to be the same as the systematic risk of a company that operates in the same industry as the subject IP.

Special consideration is required for IP that is still in development. Where there is a significant probability of failure, the valuer should consider using risk-weighted scenarios or the real options methods of valuation.

If the discount rate is used to reflect development risk, the probability of success should still be estimated and explicitly factored into the discount rate.

## 6.3.1 Brand-IP

For brand-IP, an assessment of the asset-specific risk should take into account:

- strength and overlap of legal rights supporting the brand
- security of historic brand-IP earnings and the trends therein
- current brand equity and trends therein and
- market position and trends therein.

Arm's length brand licences or securitisation agreements can provide evidence of commercial recognition of the brand-IP's market strength and risk profile.

### 6.3.2 Tech-IP

For tech-IP, an assessment of the asset-specific risk should take into account:

- strength and overlap of legal rights supporting the technology, including the IP validity risk and IP infringement risk
- enforcement risk; even once granted, the validity and scope of a patent can be challenged, thus an enforcement risk remains after grant
- phase of development of the technology underpinning the tech-IP
- inadvertent disclosure risk of trade secrets
- security of historic tech-IP earnings and the trends therein and
- commercial utility of the technology underpinning the tech-IP, including designaround risk and technical obsolescence risk.

Arm's length technology licences or securitisation agreements can provide evidence of commercial recognition of the tech-IP's market strength and risk profile.

#### 6.3.3 Artistic-IP

For artistic-IP, an assessment of the asset-specific risk should take into account:

- strength of the legal rights supporting the artistic work, including the ability to control unauthorised use and
- market strength of the artistic work, including the risk of obsolescence.

Advances on publishing contracts and arm's length copyright licences can provide evidence of commercial recognition of the artistic-IP's market strength and risk profile.

## 6.3.4 Data-IP

For data-IP, an assessment of the asset-specific risk should take into account:

- uncertainty regarding the utility and earnings potential of the data-IP
- uncertainty regarding the ability to protect the data and
- uncertainty regarding the regulatory environment.

## 7 The market approach

Paragraph 50.4 of IVS 210 states:

'The heterogeneous nature of intangible assets and the fact that intangible assets seldom transact separately from other assets means that it is rarely possible to find market evidence of transactions involving identical assets. If there is market evidence at all, it is usually in respect of assets that are similar, but not identical.'

Thus, it may be necessary to make '... adjustments ... to reflect differences between the subject asset and those involved in the transactions' (paragraph 50.5 of IVS 210).

For artistic-, brand- and tech-IP, the following characteristics should be considered as they influence the extent of comparability:

- type of underlying IP
- breadth and extent of available legal rights
- remaining term of protection
- industry and subsector
- characteristics of the markets in which the subject IP and comparable IP operate
- market position and trends in market performance
- proximity in time between the valuation data and comparable transaction and
- for royalty rates, terms of the licence agreement including up-front payments, duration and exclusivity.

## 7.1 Brand-IP

Further comparability criteria that should be considered for brand-IP include:

- price positioning
- brand equity and stage of development
- market position and
- level of advertising support.

## 7.2 Tech-IP

Further comparability criteria that should be considered for tech-IP include:

- the specific purpose of the technology and its importance to product/process performance
- stage of development, including proof of concept and proof of economic viability
- whether the patent has been granted or whether it is still at application stage and the quality of patent claims
- proof of freedom to operate and
- ease of infringement detection and enforcement.

## 7.3 Artistic-IP

Further comparability criteria that should be considered for artistic-IP include:

- reputation of the author of the artistic work
- type and genre of artistic work and
- ability to control unauthorised use of the artistic work.

## 7.4 Data-IP

Further comparability criteria that should be considered for data-IP include:

- difficulty in collection of data of equivalent utility
- depth and breadth of data
- uniqueness and difficulty of replication
- quality and usability
- legal restrictions to data use and
- number of potential applications and users of the data.

## 8 The cost approach

Paragraph 70.1 of IVS 210 states:

'Under the cost approach, the *value* of an intangible *asset* is determined based on the replacement cost of a similar *asset* or an *asset* providing similar service potential or utility.'

In addition, the cost approach may be used when the subject intangible asset or IP does not have an identifiable income stream or when no other approach can be applied.

In situations where the cost approach is considered appropriate, the factors that should be considered include:

- the stage of development of the subject IP and, if not yet commercialised, the remaining development stages and timeline
- the complexity and novelty of the subject IP and the degree of difficulty in creating an asset of similar utility
- the extent of obsolescence in the subject IP
- the relevance of the historic development process to the reproduction of the IP or production of a replacement asset and
- the estimated time required to develop an alternative asset, the opportunity cost and the probability of success.

# Appendix A: Valuations supporting IP debt financing

This appendix identifies characteristics of IP that are of specific relevance to valuations supporting IP financing.

When scoping an IP valuation that has been commissioned by a debt provider, the valuer should ascertain the nature of the loan, which can range between:

- asset-backed financing where the IP is used as collateral and
- business loans where the IP is not used as collateral, but the lender wishes to assess
  the extent to which the IP can be expected to support a company's competitive
  advantage and ability to service the debt.

The nature of the loan can influence appropriate bases and premises of value. For instance, where the IP is used as collateral, the debt provider may wish the valuer to consider the premise of liquidation value.

Economic characteristics of IP that are particularly relevant to IP financing are described below, along with relevant valuation considerations.

Tech, brand, artistic and data assets can consist of a variety of IP, which can vary by jurisdiction. Furthermore, the interest of debt providers might be restricted to a specific jurisdiction. This has important implications for the scope of an IP valuation and the definition of the subject asset. The valuer should:

- clarify the geographic scope and segmentation of the engagement prior to commencement and disclose this in the valuation report
- in describing the subject asset, identify the specific rights within each relevant jurisdiction and
- disclose within the valuation report:
  - whether legal opinion has been provided regarding factors including ownership, status (to ensure that registered IP has not expired), freedom to operate and encumbrances and
  - whether technical and market factors have been assessed by an appropriate expert, or if they are covered by special instructions.

The value of IP can be highly sensitive to bases and premises of value, including assumptions made, because their commercial utility can rely on access to other assets and due to the fact that IP markets are neither efficient nor liquid.

IVS 104 identifies alternative bases of value (for example market value and equitable value) together with premises of value, which relate to the assumed use of the subject asset (such as highest and best use, current use, orderly liquidation and forced sale). When establishing the scope of work (see IVS 101) the appropriate premise(s) of value consistent with the basis and purpose (see IVS 104) must be agreed, along with whether alternative valuation estimates are required for differing premises or assumptions. For instance, if the purpose of a valuation is to inform an asset-backed financing decision,

it may be appropriate to use the premise of current use and also the premise of orderly liquidation.

By way of illustration, the value of a patent portfolio protecting an early stage product may vary as follows:

- low value in current use due to high risk during the development and commercialisation stages
- higher value under the premise of highest and best use, due to access to complementary assets and adequate funding and
- no value if marketed on a standalone basis in an orderly liquidation, due to an extremely low probability of sale.

The risk profile of IP assets varies considerably depending on their utility relative to competing assets, their stage of development and the strength of the associated legal rights. Chapters 3 and 4 identify factors that should be used to assess the functional, economic and legal characteristics of IP assets.

These factors are relevant whatever the purpose of the valuation and whatever methodology is applied. However, under the premises of orderly liquidation and forced sale, the commercial and legal strength of the IP may have magnified importance due to the fact that IP markets tend not to be efficient nor liquid.

Factors that contribute to the standalone value of IP include:

- whether or not it has an established commercial utility and
- the existence of licensees and other stakeholders.

Chapter 5 identifies characteristics of the subject IP that influence the choice of valuation approaches and methods. The most appropriate method of valuation may vary for alternative premises of value. For instance, the income approach might be appropriate to estimate value in use for IP of moderate strength that is expected to generate cash flow when used in combination with complementary assets. However, if the subject IP is not capable of being licensed on a standalone basis, an alternative valuation approach is likely to be more appropriate.

For tech-IP and data-IP that is in the early stage of commercialisation, there can be a range of potential earnings and risk scenarios. Within the selected valuation methods, valuers should use their judgement, sometimes supported by sensitivity analysis, to express their opinion on an appropriate value range. When conducting an IP valuation for debt funding, it is important for the valuer to ensure that the 'most likely' value range does not obscure potential outcomes that might result in the subject IP being unable to service the debt.

## Appendix B: Determining IP royalty rates

This appendix identifies characteristics of IP that are relevant to the determination of notional royalty rates. It is beyond the scope of this document to provide in-depth guidance to royalty analysis. The appendix has been included due to the common use of the relief from royalty method of valuation, but the principles are also relevant to the determination of royalty rates as a basis for licensing negotiations or transfer pricing.

Royalties are a profit-sharing mechanism between IP owners and licensees. Parties to an arm's length licence are free to select any basis of royalty calculation that they believe results in an equitable split of IP earnings, including:

- a single up-front payment or set of payments at designated milestones
- a predetermined amount that is paid periodically
- a percentage of revenue earned by the product or service to which the IP relates
- a percentage of profit
- a charge based on units of manufacture or sales and
- a combination of the above.

Arm's length royalties result from negotiations between the licensee and licensor, and are informed by a range of commercial factors, including:

- the commercial utility of the licensed IP relative to alternatives
- the strength of legal protection of important features of the IP
- the characteristics of the market in which the IP asset is used
- the extent of the IP's reliance on complementary assets owned by the licensee and
- other terms of the licence that determine how the risks and rewards are shared between licensor and licensee.

The same factors are relevant to the determination of notional royalty rates for the purpose of IP valuations and transfer pricing. It is beyond the scope of this appendix to describe and assess alternative methodologies to estimate royalties, but three broad approaches are:

- estimating a royalty through benchmarking relative to arm's length royalties for similar IP. This is sometimes referred to as the comparative uncontrolled pricing method
- earnings-based methods, which use financial analysis to estimate the incremental revenue, or cost savings, generated by the subject IP and
- 3 cost-based methods, which make reference to an appropriate return on the cost of the subject IP. These methods are generally not appropriate for highly differentiated IP with strong legal protection, but can be used for IP assets that are replicable.

All approaches to royalty determination should include:

 a clear definition of the subject IP within the relevant jurisdiction(s), as described in chapter 2 of this guidance note and  an assessment of the strength of the subject IP asset in terms of its functional, legal and economic characteristics, as described in chapters 2 and 4 of this guidance note.

When estimating an IP royalty based on benchmarking relative to arm's length royalty rates, careful consideration should be given to:

- similarities and differences between the subject IP and the benchmarked transactions in terms of legal characteristics. For instance, within the same area of technology, there is little comparability between tech-IP consisting of a portfolio of granted patents with broad claim scope and a technology that is reliant on a single patent application
- similarities and differences between the subject IP and the benchmarked transactions in terms of functional and economic characteristics. Due to the intrinsic nature of IP assets, the earnings differential between average and exceptional assets is pronounced, hence a benchmarking exercise that does not properly reflect functional differences can be misleading
- the comparability of the royalty base, i.e. for the same product, the royalty rate will vary depending on whether it is calculated as a percentage of wholesale revenue or retail revenue
- differences in market conditions and economic circumstances between different markets and transaction dates
- the economic circumstances of the parties, or other business dealings, that might influence the licensing terms and
- the terms of the licence, i.e. the royalty might differ substantially depending on how other commercial risks and rewards are apportioned between the licensor and licensee.

When conducting statistical analysis of royalty databases, the analysis should take due account of the following:

- Royalty databases exclude IP assets that lack the earnings capability to be licensed.
  This can be a significant portion of the IP population within an industry, so the
  median royalty rate within the database is likely to be materially higher than the
  median royalty for the IP population as a whole.
- It can be erroneous to infer a linear relationship between IP strength and royalty potential. For instance, within a particular industry, the strongest IP typically commands a significantly higher royalty than the upper-quartile.

For patents that are deemed to be essential to practise a technical standard, valuers should be aware of fair, reasonable and non-discriminatory (FRAND) licensing and royalty terms.

The most appropriate method of royalty determination is influenced by the characteristics of the IP and the availability of information.

Due to the complexities of IP assets, it is sometimes appropriate to use a corroborating as well as a primary method of royalty determination, or to integrate the findings of several analyses in order to support a royalty assumption.

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