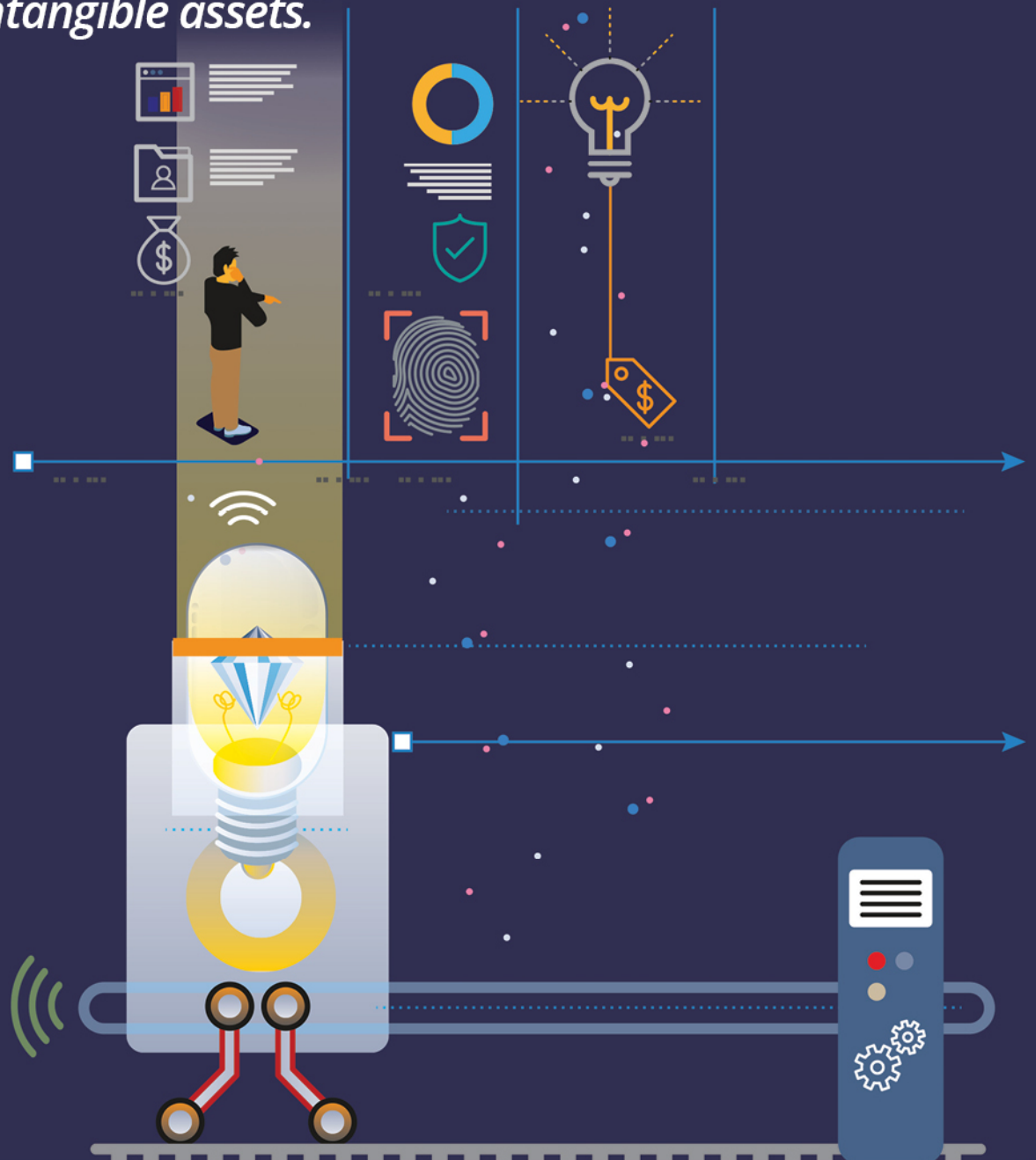
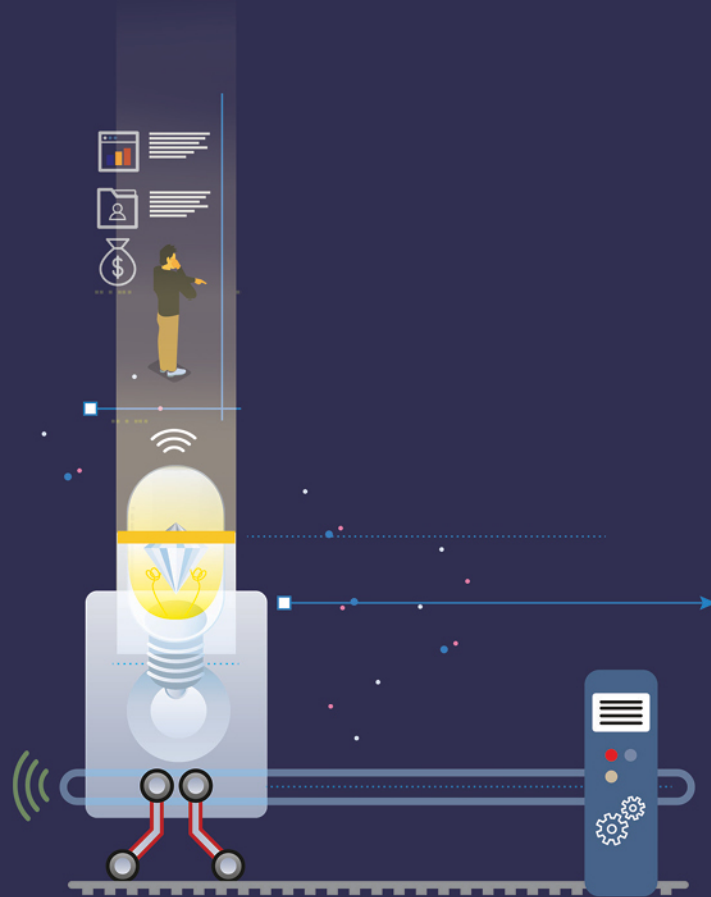


Uncovering Your Hidden Value

How to quantify the worth of your IP and intangible assets.





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Introduction

Have you ever wondered what your intellectual property (IP) is worth? Or wished that you could express the value that is 'hidden away' in your intangible assets, which isn't reflected on your balance sheet but represents a vital investment for the future? If so, this guide is for you.

The main purpose of this guide is to help you determine whether, and when, conducting an IP valuation might be commercially beneficial for your business. It's divided into five main chapters (plus some worked examples and further references) that are intended to address the most important questions you may have about the process and the advantages. You don't need to be an accountant or lawyer to use it.

Chapter 1 addresses the question: if IP is so important, why isn't its value obvious from my company's accounts? The guide takes you through a few accounting basics to explain when IP and intangibles feature, and when they do not. It then explains why this position might be disadvantaging your business, and how an IP valuation report may help.

Chapter 2 introduces you to the main principles that guide the IP valuation process and provides an overview of the regulations and standards that govern it.

Chapter 3 then goes into more detail about the contexts in which having an IP valuation could be most useful. It starts by setting out cases where getting a valuation prepared is more or less mandatory and then moves onto several other business purposes that can be facilitated by a suitable report.

Chapter 4 then runs through each of the three main methods that are employed, summarising the advantages and disadvantages of each one, and how the appropriate method is selected.

Finally, Chapter 5 discusses the factors that are most likely to influence an IP valuation calculation and tells you what you will need to provide to get a report produced.



Produced by **IPOS International**, these intellectual property management (IPM) business guides aim to deliver a suite of IP solutions for enterprises based on industry best practices. As the expertise and enterprise engagement arm of the Intellectual Property Office of Singapore (IPOS), IPOS International helps enterprises and industries use IP and intangible assets for business growth. Some of these engagements may be eligible for Enterprise Singapore (ESG) funding, such as the intangible asset audit and strategy development aligned with business goals. IPOS International's business portal www.iposinternational.com also contains case studies and videos of enterprises leveraging IP to gain a competitive edge in their innovations. Should you have questions on IPM matters or wish to speak with our Intellectual Property Strategists, do email us at enquiry@iposinternational.com or call **+65 63308660**.



Why can't I see the value of my IP in my company accounts?

01

1. Why can't I see the value of my IP in my company accounts? //

How do general accounting principles treat IP?

things like property or equipment are generally shown.

The format of company accounts is governed by a series of national and international standards. These determine the accounting treatment a business is allowed to give to non-physical ('intangible') assets like intellectual property (IP). It is different from how purchases of physical ('tangible'

Many types of **tangible** assets are regularly traded. Independent evidence is available to establish the price they might fetch if they had to be sold, making resale values predictable. This gives companies opportunities to strengthen their balance sheets by showing the likely market value of the assets they own. If the value changes, their accounts can be updated to reflect it.

Also, most of the tangible assets a company owns (like commercial property, plant and equipment and vehicle fleets) will have been bought from someone externally. There is a documented transaction, with an associated price, to provide a starting point to 'write down' or spread this cost of purchase over time. Accountants generally call this **amortisation** when it simply distributes the cost over several periods or **depreciation** where it reflects diminishing value (as an asset wears out or gets used up).

Intangibles like IP are different. They usually get bought and sold together with the businesses that create and own them, and it is only comparatively recently that they have started to be identified in their own right rather than bundled up as 'goodwill'. The problem with this phrase is that 'goodwill' does not reflect the presence of real assets, and is often viewed sceptically by important people (like financiers).

In cases where IP is traded separately, deals are often done by specialist brokers and agents. The data on the price paid is seldom made public, making it difficult to draw comparisons between the value of your IP and 'real deals' in the market.

Also, most intangibles aren't bought from third parties; instead, they are generated internally. As well as making assets like these harder to sell (because they are often very closely connected with a firm's business model), there is no independent transaction to confirm their value or price.

If Company A buys in a design from Company B, it has a clear record of its cost. If Company B creates the same design but decides to use this internally rather than sell it to Company A, it doesn't have a single figure it can use; it has to work out the cost from internal records.



The combination of a lack of transparent markets and IP's internally generated nature causes problems for accountants who are trying to recognise investments in IP. Valuation reports provide a helpful—and sometimes an essential—way of filling the information gap.

When can IP value be recognised in my accounts?

There are two main ways to show IP value in business accounts. If you buy IP—either on its own or as part of a company acquisition—you can spread the cost of any identifiable intangible assets over their useful life (which, in the case of brands, might be indefinite). Alternatively, you can spread the cost of some types of IP investment, provided this meets a set of tests.

A 'standalone' IP purchase can be treated similarly to other asset purchases. The price you have paid (perhaps for a family of patents or a set of creative works) can be shown as an intangible asset on your balance sheet. The transaction provides evidence of a cost and sets a value that can then be amortised or 'written down' over time.

This has the benefit that the cost of your purchase can be distributed over the asset's useful life (subject to the relevant rules), so it doesn't impact your profitability all at once. The 'flip' side, however, is that with very few exceptions, there is no accounting provision for revaluing the asset – so even if the creative works referred to above start selling like hot cakes, their balance sheet value always appears to be going down.

There is one set of circumstances when the 'full' value of your intangible assets like IP will be recognised. If you are acquired by a big company, they will have to determine how much they have paid for any of your intangibles (which by definition includes any IP rights). Things you were never able to show on your balance sheet will now appear on theirs because by buying them, these assets are confirmed to have value. So, if you are contemplating selling your business, finding out what that 'hidden' intangible value might be may assist your negotiations.



Many countries, including Singapore, also allow you to spread the cost of expenditure that can be classed as development. If for example you have invested considerable staff time and effort in developing new software to run your business, or prototyping a finished product, you can capitalise these costs. Only certain assets may qualify, and the process has the same advantages and disadvantages as those explained above.

1. Why can't I see the value of my IP in my company accounts?

What IP can't be recognised in my accounts?

Any IP that has been created internally within a business can only be put on your balance sheet at the amount it cost. Also, unless your asset creation activity is directly associated with a current income stream, or underpins future revenues that your business can forecast with confidence, it normally has to be expensed as and when costs are incurred.

The chief difficulty this raises relates to research activity. Where risk and uncertainty are involved, expenditure cannot be capitalised (meaning you cannot put it on your balance sheet—either at cost or on any other basis). To recognise this cost as an asset, you need to demonstrate you can measure it reliably, and more importantly, show it is probable that the expected future benefits attributable to the asset will flow to your company.

Arguably, this position is quite reasonable, because it will often be unclear at such an early stage whether any assets of value have actually been created from pure research. However, it does mean that the more research a company does, the less profitable it will appear to be because all such expenses have to be put through the profit and loss account in the period in which they are incurred.






Even where write-down of cost is possible, it is important to note that the value of the assets themselves is not in fact what is being recognised. If you patent an invention, which may involve significant expense, you may be able to distribute your filing costs over time and not bear the full expense at the point it is incurred, but this does not reflect the value of the IP rights protection you have created.

In Singapore, the key provisions concerning permissible accounting treatments are contained within Statutory Board Financial Reporting Standard 38. It is important to take independent professional advice if you are considering trying to reflect IP value in your accounts in any way.



Recognition of intangible assets on the balance sheet

Can be featured under accounting standards	Cannot be featured under accounting standards
✓ Identifiable intangible assets that have been acquired in the course of a 'business combination' (a merger or acquisition)	✗ Research-related expenditure

Can be featured under accounting standards	Cannot be featured under accounting standards
 Goodwill associated with a 'business combination' (which is a figure allocated to unidentifiable assets: essentially, the price premium paid to buy the company over and above value that can be justified based on assessment of its identifiable assets)	 Estimated contribution of the intangible assets to overall business value (however derived)
 Costs associated with developing intangible assets of definite commercial feasibility and use	 Estimated resale value (with a very small number of specific exceptions, where intangible assets are routinely traded)
 Price actually paid for an asset the business has bought at arm's length	

What problems does this lack of recognition cause?

Most businesses that innovate are disadvantaged by the difficulties that are inherent in recognising the investment they make in IP and other intangibles. Their profitability appears lower, and because they are not spending as much on tangible assets, they have less traditional collateral to offer as security for finance.

If you do capitalise permissible investment in IP, you are likely to end up with a figure on your balance sheet that can only go downwards, even if your IP rights are making a business contribution that is clearly increasing in value. With a couple of minor exceptions (for highly specialist intangibles like mining rights or aircraft landing slots, for which the market is more open), there is no mechanism to enable you to change this position, other than to test any goodwill figure for impairment (and goodwill only applies if you have bought another business).

For this reason, some companies prefer to 'take the hit' to their expenditure line as they incur the costs of innovating because the profit in future years is not impacted. If you are thinking of selling your business and you expect the price to be determined by earnings multiples, this may be a consideration. However, in the short term, reducing your profits by expensing everything you can may impact your perceived ability to service debt.

The advantage of capitalisation is that you can align the cost of your innovative activity with a period that more closely reflects the expected benefits. The downside is that your balance sheet will show an unrepresentative value which will impact future profitability (because it then keeps appearing as an expense line on the profit and loss account each year).

1. Why can't I see the value of my IP in my company accounts?

This might be characterised as a 'Catch 22' situation. Fail to invest in IP and intangibles, and your business value will diminish. Spend money on them, and your profit goes down, which affects your ability to borrow and sell. Decide to invest instead on tangibles like commercial property, and your bank will think you can offer great security, but it will do nothing for your future competitiveness!



Even if you do find a satisfactory way to place a value for your intangibles on your balance sheet, and it works for your business, do not be surprised if lenders discount it when assessing your creditworthiness.

This is because unlike entries for tangible assets, which nearly always reflect your ownership of property that a bank can see, touch and (if necessary) sell, intangible entries do not necessarily indicate the presence of assets from which value can be realised. Due to this uncertainty and its associated risks, lenders often discount the value of these intangible assets.

*An accompanying guide in this series—**Unlocking IP's Financing Potential**, sets out in more detail how lenders view IP assets, and what steps can be taken to harness their value in a variety of different funding mechanisms.*




How far can an IP valuation report solve these problems?

Most IP valuation reports are not designed to provide you with a value you can add to your balance sheet. Instead, an IP valuation can help you to establish and demonstrate the value that is not shown in your accounts. It can be used to complete a range of different types of transactions, and provide you with important insights into your 'hidden value'.

For the reasons set out in this chapter, whatever type of IP valuation report you produce, it will not normally provide a figure you can expect your accountant to recognise in your formal company accounts (because it represents a professional opinion, rather than a transaction that has happened and that could be replicated on an open market).

The exception relates to Purchase Price Allocation reports, which happen after a business acquisition. These are specifically designed to tell you how much of the price you have paid is attributable to identifiable intangibles and should be shown in your accounts (usually on an amortising basis). They also set out separately how much of a price paid for a business is 'goodwill' (a premium that cannot be associated with assets that are identifiable and separable).

Without proper explanation in accompanying notes, allocating a large balance sheet figure to intangible assets may be interpreted by lenders and investors as showing that you are trying too hard to shore up your balance sheet with assets of uncertain identity and value. They may conclude that you are just very good at spending money! Anything shown as 'goodwill' is especially vulnerable in this regard. This is where an IP valuation report can help because it demonstrates and explains the value that your accounts leave out.

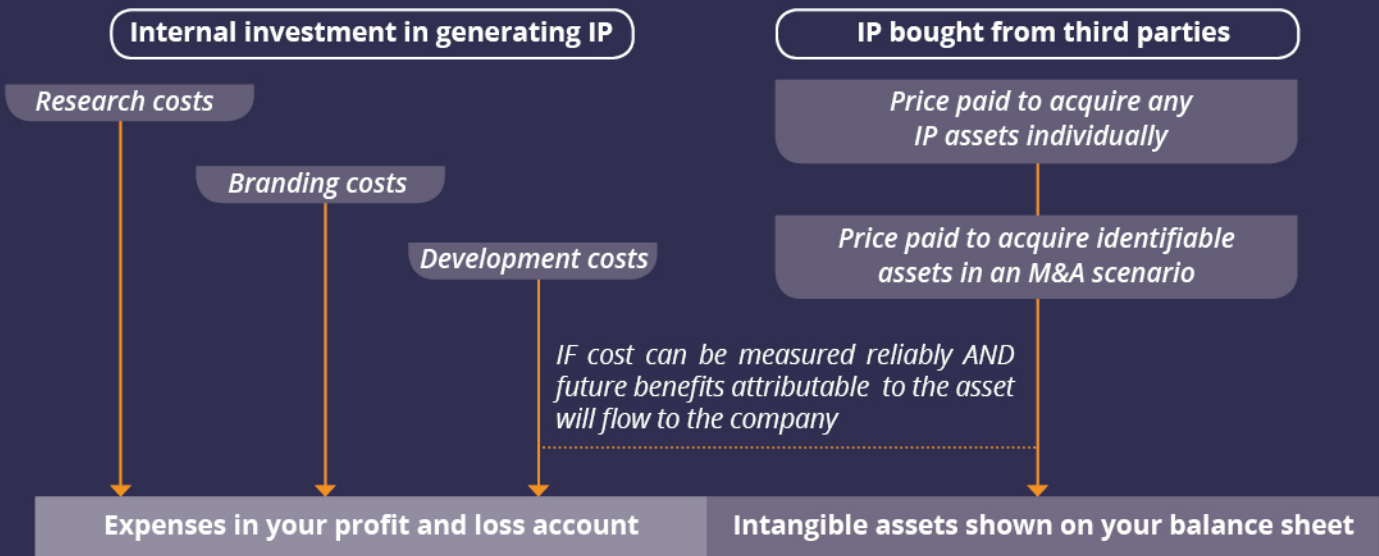
 IP valuation reports come in a variety of shapes and sizes. The following sections explain the different ways of calculating value, which depend on context or purpose, and the amount of internal and external information available.

Valuation reports can be produced in-house, but are normally more highly regarded when produced by an independent IP valuation specialist or an accounting firm using a recognised approach or methodology. Importantly, any valuation report should make the basis for calculation clear, so that it can be followed by someone who is not an expert in accounting.

While a third party will seldom be able to rely on a valuation's findings, for contractual reasons (reports are written for the benefit of the company that commissions them, who may regard the detailed content as confidential), it will help you explain how your investment in IP translates into short and long-term business benefits.

Where is the value of my IP hiding?

This diagram shows how common forms of investment in intangible assets generally end up being represented in your accounts.





What rules apply to IP valuation?



02

What are the main principles used in IP valuation?

The methods used to value IP have elements in common with business valuation. However, while a business valuation seeks to take all a company's assets into account, an IP valuation is only concerned with identifying, isolating and representing the value in its intangibles.

When valuing a business, such as for investment or acquisition purposes, the focus will usually be on the revenues and profits that it generates, and how these are expected to develop into the future. Often, multiples of profit (and sometimes of turnover/sales) will be used, based on research into financial markets. If a company is yet to generate any profits or is pre-trading, there may be a greater emphasis on investment received and made, and on comparisons with other businesses that have reached a similar stage of development.

Most tangible assets (such as domestic and commercial property, vehicles, plant and equipment) are valued using price comparisons based on market data. Since these are not readily available for intangible assets, there is usually a greater emphasis on quantifying the contribution that an identified set of assets is making to a business's performance. As with business valuation, the earlier stage a company is at, the greater the reliance on historical investment and market comparators is likely to be.

The main challenge with IP valuation is to isolate intangibles and their contribution (or cost) from the other things that a business uses. To do this, it also needs to consider what a company actually owns. An important example is its 'human capital'. There is a distinction between a workforce and their skills, which a company does not own (rather, it can influence and control), and the know-how embedded in processes that the workforce follows and innovations they use every day. The latter are assets a company is capable of owning and transferring.



Occasionally, there is a need to isolate value in one particular IP right, or group of rights. However, intangibles like IP almost invariably add value to each other in combination, and their relative contributions can be hard to separate. For this reason, they are usually examined on a whole business level, or grouped into 'baskets' of related assets and assessed together.




Most IP valuation reports are prepared using one or more of three methods: i) the amount it would cost to reproduce or replace the IP; ii) the amount paid for similar IP under similar circumstances; and iii) the contribution the IP makes to company turnover, cash flows and/or profits.

As discussed in the following chapter, some methods are best suited to particular contexts. Chapter 5 goes into detail regarding how each of these methods works.

2. What rules apply to IP valuation?



The three most common methods of IP valuation

	Cost	How much would it cost to re-create all the IP from scratch (called the reproduction cost method) or replace it with something of equal utility (called the replacement cost method)?
	Market	Have IP-related transactions taken place in similar sectors, with enough features in common to make a comparison relevant, subject to appropriate adjustments? Or is there enough IP detail in broader commercial deals to extract a point of reference?
	Income	What contribution do these assets make to past, present or future sales and/or profits?

Which regulations are most relevant for IP valuation?

Several sets of regulations may be applicable to the value a company can place on its IP under different circumstances. They come from three main sources: international rules, accounting regulations and quality standards. Each of these is briefly summarised below.

The rules governing the prices at which assets can be transferred between different parts of the same corporate entities have been strengthened in recent years. This is to address the practices by some large multinationals which were held by governments to verge on tax avoidance. OECD has published an Action Plan on Base Erosion and Profit Shifting (commonly known as 'BEPS').

The two key sets of international accounting rules, with which national accounting regulations such as Singapore's are broadly aligned, are IAS 38 and IFRS 3. These both establish the principle that an asset has to be separable and identifiable in order to be recognised by a business.

The only formally registered international valuation standard is ISO 10668, first introduced in 2010, which concerns requirements for monetary brand valuation. Like International Valuation Standards Council's (IVSC) guidance (see below), it specifies that the income, market or cost approach should be used, either individually or in combination with each other, with the choice dependent on purpose, value concept and brand characteristics.

Otherwise, standards have mainly been derived nationally. MyIPO in Malaysia has published an approved IP valuation model when it introduced its IP financing scheme, while in Europe, there is a Monetary Patent Valuation Standard in Germany (DIN77100), and two standards set by the Austrian Standards Institute, ONORM A6800 & A6801.

Key international regulations and their scope

International regulation or standard	What it covers
IAS 38	Sets out approved accounting treatments for intangible assets
IFRS 3	Sets out how 'business combinations', otherwise called mergers and acquisitions, should be accounted for, including guidance and examples illustrating how intangible assets may be identified
Base Erosion & Profit Shifting (OECD)	Recommends 15 actions to ensure that tax is paid in the jurisdiction where economic activity occurs. Action 8 is the key point of reference for valuation purposes

What industry and informal standards exist?

Industry norms and valuation guidance come in several forms. Some provide ways of addressing the deficiencies of standard financial reporting, while others relate to the actual practice of IP valuation.

The two best-known routes used by companies wishing to explain their intangible asset investments to markets and stakeholders are to make use of Intellectual Capital Statements or to adopt Integrated Reporting. Each of these provides a structure for additional reporting that may help companies articulate (among other things) what intangible resources have been created and how these add value to their business. Both frameworks are flexible; neither sets out whether any firm financial value should be attributed to intangible assets, or specifies how it should be done.

The most important international source of guidance for the valuation industry as a whole is the International Valuation Standards Council (IVSC), which is primarily concerned with best practice. IVSC publishes a Framework and Requirements document, covering generally accepted valuation concepts, principles and definitions, and separately offers supporting guidance in a series of Standards covering applications and technical information to cover most forms of valuation in business.

2. What rules apply to IP valuation?



This covers all business assets but does specifically include intangible assets (which are covered by a specific guide, IVS 210). Cost, market and income are the three main methods described in this guide, with commentary on specific variants that may be deployed.

While the IP valuation industry is not regulated, the growing contribution intangibles make to business value has led to an increasing number of government agencies to require practitioners to do more to raise standards. As one example, three organisations (ASA, AICPA and RICS) have responded to concerns from the US Securities and Exchange Commission (SEC) and introduced a new credential, known as Certified in Entity and Intangible Valuation (CEIV). In Singapore, there is now a Certified Valuer and Appraiser (CVA) qualification: this is applicable to many of those practising IP valuation, though it is not mandatory.

Separately, the litigation industry places some reliance on a series of factors (15 in total) to consider when valuing IP for damages, which are known as Georgia Pacific Factors . There is also a range of circumstances under which some consideration of IP value may be relevant in insolvency proceedings; however, reliable data to support the usual cost and income valuation process is not usually available, so market methods are more relevant (the primary consideration is to identify possible buyers and negotiate from there).



When might I benefit most from a valuation?



03

3. When might I benefit most from a valuation?

Most common reasons for IP valuation

In some contexts, an IP valuation is essential, either because rules and regulations require it, or because a transaction cannot practically be completed without a view of asset value. In others, a valuation report acts mainly as an aid to negotiation or business management /intelligence.

Motivation	Explanation	Essential?	Advisable?
Company acquisition or merger	You will need to determine how to recognise the value of the assets you have purchased on your balance sheet	✓	
Transfer of intangibles between companies or territories	You will need to place a transfer value on them because there are typically tax implications to transactions such as these (they fall under the general description of 'transfer pricing')	✓	
Tax treatment of an intangibles purchase	If a 'related party' transaction is over \$500k or an 'unrelated party' is over \$2m, an independent valuation is required to claim writing-down allowances	✓	
Litigation proceedings	You will need to present evidence to demonstrate damages and lost profits. Also, the costs of taking action may exceed the possible benefits, so it is important to understand the potential upside first	✓	
IP sale or auction	You will need to investigate asset value to avoid over- or under-pricing them		✓
A new JV, collaboration or partnership	You will want to make sure your contribution is properly acknowledged		✓
Licensing software or technology	If you are intending to license your technology, software, brand or other IP assets to another company, you will want to determine the price you should charge		✓
Raising finance	It may be in your interests to illustrate the value your intangibles represent when pitching to investors. Banks and other lenders also have a growing interest in understanding the contribution these assets make		✓

Motivation	Explanation	Essential?	Advisable?
Business restructuring or recovery	Intangibles may come under scrutiny in any business restructuring or recovery scenario (because they are vital to continued trading, or could have value independently of the business)		✓
Insolvency proceedings	If there are IP assets of value within a business that is in administration or liquidation, a valuation may be required to determine the price at which they should be sold		✓
Establishment of a new business	IP valuation will be relevant if you are looking to establish a new business that will benefit from IP you have created		✓



In this chapter, we look at each of the most popular motivators for undertaking IP valuation and explain more about the context and the likely implications for methodology and the type of information you may need to provide. A checklist at the end provides you with a summary of these purposes so that you can identify the aspects most likely to be relevant and interesting for your business.

How does IP value feature in mergers and acquisitions?

Treatment of intangible assets that change hands in the context of a company sale vary by country, and also by the size of the organisation involved. The rules will be determined by the status of the buyer. Below, we set out the most likely outcomes.

Historically, it has been possible to treat any asset not on the acquired company's balance sheet as 'goodwill'. This did not have to be written down over time but could be placed on the buyer's balance sheet for an agreed period and reviewed annually for 'impairment' (changes that may have affected its value). However, large companies such as multinationals now have to split out any intangible assets that are identifiable (meaning that they are separable or subject to contractual rights), controlled by the business, and deliver future economic benefits. Many jurisdictions, including Singapore, are now moving to a regime where smaller companies that buy other businesses are expected to apply the same treatment.

3. When might I benefit most from a valuation?



Where this applies, the valuation treatment is called **purchase price allocation**. Ultimately the value attributed to these identifiable intangibles, which by definition include any IP rights, will be a proportion of the amount that has been paid. How big a proportion, however, has to be determined by analysing the assets and the contribution they make towards future economic benefits. Sometimes, companies will analyse intangibles value in advance of a deal—partly to understand the tax and accounting implications.



Since the emphasis is on expected profit contribution, this process commonly relies principally on income-based valuation techniques. The exercise will also set the period over which the price is amortised or written down, which may also be subject to regulation. Typically, companies retain the services of an accounting firm for this kind of valuation work, though it may be permissible to conduct it in-house if you have sufficiently qualified and skilled staff available.

Under this approach, an asset can only be counted as ‘goodwill’ if it is intangible, cannot be identified and does not meet separability tests. In a finalised purchase price allocation exercise, this figure represents the premium a company has been prepared to pay to acquire the company and its assets, over and above the actual value those assets represent.

How is value determined in asset transfers?

Transfers occur when one or more existing IP assets are moved between existing entities within a business, or put into a new holding company or subsidiary. Because such transfers often represent taxable events, they are subject to

regulatory scrutiny, and a robust case needs to be presented in relation to their value.

You might decide to transfer your intangible assets between territories for several business reasons, such as:



- You have a large portfolio of IP rights and can achieve economies of scale by managing them in one place for registration and renewal
- You have acquired rights in several different countries, some of which may have been applied for locally by subsidiaries, and you want to consolidate these assets in a single business ‘vehicle’
- You have several core assets that all your operating units need to access, and you are advised to provide this access under licence
- You identify other commercial or tax benefits from locating your IP in a particular territory

In recent years, some high-profile companies have decided to place their IP in favourable tax jurisdictions to enhance profits. This, in turn, has brought international attention to bear on the tax consequences of moving intangible assets. As referenced in Chapter 2, there are now international guidelines by the Organisation for Economic Co-operation and Development (OECD) setting out the principles that must be followed when moving assets of this nature.

You are most likely to use an accounting firm to produce a transfer pricing report. As with M&A activity, the primary focus is likely to be on the future economic benefits that the IP being moved is expected to deliver. It follows that income-based approaches, which can take the specific contribution expected to be made by the IP and express this as a present-day value, are favoured both in regulation and in practice.



*A separate guide on IP taxation—**Making Tax-Efficient Use of your Assets**, is available within this series which sets out in more detail some of the ways in which the IP you own can affect the tax you pay, depending on how it is developed and used.*

Transfer considerations

Care and specialist professional advice are needed when planning your strategy, as well as when settling on a value. A few of the key considerations are set out below.

	Tax on transfer	Moving your assets from between business units and/or territories is likely to trigger a tax liability on the sale price. The regulations dictate that this price has to be properly considered and not minimised for tax convenience
	Tax on subsequent profits	Once your IP is moved into one location, it will attract tax based on the rules applicable to that territory. As well as variations in headline corporation tax, there may also be differences in treatment of income earned from licensing, in R&D tax credit availability, and IP-specific incentives like Patent Box. Your effective tax rate may be determined by a combination of factors
	Alignment with R&D activity	There is now a concept called the 'Nexus Approach' which increasingly informs national tax policy. Benefits such as Patent Box and similar reliefs, which can reduce your effective tax rates, may be linked to and limited by the location in which you choose to conduct your R&D work

3. When might I benefit most from a valuation?



IP law environment

The integrity and maturity of the IP court system, the opportunities offered for rights enforcement and the rights registration regime may all be important considerations in finding a safe place to hold your IP and intangibles

How do I set a selling price for my IP?

An IP valuation can help you determine what price you should be asking for your IP if you decide to assign it to someone else. The price you can command is likely to vary substantially, depending on whether and how the IP has been

used, the route you use to sell it, and the status of your business.

While IP assets are usually bought and sold together with the business that owns them, there are several circumstances under which an independent sale could be desirable or necessary. This could be a sale on a 'going concern' basis: you may, for example, have developed a technology, a product or some artistic works that you no longer consider core to your business. Assigning assets is also standard practice for organisations such as research institutes that develop a lot of IP, but seldom take it to market themselves (though licensing is often their preferred way of doing this).

Reaching purchasers of IP may not be straightforward. The unique nature of IP assets generally limits the number of companies that can make effective use of them, and there are few marketplaces on which they can be advertised. For this reason, successful IP sales generally arise as a result of direct approaches, which in turn are based on targeted research conducted either by IP owners or by brokers acting on their behalf.

IP may also be sold in a 'fire sale', the term used to describe any situation where value needs to be realised urgently. This can happen if a company is in difficulties and needs to raise cash, or if it has already gone into liquidation and the assets are being sold off. Whether the sale is orderly or not, there will still be a need to investigate value, if only to decide that an offer received is reasonable under the circumstances.

Unless you are contemplating a sale of your IP to another business that is expected to use it in the same way, valuations based on your own existing income streams may not reflect the value your assets have to the buyer. You will need to work out how it creates value for them. Alternatively, if creating your IP has required significant investment, there may be an argument for using a cost-based valuation approach.



practitioners may have access to confidential insights as well as publicly available information on previous transactions conducted under similar circumstances. Auctions will be able to advise on reserve pricing, and brokers should have good intelligence on companies which may be in the market for similar assets. In both cases, the more details you can provide on companies you think might have an interest in your assets (including competitors), the better.

How can an IP valuation assist me when licensing my IP to others?

Licensing can be a highly profitable means of monetising your IP assets, extending your geographic reach without incurring all the associated expansion costs. It is also one of the main ways that IP developed collaboratively may be commercialised. However, it is important to negotiate licensing arrangements based on a proper appreciation of your assets' value, which makes an IP valuation report especially useful.

Licensing agreements provide a great deal of flexibility in negotiating commercial terms. They operate on the basis that the licensee gains access to the specified IP rights in return for a payment of agreed royalties. These are usually calculated as an agreed percentage of the sales price of licensed goods or services (royalties always have to be paid from retained profits, but are usually levied on turnover, as this is much easier to audit). Research into the prevailing royalty rates in your industry, which a valuer can compile, can help avoid costly negotiating errors and embarrassment.



Licensing arrangements are not limited to on-going royalties. It is fairly common to incorporate minimum payments, one-off advance fees or upfront amounts that a licensee will be expected to pay. Negotiations regarding these matters are always easier for licensors to conduct when they have access to a report providing a well-evidenced view of the asset's value in relation to the applications and territories under discussion.

These reports will typically be based on projected incomes, though if the investment in creating the assets has been substantial, it may also be helpful to compile a cost-based view to reinforce the benefits.

Collaborating with third parties often involves the use of licences to make sure everyone has the rights they need to work together and develop commercially useful outcomes. It is always important to have a clear picture of the IP that you are contributing to in a project (this is 'background IP' for which partners will need to have agreed access rights) and consider what new 'foreground' IP you are expecting to be created that might rely on it.

3. When might I benefit most from a valuation?

IP valuation helps enable you to place a suitable value on assets that you are contributing as part of negotiations, and reach a fair settlement. While it may be too early at project commencement to work out the value of what will be created, it is very important to agree who will own the results and what basis will be used to license them to others where necessary. Here, knowing in advance what royalties may typically be payable can provide a useful bargaining chip.

*Collaborative working is covered in more detail in our accompanying guide called **Partnering for Commercial Advantage**. There is also another guide in our series dealing specifically with IP monetisation techniques, including licensing, called **Making Money from your IP**.*



What is FRAND licensing?

You may be in a position where your rights (usually patents) form part of a recognised industry standard. Standards are often required to ensure cross-industry compatibility on important issues (for example, media formats). In such cases, while you clearly have one or more assets that are of value, you will probably need to engage in cross-licensing to obtain freedom to operate.

To ensure that companies owning these influential rights do not act in an anti-competitive manner, there is a principle that applies to licensing terms concerning these so-called Standards Essential Patents (SEPs) known as 'FRAND'. Standing for Fair, Reasonable And Non-Discriminatory, FRAND describes how licence pricing should operate. Referenced in an increasing number of court decisions, it is designed to ensure no-one with essential IP can use unfair or unreasonable negotiating tactics towards anyone with a genuine need to use it.

*'Reasonableness' is particularly important from a valuation perspective. In the case of a SEP, a royalty could only be considered reasonable if the aggregate sum of **all** the licensing fees needing to be paid would not be so high that it renders the industry uncompetitive. This means rates for SEPs may therefore, be only a fraction of normal arm's length licensing agreements—but very high sales volumes usually offer more than adequate compensation.*

How does valuation support enforcement activity?

If another business is infringing your IP rights, the chances are it is costing you money. Being able to show that your IP has value, and that this value is being undermined by the actions of others, is fundamental to proving that you have suffered a loss that needs to be addressed.

Whether you are preparing evidence to be submitted in court, evaluating an offer to settle out of court, or getting ready for mediation discussions, it is important to be armed with a robust assessment of the value of your assets and the damage your business has suffered as a result of infringement. In such circumstances, the focus for the valuation activity will be on the IP's relationship to cash flow and profits within your own business (which may include any 'halo effect' it may have on sales of products and services more generally as well as those that are specifically covered by the rights in dispute), and how these have been affected by the actions of the other party over a specified period. Reference will most likely be made to the revenues you believe the infringer is likely to have derived as a result of copying you.

While injunctions can be very important, most IP infringement will ultimately be dealt with by agreeing a licence payment covering past misdemeanours and an on-going payment structure for future use. The court may direct this, or the parties arrive at a negotiated solution. Here, research will be needed to determine what the appropriate royalty rate should be, having regard to the territories and purposes for which the licence is required, especially if you (as the owner of the rights being infringed) are not already routinely licensing them to anyone else.

Unlike other valuation scenarios, it may be necessary for the valuer to offer 'expert witness' testimony in court. This has to be done by a specialist with the relevant experience and track record. Accordingly, it is advisable to ensure that any valuer you commission for litigation purposes can support their findings with this additional service, should it become a requirement.



*A separate guide in this series is available on IP enforcement—**Upholding your IP Rights**. This sets out the options you should consider if you believe someone else is infringing.*

3. When might I benefit most from a valuation?

Can an IP valuation help me raise finance?

Apart from grant funding, companies normally have two options when raising external finance: to sell shares and raise funding using its equity, or to borrow money from one or more sources. IP has an important part to play in the former and is increasingly taken into consideration for the latter.

As soon as an early-stage business requires funds that go beyond what it can secure from friends and family, it will need to consider approaching external investors. These investors are usually looking to build up a portfolio of shareholdings and invariably hope to obtain a good return on the funds they contribute.

The top considerations for investors are normally the skills and experience of the management team, the size of the opportunity, and the prospects for a future exit; in short, they need to have confidence that an ambitious business plan can be delivered. However, the IP a business has (together with the assets it expects to create in the future) is an important consideration. As well as providing confidence that the business is properly managed, good IP represents a barrier to entry for competitors and can provide freedom to exploit the target opportunity.

Placing a value on these IP assets—potentially at a future point, when they are generating profits, as well as the present—is a very important aid to negotiation. This is often done using income-based methods, but market comparisons can provide an important confidence-building measurement too.

Traditionally, banks and other lenders have not paid much attention to company-owned IP, and have been apt to disregard any intangible assets on a firm's balance sheet. This situation is beginning to change, thanks to a growing appreciation of the connection between good IP and cash flows, and the fact that balance sheets are poor at capturing this increasingly critical area of business investment.

Some specialist lenders are now finding ways of harnessing these assets. If the subject of your IP comes up in the course of discussing a loan, an IP valuation report will usually be required to explain what value these assets contribute to your business. In addition to a financial figure, you can expect further 'due diligence' to be required regarding your IP ownership and current and future usage.

Typically, an income-based approach is most relevant to financing applications, though some operate based on quantifying and then discounting historical investment, which additionally requires investigation of cost.



A separate guide in this series is available on IP finance—**Unlocking Your IP's Financial Potential** setting out in more detail how a well-managed IP portfolio can help a company obtain the funding it needs to grow.

How can my IP help me get the equity stake I deserve?

IP is not always created in the context of a business. An invention, design, business concept, technology or creative work can be the spark that leads an entrepreneur to form a company. A valuation report can help determine how best to take the value of this 'founding' IP into account.

At start-up, a business may not have the sort of robust plan that would typically form the basis for a formal IP valuation report. However, it may still be necessary to think about the value of IP being contributed to the business, to have discussions about ownership stakes. The relative contributions made by the founding parties are likely to influence the initial division of shares. At this point, the prospects for the business will be so uncertain that any assets it is using are likely, on any objective measure, to be associated with a low financial value. It may well be the case that the assets themselves are yet to be created and that what the business is actually starting with is little more than an idea.

However, IP valuations may still have an important role to play in a company that is pre-trading if IP assets need to be assigned to it before the business has an ability to pay for them. The contribution these assets are expected to make to future revenues and profits may be modelled and used as a means to agree an equity stake in lieu of payment. It is not uncommon for firms developing software or providing essential services to agree to take equity rather than cash; it is definitely in the business's interest to ensure it does not overpay for this support, especially if it anticipates the need to raise further investment in the future.



It is important to note that any transfer of IP ownership has the potential to trigger a tax liability. This can be minimised by a low asset valuation, and it is often legitimate to argue that the value of IP assets in a very early stage business is very low. Problems may arise, however, if this runs counter to the message such an enterprise wants to send to its prospective investors. Timing and sequencing of discussions regarding equity allocations are therefore very important, and professional advice should always be sought.



How is IP valuation done?



04



Cost

How much would it cost to re-create all the IP from scratch (reproduction cost method) or replace it with something of equal utility (replacement cost method)?

How does a cost-based valuation work?

The cost approach seeks to determine the current value of the investment made in creating and developing a set of IP and intangible assets. The usual emphasis is on either reproduction cost (how much would someone else need to spend to bring the same IP to the same point?) or on replacement cost (how much would it cost to create something of equal utility, but not necessarily using the same approach?).

For **reproduction** cost, the point of reference is usually the factual historical investment that has been made by a company in its intangible assets in specific, identified areas. Provided the costs are well documented, basic calculations are quite easy to derive. The checklist at the end of this chapter itemises the areas that are typically considered.

The main difficulty commonly encountered is that some costs are not routinely recorded. A particular problem early-stage companies face is accounting for the substantial amounts of unpaid time and effort, some of which may have been incurred before a business was created. Opinions vary as to how much value to place on 'sweat equity' of this kind.



Depending on how long ago your costs were incurred, they may need to be 're-baselined' to reflect current prices. However, it's equally possible that they may need to be discounted for approaching obsolescence. Your innovation may start to be overtaken by new technology; its market position could be undermined by competition, or the rights associated with it might be nearing the end of their life.

The **replacement** cost method, while less often applied, can be very important. This requires the valuer to consider whether there are other, cheaper and easier ways that anyone seeking to deliver the same innovation would most likely use.

As an example, when considering hand-held computing devices, the disruptive effects of smartphones, 4G communications, open source code repositories and software development kits means that the costs of building and distributing applications have plummeted since this technology first came to market. These considerations may make the costs of reproduction irrelevant.

As with any IP valuation, the sole focus of the exercise should be on intangibles. If costs have been incurred on buying in physical items, these should already be on the company's balance sheet, and including them therefore risks double-counting.

4. How is IP valuation done?



CHECKLIST

Typical areas of IP and intangible cost

✓	Areas	Examples
	Invention	Costs associated with researching, describing and designing the concepts that underpin a company's innovations. Likely to include payroll costs, prototype development costs and consulting fees (and possibly some related disbursements, such as sourcing external research reports)
	Implementation	Costs associated with developing a means of delivering the invention. Likely to consist mainly of internal salary costs and external advisory and production development costs, but could also include any licences or software needing to be purchased to operate machinery
	Brand development	Costs incurred when developing brands, logos and physical/digital promotional collateral (likely to be mainly salary costs, unless external agencies have been involved). There may also be costs from domain name registration and maintenance and management of social media accounts
	Design development	Costs relating to concepts for product styling and presentation, including computer design for elements such as graphical user interfaces (likely to be salary costs unless external agencies have been involved)
	Intellectual property costs	Costs of filing, prosecuting and defending patent, trade mark, industrial design rights and copyright globally. This typically includes both official fees and advisory costs
	Other relevant disbursements and expenses	If an invention or creation is very specific, other categories of cost may be apparent. It may also be considered appropriate to include an element of supporting overheads within the overall cost calculation

TABLE

What are the pros and cons of a cost-based approach?

Pros		Cons	
✓	Only requires internal data	✗	No relationship to market value or degree of market validation
✓	Relatively easy to conduct: can simply be a case of analysing historical labour costs for staff and contractors plus direct expenses and relevant overheads	✗	IP frequently costs much more (or much less) to create than it can command in the market
✓	Often relevant for software, where barriers to imitation may be lower	✗	Method is highly sensitive to the development stage of a given technology (the cost picture may not be comprehensive)
✓	Addresses the potential question: "How much would it cost me to do this myself?"	✗	Historical costs can be difficult to allocate accurately, especially where a business organisation engages in multiple innovation workstreams
✓	Produces results where an invention has required a substantial amount of basic research that may not be manifested in the final product/ service	✗	Adjustments need to be made for commercial, technical and legal obsolescence, which can be difficult to make with accuracy
✓	Useful as a negotiation baseline (for example when looking to swap IP for equity)	✗	The method risks ignoring the value of the IP rights, particularly where patents are involved (because reproduction may not be permissible regardless of cost). Some costs are not in fact replaceable
✓	Can be helpful when income streams are hard to link to the IP assets	✗	A buyer can often argue that its costs of reproduction would not be the same
✓	An important element in balance sheet work	✗	Identification of relevant replacements can become a highly subjective process
✓	In principle, cost analysis is actual, verifiable, objective and consistent	✗	It may be difficult to establish how much of the actual historical cost has been spent productively

4. How is IP valuation done?



Market

Have IP-related transactions taken place in similar sectors, with enough features in common to make a comparison relevant, subject to appropriate adjustments? Or is there enough IP detail in broader commercial deals to extract a point of reference?

How does market comparison work?

In theory, making comparisons between the IP under scrutiny and documented sales of similar intellectual asset 'bundles' provides the best way of arriving at an indication of open market value. This is what market comparison aims to achieve. It is the method normally used to

value tangible assets but is a complex concept to apply to intangibles.

Physical things like houses and offices, vehicles, plant and machinery are routinely bought and sold on their own, and the prices paid are readily discoverable. However, the values of IP tend to be 'wrapped up' with the acquisition of companies rather than dealt with separately. Where IP does change hands independently, sales are often conducted in secret and so are not publicly reported. While IP auctions do exist (and are sometimes held in public), prices are seldom entirely comparable due to the uniqueness of the IP involved.

Market comparison therefore, presents IP valuers with a tough challenge. However, several data sources are available to help plug this information gap, and the web makes interrogating them easier than has been the case in the past.

It is usually possible to identify activity in relevant sectors, to lend confidence that IP is, in fact, being bought and sold (this confirms that there is likely to be a market). Interrogation of company announcements (and their published accounts) where similar IP is in use can yield data on purchase prices. These may enable multiples operating in the sector to be identified, which can be applied to the target business.

Sometimes more direct insights can be derived on the value given for IP, provided the companies are comparable in terms of size and maturity. In addition, searches of databases of 'material contracts' can identify relevant parallels (the US Securities and Exchange Commission requires companies to publish information on these contracts, which include licensing agreements).

Many IP valuation reports do include some element of market analysis and identification of possible precedents. However, these generally need to be adjusted, which introduces subjectivity. Accordingly, views derived from the market may only be robust enough to act as a check and balance to confirm that the view derived using other methods is in the right 'ballpark'.



TABLE

What are the pros and cons of a market-based approach?

Pros		Cons	
✓	Easy to understand: the same approach used for most tangible asset transactions	✗	Comparator data is hard to find: independent sales and purchases of IP happen infrequently and are often negotiated in secret
✓	Factual, simple and accurate, if close comparators are available	✗	IP is by definition unique, therefore comparisons are always inexact
✓	Process of adjustment can be explained logically	✗	If multiple adjustments are required, the comparison process becomes more subjective and less reliable
✓	Assets do not need to be put up for sale for their value to be identified	✗	The more disruptive a technology is, the less likely comparators are to be found —so hard to use with the types of IP that are most in need of valuation
✓	Useful as a 'sense check', even when comparators are not precise; the presence of transactions may be reassuring	✗	Published IP transactions are often subject to special circumstances, and may not be representative of the value that would normally be realisable
✓	IP licensing deals can sometimes provide a suitable proxy for a sale	✗	IP and intangibles are seldom created with the intention of selling them
		✗	Care must be exercised to understand the sale context: for example, 'going concern' and 'fire sale' values are not comparable
		✗	Identification of relevant replacements can become a highly subjective process
		✗	It may be difficult to establish how much of the actual historical cost has been spent productively

4. How is IP valuation done?



Income

What contribution do these assets make to past, present or future sales and/or profits?

How do income-based methods work?

Valuation activity is often undertaken because some sort of transaction is being contemplated. The main question to be answered generally concerns the business contribution the IP is making—for which reason, revenues, cash

flows and profits are typically the primary inputs.

Income is also often considered the best way to take account of the unique nature of the particular ‘bundle’ of IP a firm owns because its value is judged on its own historical and expected performance. The inputs may involve consideration of past financial results, multiples of current contribution, or future incomes. Depending on the method used, the focus may be on top-line revenue or cash flows, and in other cases, it will be on profits.

There are two main difficulties to be overcome when using income to gauge IP value. The first is that businesses generate income from a range of assets, of which the IP is only one. Various methods have therefore been developed to isolate the value of these intangibles compared with all the other things a business owns and uses. These are set out in the following section; their application requires varying amounts of research.

The second is that in a transactional context, the most relevant IP business contribution is typically the one it is going to make in future, not the one it has already delivered. This means that forecasts have to be processed to accommodate the uncertainties they inevitably contain (and the younger the business and the less well established its cash flows, the more uncertainties there are).

Uncertainties in forward-looking turnover and profit estimates are one reason why income-based calculations are often expressed as a range rather than a single value.



What are the most popular income-based valuation variants?

Valuation experts tend to prefer one of three methods when examining intangibles, all of which seek to identify the income attributable to the IP. The terms you are most likely to see used to describe these methods are relief from royalty, excess earnings and profit differentials or premiums.

Most methods that are forward-looking in nature express future revenue streams as a present-day value using a discounted cash flow (DCF) approach. The key variable in any such calculation is the discount factor or rate that is applied. It is customary in IP valuations to use a 'risk-weighted' figure, rather than a percentage number that simply reflects the average cost of capital to the business in question, simply because the forecasts that are modelled are never certain.

METHOD	PRINCIPLE	PROS	CONS
Relief from royalty	<p>The value a company derives from owning IP assets is equivalent to the amount it does not have to pay (its 'relief') in licensing fees to an external IP owner (the 'royalties')</p> <p>This can then be discounted back to a present-day value</p>	<ul style="list-style-type: none"> • Most popular method; relatively easy to understand • Royalty rates available from specialist databases • Incorporates data from factual transactions • Useful data for licensing 	<ul style="list-style-type: none"> • Requires royalty rates to be set appropriately • Usually applied to sales/cash flows, so susceptible to influence from optimistic forecasting
Excess earnings	<p>Takes a company's profits (earnings) and then subtracts the proportion attributable to tangible assets</p> <p>The likely future earnings (often called 'multi-period excess earnings') are determined, and charges are subtracted for the use of contributory, tangible assets</p> <p>By implication, what remains is intangibles-related, which can be discounted back to an estimated current value</p>	<ul style="list-style-type: none"> • Works well in a mature business • Logical: based on the assumption that intangibles are generally responsible for enhanced performance 	<ul style="list-style-type: none"> • Harder to use in high-growth environments where profits are being reinvested • Difficult to attribute value accurately where a range of assets are being used in combination

4. How is IP valuation done?



METHOD	PRINCIPLE	PROS	CONS
Profit differentials (or 'premium pricing')	Looks at the extra earnings a company can realise when it has the IP that is being valued, compared with other companies Often applied by projecting a price differential over a product's useful life, deducting costs of marketing support, and discounting the total back to derive a present-day figure	<ul style="list-style-type: none"> • Can be calculated at a whole company level, or an individual line of business, or even by product • Works well in contexts like fast-moving consumer goods where pricing is transparent 	<ul style="list-style-type: none"> • Harder to apply where there are few comparators • Requires specialist research • Tends to ignore that pricing and profit differences can arise from several factors, not all of which are intangibles-related

TABLE

What are the pros and cons of an income-based approach?

Pros		Cons	
✓	Considers the value that the IP delivers (or will deliver) in the marketplace	✗	Profit comparison methods require specialist research and industry insight and are therefore expensive
✓	The most common way to value IP	✗	Any calculations made using profit data are usually firm-specific and not reproducible
✓	The preferred method for some specific purposes, such as transfer pricing	✗	Capitalisation rates used for some calculations may be fairly subjective
✓	Calculations can be based on historical performance and business plan projections, which companies are likely to be able to provide	✗	The quality and accuracy of company forecasts vary considerably, and even the best forecasts contain a margin of error
✓	The most useful and relevant method for most forward-looking transactions	✗	Adjustments always need to be made to forecasts to cater for risk, which generally introduces further subjectivity into the valuation process

Pros		Cons	
✓	The more established a company is, the more accurate income methods are likely to be	✗	Relevant information is not always available from company internal reporting systems
✓	Sensitivity analysis can be applied to test the effect of alternative assumptions and outcomes, to lend confidence to the results	✗	Process normally requires assumptions to be applied; care is needed to ensure these do not have a compounding effect on the outcome

Are other methods sometimes used?

Since all valuation methods have drawbacks, several variants have been developed to try to tackle them—some proprietary, others more generic. A couple of the more common ones you may encounter are briefly described below.

A key vulnerability of using future incomes for valuation purposes is that they are uncertain. One way of tackling this is to deconstruct the future cash flows by assessing each of the risks or hurdles that need to be overcome and assessing their probability individually. Typically, this works backwards from the desired outcome.

This probabilistic approach has several variants, including so-called ‘real option’ methods of valuation. They reflect the way that investors often consider potential returns: they look at the probability that each particular outcome will materialise, weight its impact, and produce a present-day figure by applying these weightings to a risk-free rate of return.

Methods like this can be especially useful when trying to determine value in IP that is still at a considerable distance from market. As well as being hard to set, using a single discount rate may fail to take into account the ‘binary’ nature of the risks involved (in other words, the fact that any failure may prove terminal)—and may also obscure the reason for embarking on the venture (because, if it works, it will be very valuable indeed). The real options value of a project may turn out to be higher than that obtained using other methods of calculating net value, such as discounted cash flows.

‘Big data’-style approaches have also been used to seek to tackle these uncertainties. The Monte Carlo method is a computer-based method of simulation that is sometimes used to address the uncertainties. It works by taking a large number of possible outcomes and applying algorithms to determine which are most probable. As well as IP valuation, it has applications in other fields such as determining the value of financial options.

4. How is IP valuation done?

What generally determines the selection of a valuation method?

Individual valuers may have preferred methods. However, many will apply more than one approach when constructing a report. The key drivers in determining which ones are used relate to the context in which the valuation is happening, and the availability and likely accuracy of the data needed to drive it.

Sometimes, the context in which a valuation is happening will suggest a particular method. If for example a transfer of IP assets is being contemplated between business units, an income-based method will be the first choice, because there will be an expectation of future benefits that might vary from past performance to a material extent.

By contrast, an income-based approach may make little sense in an insolvency situation because the future revenue-generating potential of the IP assets will be highly uncertain. Accordingly, cost or market comparison becomes more relevant benchmarks.

The restrictions on the availability of data may be internal or external. To take cost as an example of internal constraints, system deficiencies or inaccurate recording may make it difficult to identify and retrieve specific investment figures, especially where all IP-related costs have been expensed. Key knowledge of development costs and processes may be lost when staff leave, and it can prove very difficult to separate different investments in projects that were conducted concurrently. However, independent research has established that some consideration of cost is generally relevant—if only because it is hard to put forward a credible case that IP has very significant value without evidence of the investment made in creating it.

The main external constraint often encountered is the lack of market comparables. In some sectors, licensing and M&A activity are relatively commonplace, but even where this is the case, a technology may be so disruptive and different that legitimate parallels and precedents are very hard to find.

In spite of these potential difficulties, there will be few situations in which it is not possible to obtain a reasonable estimate of IP value. This should be the case provided the assets exist, the company genuinely owns and controls them, and is using them to make money!





CHECKLIST

Typical IP valuation methods applied to different purposes



IMPORTANT NOTE! This checklist is based on market research amongst established valuation practitioners. However, it is only for general guidance. Your valuer will have to determine the best way to value your particular assets, depending on the data available and the type and mix of IP you own as well as the context. These factors may determine that a particular method is not advisable, or not possible.

Reason for IP valuation	Typical method(s)	Rationale
Company acquisition or merger	Income (or cost)	Purchase price allocation will normally use income methods to consider the contribution of any revenue-generative assets. If these include software or other IP that can easily be reproduced, these may be valued at cost
Transfer of intangibles between companies or territories	Income	The transfer is being made in expectation of future benefits, so the focus is on quantifying these
Transfer of intangibles between companies or territories	Market (or income)	The amount paid needs to be compared with a fair value in the market. Often, there may not be a clear point of comparison, so the valuer may use an income method to work out what someone would be prepared to pay to secure the benefits associated with the IP
Litigation proceedings	Income (or cost)	The emphasis of litigation work is usually quantifying lost profits and showing that they are related to the IP rights
IP sale or auction	All three methods	The ideal method is market, if any valid comparators are available and recent, but these are often absent. In which event, cost can be used to consider what another party would be prepared to pay where IP can be copied: if the IP is well protected and highly distinctive, estimating the income it could generate for a willing buyer may be most accurate

4. How is IP valuation done?



Reason for IP valuation	Typical method(s)	Rationale
A new joint venture, collaboration or partnership	Cost (or income)	When setting up a commercial relationship, reference to investment in IP being used may be most persuasive if it is not being used elsewhere. If the IP is already associated with verifiable cash flows, income may be a better approach
Licensing software or technology	Income	The usual point of licensing is to obtain freedom to operate or generate income via royalty payments. The emphasis is normally on future benefit
Raising finance	Income	For investors or lenders, relationship to future expected cash flows are normally the driver for any interest in IP
Business restructuring or recovery	Income	New investors will need to understand the potential returns on their investment
Insolvency proceedings	Market (or cost)	Comparative sales provide the best guide. Cost may assist in estimating how much a purchaser could save by buying the assets (now unlikely to be enforceable) instead of developing them
Establishment of a new business	Cost (or income)	As for joint ventures, collaboration and partnerships



What drives IP value, and will my report show it?



05

5. What drives IP value, and will my report show it?



CHECKLIST

Which of the key IP value contributors do I have?

Not all of the following factors are equally powerful in determining how much value can be found in your IP assets. However, the more ticks you can put in the boxes of this (non-exhaustive) list, the more likely it is they represent a substantial amount of 'hidden value' in your business.

✓	Value Driver	Examples
	Portfolio strength	I own IP rights that are broad enough to support a sustainable competitive advantage.
	Portfolio depth	I own a blend of registered or granted IP rights and applications, showing my business already has enforceable rights <i>and</i> continues to innovate.
	Portfolio mix	I use a combination of different types of IP rights and identifiable intangible assets that can add value to each other.
	Portfolio maturity	I have identifiable IP assets that have a substantial period left to run before they expire (provided I renew them when due).
	Portfolio separability	My assets could, in theory, be successfully deployed by another business and deliver similar benefits.
	Historical investment	I can point to substantial financial investment in developing the technology, design, creative work and/or branding that underpins my products/services.
	Pedigree	The IP I use has been developed with acknowledged experts in my technical field (and I own all the rights I need to exploit it).
	Quality	My IP rights have been professionally drafted and will be enforceable against infringers in all the markets that are most important to my business.
	Associated with strong cash flows	There is a clear connection between the rights I own and my company's ability to generate revenue regularly, across all the territories that are most important to my business.
	Size of associated revenues/profits	The revenue and profit that I generate are both substantial and on an upward trend.
	Market context	My business and my IP rights serve a large and growing market that I can quantify and predict with a high degree of confidence.

✓	Value Driver	Examples
	Competitive advantage	My IP rights underpin a benefit that gives me superior profitability compared with my main competitors.
	Evidence of enforceability	My rights have been challenged and have been upheld by a court, formed the basis of an out of court settlement, and/or successfully used in mediation.
	Evidence of licensing appetite	I have successfully licensed my rights to other companies, or they form part of a franchise that I own.
	Presence of contracts or 'lock-in'	The income streams to which my IP relates are underpinned by contracts or are reliable and recurrent.

What information will you need to provide for an IP valuation?

Any valuation can only be as thorough and accurate as the information that goes into it. Inevitably, given the uniqueness of IP assets, part of this information—sometimes, the majority of it – can only come from you. Good preparation can save you time and money.

Firstly, a valuer will need to understand some basic information about your operations. This will include your overall stage of business development, your recent turnover and profitability, the sector and the competitive landscape in which you operate.

It will also be important to explain exactly what IP you have and how mature your portfolio is; where possible, most valuers will want to look beyond your registered and granted rights to understand your wider intangible assets, such as the contracts that help you deploy this IP in your market.

It will also be very important to share as much as you can about the context for the valuation you wish to conduct. This will inform the selection of one or more appropriate methods, and help the valuer determine both a price for the work and the detailed schedule of other information they may require to complete it. Chapter 4 sets out some of the contexts most commonly encountered.

Since nearly all valuations contain a forward-looking element, you will also usually need to provide a business plan containing the estimates of relevant financial performance for at least the next two or three years. A valuer will not normally write the plan or produce forecasts for you, because they do not know your business well enough, and will then end up building assumptions on assumptions

5. What drives IP value, and will my report show it?



Clearly, there will be some contexts where this is not possible, such as insolvency. Also, in the case of a valuation where there is litigation for infringement, it may be more important to look backwards, to identify how long it has been going on and quantify the number and value of relevant sales.



Which other types of information may be desirable?










Some IP valuations will require additional information above and beyond your management accounts, IP inventory and business plan. This may be because of the valuation method that has been chosen, or the purpose which your valuation needs to serve. Here are some practical examples.

If a cost-based valuation is appropriate, you will need to be able to quantify your historical investment in several areas (see the checklist at the end of Chapter 4). If your IP was first developed some years ago, and if it was one of several R&D projects you were pursuing at the time, this may not be straightforward, because you will need to determine which investments were relevant.

Where a market comparison is required, the more information you can provide on your competitors and their activities, the better. Also, if you have referenced market intelligence reports in your business plan to help you determine the size of the opportunity you are pursuing, these may prove very useful for a valuer to understand the trends that may affect your prospects.

Other information requirements vary by context. If your valuation is required to allocate a purchase price for a business, your valuer will need to examine all assets you have bought and consider which ones are identifiable and separable, as well as how much you paid. Alternatively, if you are contemplating a licensing agreement, it will be important to gather as much evidence as possible on what your licensee's sales incorporating your IP are likely to be, so as not to under- or over-estimate the size of the opportunity.

Checklist of information required

Information necessary for a valuer to produce a typical report		Information needed for some valuation variants, and likely to be helpful to any valuer	
	Your historical accounts for the last two or three years—assuming you have them (not relevant if you are pre-trading)		A breakdown of the investment that has gone into creating and managing your IP assets, and how this has been accounted for
	Your business plans containing your financial forecasts for the current year and at least two further years		A list of any IP or intangible assets purchased from a third party (for example, as part of an acquisition)
	A schedule of your registered IP rights and important copyright assets showing territories, dates and numbers		An inventory of all internally-generated intangible assets (you should have one of these if your IP has been audited)
	Information on how the IP rights support or are linked to your cash flows		Market intelligence reports and any other information/research on competitors, prospective partners or licensees
	Information on other relevant intangible assets that give confidence to your plans and projections, such as contracts, quality standards and regulatory approvals		

How do IP valuation reports vary in size, cost and content?

There is no 'set format' to an IP valuation report—partly because of the wide range of contexts in which it can be delivered, and therefore the different questions it may be intended to address. However, you can expect any report to use one or more of the three generally recognised valuation approaches (cost, market comparison or income), and to set out clearly the information that has been used to derive the results.

Size and cost of reports are often related because most valuers charge for their reports based on the time it takes to gather information, analyse the data, reach conclusions and write up the findings. The more due diligence that is required and included, the larger and more expensive the report is likely to be.

5. What drives IP value, and will my report show it?

As a rough guide: if all the relevant factors are easy to establish, your report could be less than 10 pages long. If there is a lot of cross checking to be done, it could be 4x-5x that size, or more. If it is long, it should always feature an executive summary of the main findings.

IP valuers fall into two broad categories. The first is accounting firms—large and mid-size—many of which have valuation teams. They will usually be the first port of call for companies engaging in M&A activity (and so requiring purchase price allocation reports) and transfer pricing (when assets need to be moved between companies). Where they have insolvency and recovery teams or focus on helping companies raise finance, they may value IP in these contexts too.

The second group is specialist or ‘boutique’ valuers. These are independent firms who are more likely to approach IP valuation from a technical or legal perspective. If you need valuation work to be done in the context of litigation because you are trying to determine a value for your brand, you may well be referred to one of these companies, but they can also undertake most other types of valuation work.

Neither of these routes is necessarily better, or cheaper than the other. Costs from a specialist may start lower but can be just as expensive as an accounting firm depending on what is required (particularly in the context of litigation).

Your key selection criteria should be based on purpose as well as budget. Make sure the valuer you choose has demonstrable experience in delivering IP valuation reports in the context that is most relevant to you.

*The diversity evident in IP valuation report sources, sizes and content can raise some difficulties when persuading others that your results are reasonable. However, international policy and practice is moving towards recommended **methods** for specific purposes such as transfer pricing and financing. Also, online IP identification and valuation tools are now available that provide a consistent structure and format, though these naturally require good quality inputs to deliver accurate results.*



How can you tell whether an IP valuation is accurate?

There is a popular misconception that IP valuation is highly subjective and is just designed to put the best possible 'gloss' on a company's assets. However, provided that the calculations follow standard industry practice and the underlying data is agreed to be reasonable, they are capable of delivering accurate, usable results, and is as reliable as any other form of valuation.

The main disadvantage of IP valuation, as explained in our earlier sections, is that the reference points to market prices are much less clear with intangible assets than they are with tangible ones. This is because IP is not typically bought and sold in the same way. It does not mean that IP value cannot be substantiated—which may often be done by using more than one set of assumptions, or more than one valuation method—but it does mean that it is particularly important for an IP valuation report to show its workings clearly.



*Often, an IP valuation report will be accompanied by **due diligence** work. Depending on the valuation context (and the budget), this may be wide-ranging. Typically, your IP rights will be scrutinised for ownership, quality and enforceability; the trends in the market you serve will be examined; your forecast cash flows may be 'sensitised' (adjusted downwards), depending on the extent to which they are underpinned by actual historical performance; costs you have previously incurred may be tested to see if they are relevant or adjusted for obsolescence. All these activities make the results more robust.*

There are several techniques that valuers may use to check the reasonableness of their findings. One method commonly favoured is to 'triangulate' the value found by applying two or three distinctly different methods and seeing how much variation these produce (for example, by using market comparison to ensure that an income-based calculation does not derive a figure that would be without precedent in your industry). There can be good reasons why different approaches can generate widely differing views of IP value, but in general, the more methods that point to a similar outcome, the more confidence you can have in it.

Another method in recognising that IP value is a subset of overall enterprise value is to derive a figure for your business as a whole and ensure that the IP element does not account for a disproportionate amount of it. However, while the relationship between IP and enterprise value is fairly well understood in mature operations, the ratio may be very different when a business is at an early stage.



Application and use of main IP valuation methods

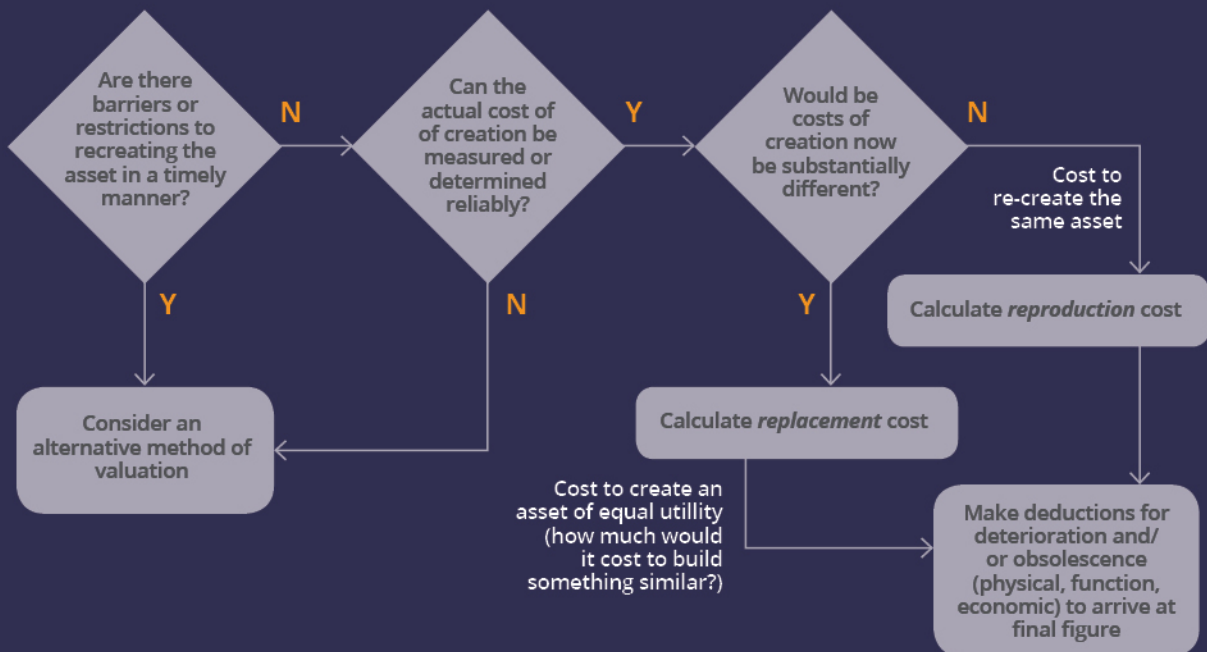


06

The following three flowcharts summarise some of the key considerations that are likely to apply when choosing the most appropriate method of IP valuation. In each case, the text refers to a single 'asset', but the approach is similar for bundles of assets, which would normally be involved in the valuation process.

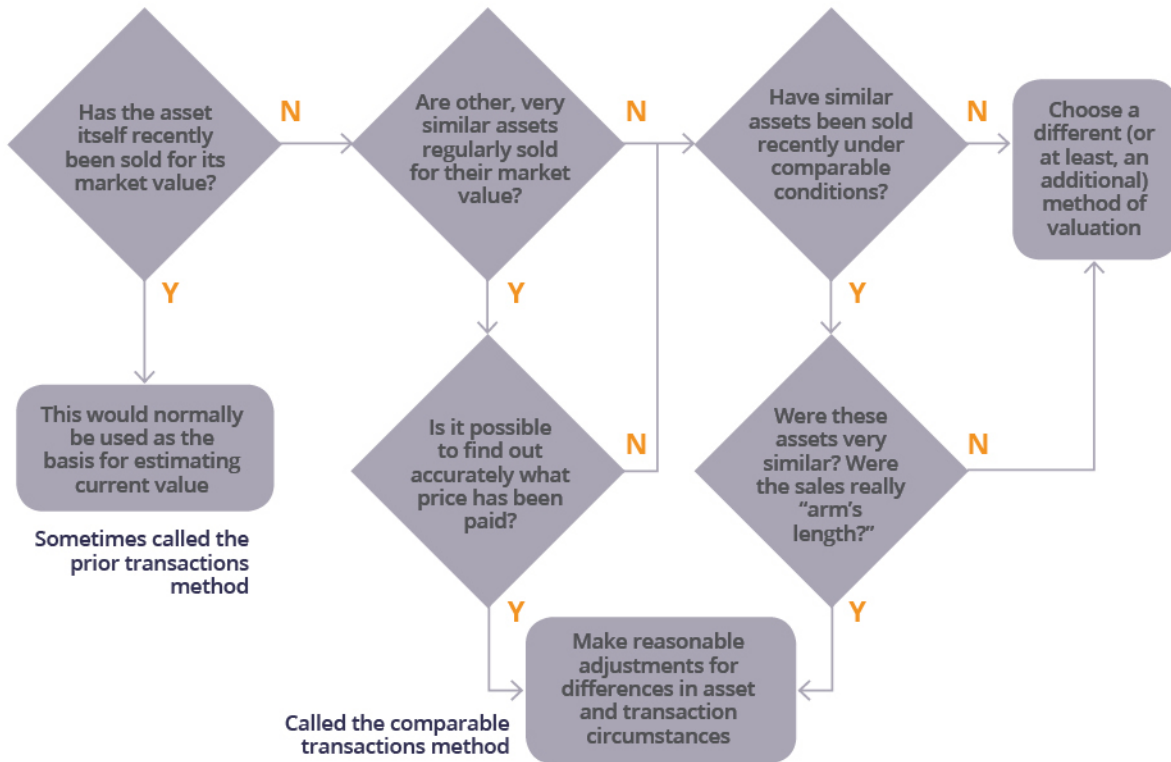
These diagrams illustrate some of the key principles set out in IVS 2017. However, they are **not** exhaustive, and you should consult with your valuer to determine the right approach for your purposes and circumstances.

COST METHOD

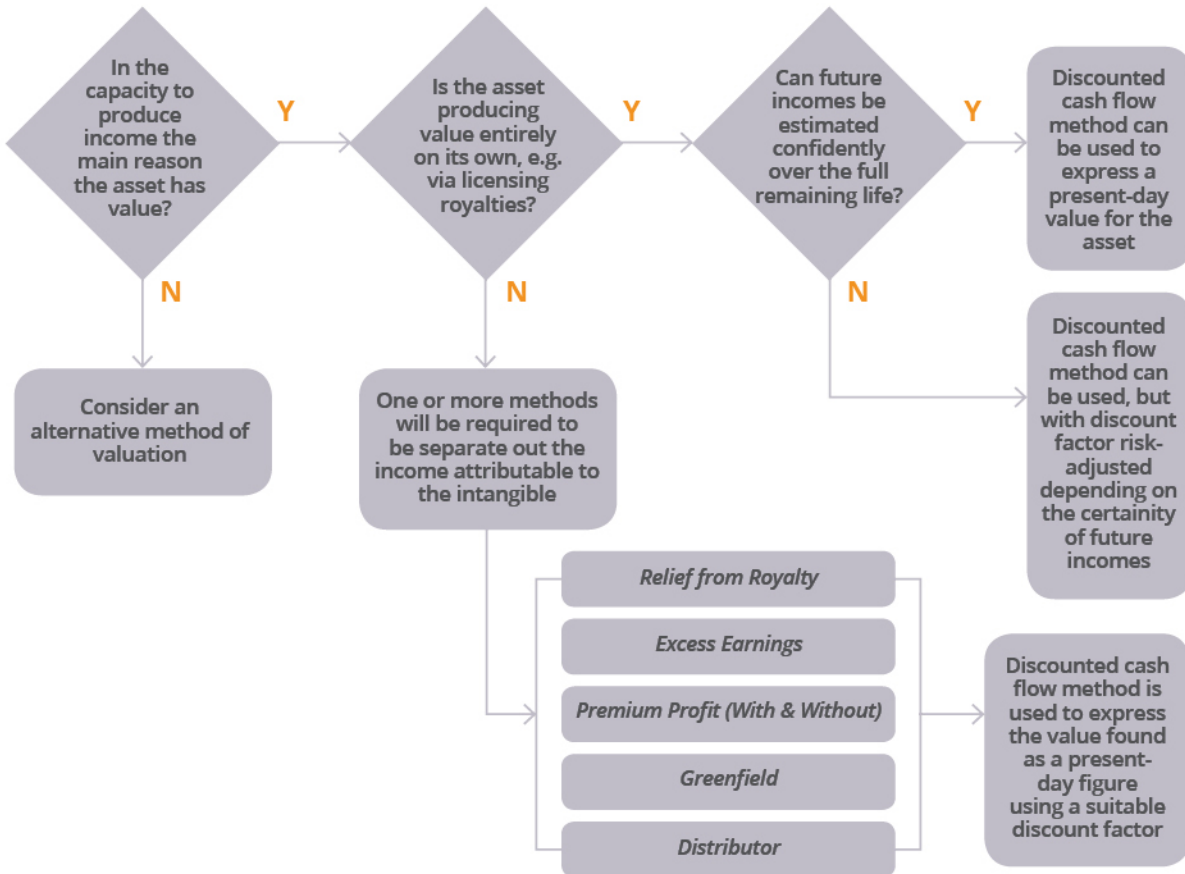


6. Application and use of main IP valuation methods

MARKET METHOD



INCOME METHOD



Methods listed in IVS 210 (2017)



Where do I get help?

07

GETTING RIGHTS GRANTED

IPOS : www.ipos.gov.sg/resources

GETTING IP ADVISORY

- Intangible asset audit
- Intangible asset strategy and management
- Business and technology intelligence
- Commercial analytics on patents
- Due diligence on intangible assets
- Bespoke advisory services

GETTING IP TRAINING

- Executive programmes
- Certifications
- Undergraduate and postgraduate courses
- Regional training

GETTING PATENTS RIGHT

- Patent search and examination (for both national and international PCT applications)
- Patent analytics
- Customised search services

DEALING WITH DISPUTES

IP Legal Clinic (IPOS) : www.ipos.gov.sg/e-services

FOR INFORMATION AND ENQUIRIES

Website : www.iposinternational.com

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