



INSTITUTE OF VALUERS AND
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VALUATION OF INTANGIBLE ASSETS:

Key Focus Areas and Guidance



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This document constitutes a IVAS Guidance Note. CVA holders are expected to comply with the requirements of this Guidance Note, or provide an explanation for any departures.

1. Background

- 1.1. In recent years, the landscape of business value creation has undergone a fundamental transformation. No longer confined to tangible assets recorded on balance sheets, companies are now leveraging a diverse array of intangible assets, ranging from proprietary technologies and data to brand reputation and digital platforms, as primary sources of competitive advantage. Broader trends, including evolving business practices and technological progress, have contributed to broadening the scope of intangible assets and introduced new considerations in the valuation.
- 1.2. While valuation standards and guidelines for intangible assets exist at international, regional, and local levels, they differ significantly in scope and depth. Some standards provide only high-level principles without detailed implementation guidance, while others include prescriptive methodologies for specific asset types. These inconsistencies matter because they can lead to variability in valuation practices across jurisdictions, making it harder for users of such valuation report to compare values, assess risks, and make informed decisions. In this regard, there is merit in developing a valuation guideline based on the International Valuation Standards (“IVS”) that can be widely adopted internationally.
- 1.3. To this end, a study was conducted by IVAS in 2023 to identify key focus areas in existing intangible asset valuation practices where more detailed considerations and guidance could be provided to existing principles-based standards aim to reduce subjectivity, foster transparency and credibility, and strengthen investor confidence, supporting licensing, financing, and transactions globally. The study was conducted via interviews with stakeholders such as lenders, investors, intellectual property legal practitioners and valuation practitioners across Canada, Singapore, the United Kingdom and the United States.
- 1.4. Based on the study, stakeholders have expressed that unlike tangible assets, intangible assets often exhibit characteristics that require greater reliance on professional judgement during valuation, which can result in increased variability in their assessed values. Therefore, stakeholders have emphasised the need to understand the risks associated with the intangible asset and have expressed a preference for more disclosures in the intangible asset valuation report.
- 1.5. Accordingly, nine (9) focus areas (“Focus Areas”) were identified as areas whereby a guideline should be developed. The nine Focus Areas relates to:
 - (i) Characteristics of intangible assets and the environment in which they are utilised
 - (ii) Risk factors of intangible assets;
 - (iii) Determining whether to value the subject intangible asset as a standalone or grouped with other assets (including other intangible assets, where applicable);
 - (iv) Determining a hypothetical royalty rate for intangible assets valuation;
 - (v) Determining the economic lives of intangible assets;
 - (vi) Performing sensitivity and/or scenario analysis for significant risks;
 - (vii) Performing corroborative analysis for intangible assets valuation;
 - (viii) Disclosure of subsequent events post the valuation date; and
 - (ix) Additional report disclosures when performing intangible assets valuation.

- 1.6. In addition, feedback received from a diverse range of stakeholders through a public consultation conducted from 18 August to 12 September 2025 was considered in refining the intangible asset guideline (the “Guidance Note” or the “GN”).

Objective

- 1.7. The objective of the GN is to provide a practical and interoperable framework that supports robust valuations of intangible assets. With robust valuation, enterprises are better positioned to realise the potential of their intangible assets value, which is essential for intangible asset related transactions, including licensing, investing and collateralisation.
- 1.8. The GN provides guidance on the Focus Areas for valuers to apply when valuing intangible assets. They aim to guide our valuation professionals on the valuation of intangible assets across a broad range of intended uses, including, but is not limited to, commercial lending, tax purposes, financial reporting, disputes and litigation, and mergers and acquisitions (M&A), offering clarity on approaches and considerations pertinent to their unique valuation needs. However, it is important to note that certain valuations may require additional considerations or specific approaches depending on the unique requirements of the engagement. Such considerations should be assessed on a case-by-case basis and confirmed with the client, the company owning the intangible asset, or other intended users and their advisors (e.g., financing institutions). Where guidance from authoritative resources already exists for such specific purposes, the GN does not attempt to reproduce or interpret them.
- 1.9. These Focus Areas were identified based on stakeholder feedback as areas where additional structure, consistency, and clarity would be most beneficial to valuation professionals and user of the valuation report. As such, the GN does not attempt to comprehensively address all possible inputs, assumptions, or methodologies relevant to intangible asset valuation. For example, while the GN discusses the determination of hypothetical royalty rates in detail, it does not cover the detailed application of the relief-from-royalty method as well as other methods under the income approach. The GN is intended to supplement existing standards and broader guidance by focusing on topics where additional practical direction would be most beneficial, while avoiding duplication of content that is already well established.
- 1.10. The GN does not aim to replace or modify the principles of intangible assets valuation set out in the existing International Valuation Standards.
- 1.11. The GN is intended to reflect the best practices in intangible assets valuation at the time of publication, with the understanding that they will be revisited, and, if necessary, revised to reflect changes in regulation or relevant standards.
- 1.12. The GN also does not seek to address any geographic-specific nuances. Where there is conflict between the content of the GN and the requirements of any applicable laws and regulations, the latter requirements should take precedence.

2. Introduction

- 2.1. The GN should be read in conjunction with the relevant sections in IVS¹. For the IVS effective 31 January 2025, these are the relevant sections:
- (i) IVS 100 Framework
 - (ii) IVS General Standards (IVS 100 to IVS 106)
 - (iii) IVS 210 Intangible Assets
- 2.2. This GN is structured into two main parts: the main guidance is in Sections 3 to 11, and explanatory comments in Appendix A. For Sections 3 to 11, the term “*should*” is used to indicate the valuer is expected to comply unless the valuer can demonstrate that alternative actions are sufficient. When the term “*may*” is used, valuers are responsible for considering those recommended guidance, and the application of such guidance in the valuation engagement will depend on the valuer’s professional judgement. Where there is any inconsistency between this GN and IVS, including where IVS uses “*must*” and this GN uses “*should*”, valuers are expected to comply with IVS, with this GN serving as a supplementary guidance.
- 2.3. Further explanations and examples (where applicable) for each section are provided within Appendix A. References to the term “should” in the explanatory comments are intended to reflect its plain English meaning and are not meant to convey the specific meaning assigned to it under IVS.
- 2.4. The GN makes references to IVS 210 Intangible Assets, which is structured around the following sections:
- (i) Overview
 - (ii) Introduction
 - (iii) Bases of Value
 - (iv) Valuation Approaches and Methods
 - (a) Market Approach
 - (b) Income Approach
 - (c) Cost Approach
 - (v) Special Considerations for intangible assets
 - (a) Discount Rates/Rates of Return for intangible assets
 - (b) Intangible Assets Economic Lives
 - (c) Tax Amortisation Benefit (“TAB”)
- 2.5. The identified nine (9) Focus Areas builds on the foundational principles and structure of IVS 210 by providing additional guidance in the following sections:
- (i) IVS 210 Introduction:
 - (a) Characteristics of intangible assets and the environment in which they are utilised;
 - (b) Risk factors of intangible assets; and
 - (c) Determining whether to value the subject intangible asset as a standalone asset or grouped with other assets (including other intangible assets).
 - (ii) IVS 210 Valuation Approaches and Methods, specifically on Relief-from-Royalty method under Income Approach:
 - (a) Determining a hypothetical royalty rate for intangible assets valuation.

¹ The International Valuation Standards (IVS) are subject to periodic updates. In the event of significant changes, additional considerations or revisions to this GN may be introduced to ensure continued alignment with the latest standards.

- (iii) IVS 210 Special Considerations for intangible assets:
 - (a) Determining the economic lives of intangible assets.
 - (iv) Additional analysis/disclosures within Intangible Assets Valuation Report
 - (a) Performing sensitivity and/or scenario analysis;
 - (b) Performing corroborative analysis for intangible assets valuation;
 - (c) Disclosure of subsequent events post the valuation date; and
 - (d) Additional report disclosures when performing intangible assets valuation.
- 2.6. It is recognised that the guidance provided cannot encompass every possible scenario or circumstance. Consequently, valuation professionals should always consider the specific facts and circumstances of each individual assignment when forming their valuation judgements.

3. Characteristics of intangible assets and the environment in which they are utilised

- 3.1. IVS 2025 states that “an intangible asset is 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”².
- 3.2. IVS 2025 further states that “intangible assets are defined and described by their characteristics such as their ownership, function, market position and image. These characteristics differentiate intangible assets from one another”. In addition to the characteristics of the intangible assets, the environment in which the intangible assets are used also influence their earnings capability and risk profile.
- 3.3. In performing a valuation of intangible assets, these intangible assets characteristics should be assessed together with the environment in which they are utilised. This assessment should be used as a starting point for the intangible asset valuation, specifically in the risk assessment, which will impact the selection of approach and / or inputs used in the valuation.
- 3.4. The ownership, function, market position, image and all other characteristics of the intangible asset should be assessed and considered collectively within the four (4) categories – legal, technological, functional and economic characteristics. It is important to note that not all intangible assets will exhibit all four (4) categories of characteristics. For example, legal, technological, and functional characteristics may not be as relevant as economic characteristics for relationship-based intangible assets.
- 3.5. Legal characteristics relate to the legal rights and protections that govern the ownership of the intangible asset such as scope and strength of the legal rights, exclusivity of rights conferred, renewal provisions. They also include whether the ownership is direct or indirect, whether ownership vests in multiple parties, the method by which ownership is granted, i.e. whether ownership is automatic or requires examination by appropriate body and whether ownership is transferable.
- 3.6. Technological characteristics relate to its innovativeness, scalability, compatibility and dependency. Innovativeness is the ability to introduce new ideas or methods that offer novel solutions or advancements to existing alternatives. Scalable intangible assets are those that can handle increasing demand without requiring significant capital investment. Compatible intangible assets are those that can integrate or function seamlessly with existing systems, technologies, or standards. Dependency describes the extent to which an intangible asset relies on other assets, technologies, or external conditions for its functionality, effectiveness, or value generation.
- 3.7. Functional characteristics relate to the ability to perform its intended purpose. The specifications of the intangible asset, e.g. technical features, process steps and methodology contribute to the functional characteristics.
- 3.8. Economic characteristics relate to the intangible asset's ability to generate future economic benefits, which includes both revenue generation and cost saving potential. These characteristics arise from the market position, market reputation, image and the manner in which the intangible asset is monetised. This ability to generate economic benefits is dependent on the

² International Valuation Standards (IVS) Effective January 2025, IVS 210 Intangible Assets para 20.01

intangible asset's unique legal, technological and functional characteristics, the owner's strategy for the intangible asset and the competitive environment.

- 3.9. These characteristics should be assessed together with the environment in which they are utilised which includes:
- (i) Competitive environment. The size of the market for intangible assets, availability of realistic alternatives, number of competitors, barriers to entry, presence (or absence) of switching costs.
 - (ii) Importance of the individual subject intangible asset to the owner. Whether the individual subject intangible asset is a key factor of differentiation from competitors, the importance it plays in the owner's marketing strategy, its relative importance compared with other tangible and intangible assets, and the amount the owner spends on creation, upkeep and improvement of the subject asset. It may also influence the determination of whether the intangible asset should be valued separately or grouped with other assets. See Section 5.2 for other considerations in determining whether the intangible asset should be valued separately or grouped with other assets.
 - (iii) Life cycle of the subject intangible asset. The expected economic life of the subject intangible asset and any risks of the individual subject intangible asset becoming obsolete. See Section 7 for factors in determining the economic life of the subject intangible asset.

4. Risk factors of intangible assets

- 4.1. In assessing the risks for an intangible asset, the valuer should (i) identify risks; (ii) assess the significance of the identified risks and (iii) consider the identified risks in the valuation.

Identifying risks for an intangible asset

- 4.2. In identifying the risks for an intangible asset, the valuer should consider the risks associated with the characteristics of the intangible asset and the environment in which they are utilised. See Section 3.5 to 3.9 for guidance on the characteristics of intangible assets and the environment in which they are utilised.

- 4.3. The valuer should consider the following types of risks:

i. Legal

Legal risks relate to the risk associated with the protection of the intangible asset, which encompasses its jurisdictional coverage, enforceability and possible infringement. Regulatory and compliance risks are also important where changing laws and regulations may impose new restrictions that could affect the use of the intangible asset.

ii. Technological

Technological risks relate to the possibility that the technology may become obsolete due to the advent of newer, more advanced alternatives. The intangible asset might also face scalability challenges if the underlying technology cannot accommodate growing demand or broader applications. Additionally, there are compatibility risks if the technology does not integrate well with existing systems, as well as security risks from potential cyber threats. Dependency risks can also arise from the intangible asset's reliance on external vendors, platforms, or technologies for its functionality.

iii. Functional

Functional risks relate to the emergence of new competing intangible assets which could replace the subject intangible asset's function, including availability of alternatives that could serve the same function. This also includes the risk that the owner or operator of the intangible asset may not invest adequately in capital expenditure to maintain the intangible asset's operational efficiency and its potential for continued use over time.

iv. Economic

Economic risks relate to the risk that the intangible asset may fail to deliver the anticipated financial returns. This could result from various factors, including but not limited to insufficient demand due to the market not developing as expected or a downturn in the demand for products or services that utilise the intangible asset, as well as the introduction of new competing intangible assets.

- 4.4. If the valuer does not possess all of the necessary technical skills, experience and knowledge to identify the risks, it is acceptable for the valuer to seek assistance from a specialist to identify certain risks, providing this is agreed and disclosed. When a specialist or service organisation is used, the valuer must obtain an understanding of the process and findings to establish a reasonable basis to rely on their work based on the valuer's professional judgement.

Assessing the significance of the identified risks for an intangible asset

- 4.5. Based on the identified risks of the subject intangible asset, the valuer should assess the significance of these risks.
- 4.6. Some identified risks may be more significant than others. Significant risks are risks whose impact on the valuation could, in the professional judgement of the valuer, greatly impact the resultant value. It is important to perform risk assessment to uncover significant risks which may impact the intangible asset, and to consider such risks in the valuation.
- 4.7. The significance of the identified risk should be analysed taking into consideration, amongst others, inherent and external factors and mitigating controls, as detailed below:
- i. Inherent factors. Relates to the intrinsic characteristics or elements that exist within the intangible asset.
 - ii. External factors. Relates to the environment in which the intangible asset is utilised, which is typically beyond the owner or operator's direct control.
 - iii. Mitigating controls. The owner or operator of the intangible asset may put in place risk controls to mitigate the risks associated with the intangible asset. The presence and extent of the controls is related to the importance of the intangible asset to the owner or operator. A more important intangible asset, such as an intangible asset that is a key driver of the business, may be prioritised and controls may be put in place to reduce the risk of disruption to the intangible asset's use and monetisation.
- 4.8. The valuer should overlay the considerations for each of the above components in assessing the significance of the identified risk. A risk matrix may be adopted to aid the risk assessment process.

Considering the identified risks in the valuation

- 4.9. The valuer should consider the identified and assessed risks in the selection of the valuation approach. If there is substantial risk associated with the asset's ability to generate those cash flows, such as commercialisation or development risk, the valuer may consider other approaches or methods to take into account the risks appropriately.
- 4.10. The valuer may also adjust the inputs used in the valuation, which include but are not limited to:
- i. Cash flows. The risk associated with the intangible asset can be factored into the cash flows by (i) the selection of the type of cash flows – contractual or promised cash flow; single most likely set of cash flows; probability-weighted expected cash flows or multiple scenarios of possible future cash flows; (ii) adjusting the assumptions underpinning the cash flows e.g. financial metrics such as revenue growth rates, cost and profit margins as well as non-financial metrics such as period of development of the intangible asset.
 - ii. Discount rate. Since single intangible assets generally have more risk than a group of assets or the business as a whole, the valuer may adjust for the identified risks in the discount rate by analysing the relative importance and contribution of the intangible asset relative to the other assets contributing to the value of the business.
 - iii. Economic life. There is a need to factor in the obsolescence rate and/or lack of legal protection or changes in regulations. See Section 7.2 to 7.8 for guidance on how these factors affect the determination of the economic life.

- 4.11. In considering the risks in the valuation of an intangible asset, care must be taken to ensure the discount rate is consistent with the cash flows selected. For example, if conditional cash flows which are conditional on certain future events are utilised, the discount rate should consider the appropriate risk adjustments associated with such cash flows. Care should also be taken to avoid the double counting of risks in the valuation. For example, the risk should not be incorporated in both the cash flows and discount rate if the income approach is adopted to value an intangible asset.

5. Determining whether to value the subject intangible asset as a standalone asset or grouped with other assets (including other intangible assets, where applicable)

- 5.1. IVS 2025 states that intangible asset valuations are performed for a variety of intended uses. It is the valuer's responsibility to understand the intended use of a valuation. It is also the valuer's responsibility to understand whether intangible assets should be valued separately or grouped with other assets³.
- 5.2. In determining whether to value an intangible asset separately or grouped with other assets, the valuer should consider the context of the intended use and basis of value, together with the characteristics, risk profile and environment in which the intangible asset is utilised. The following considerations can be considered collectively or individually:
- i. Purpose of valuation and the specific legal/regulatory requirements. Depending on the purpose of the valuation, consider if there are legal, statutory, and regulatory or other authoritative requirements requiring standalone valuation. If there are no such requirements, there is flexibility to perform grouping with other intangible assets. For example, a bundle of patents may be grouped and valued as a single technology-related intangible asset for financial reporting purposes. However, distinct valuation of the underlying intellectual property rights (IPR), e.g. individual patent, copyrights for specific works, may be required for transactions, licensing or legal disputes. Additional references from other guidance may be referenced in conjunction to this GN to determine whether an intangible asset should be valued as a standalone or as a group. For example, financial reporting standards permit recognition of a group of complementary intangible assets as a single asset if they share similar useful lives.
 - ii. Basis of value and premise of valuation. If the basis and premise of value is best reflected by utilising the intangible asset separately instead of being grouped with other assets, then consider performing the valuation separately. For example, if the asset's value is maximised when used independently, such as when a specific patent's highest and best use is licensing the technology to other industries and generating royalty income, then a separate valuation may be appropriate. Conversely, if a group of patents is collectively used in the company's own product line and their value is best realised together, group valuation may be more suitable.
 - iii. Distinct and identifiable characteristics. Generally, for an intangible asset to be distinct and identifiable, it can be separated from other assets, have a unique proposition, a separate economic benefit and can function or be used independently. If the intangible asset is distinct, identifiable, and can be used independently, it leans towards separate valuation. If the intangible asset is not distinct, identifiable, and its use and function is integral to other intangible assets, consider performing a group valuation. For example, a corporate trademark that spans multiple product lines typically warrants standalone valuation as it represents a broader brand identity and economic benefit on its own. In contrast, a product trademark and their associated patents may be more appropriately valued together as a group reflecting their combined contribution to the product's economic benefit.
 - iv. Standalone owner strategy. Where the owner of intangible asset has a strategic plan to monetise or invest and enhance the intangible asset independently of other intangible assets, it leans towards separate valuation.

³ International Valuation Standards (IVS) Effective January 2025, IVS 210 Intangible Assets para 20.11

- v. Independent and distinct risk profile. Generally, where the intangible asset possesses a unique set of risks that can be independently evaluated and managed, separate from other assets, it leans towards separate valuation. Conversely, where the risks are similar or intertwined with those of other assets, such as operational dependencies, strategic alignment, financial interconnections, or reputational impacts, grouping may be more appropriate.
 - vi. Normal market practice. If there are comparable market transactions which indicates sale of standalone assets (instead of a portfolio), it leans towards separate valuation.
 - vii. Significant contribution. If the intangible asset significantly contributes to a business or asset group, it is likely that the intangible asset worth is substantial enough to warrant a separate valuation.
- 5.3. When an intangible asset is assessed to be valued as a group of assets (including other intangible assets), the valuer should determine if the intangible assets in question are:
- i. Similar in nature whereby the intangible assets have comparable characteristics or support the same product or service.
 - ii. Interdependent whereby a group of intangible assets that are mutually dependent to fully maximise potential economic contributions.
 - iii. Complementary in function whereby a group of intangible assets that are not mutually dependent, but when used together enhances the potential economic contributions.
- 5.4. In performing the valuation of intangible assets that are similar in nature, interdependent, or complementary, the valuer should assess the identified economic benefits and risks. This assessment may influence the adjustments to valuation inputs:
- i. Cash flows: The valuer should evaluate the cash flows appropriately based on the relationships among the assets.
 - ii. Discount rates: The valuer should apply discount rates that reflect the relevant risk characteristics of the assets, considering whether a single rate applied to all intangible assets or adjusted rates taking into account the combined risk profile is appropriate.
 - iii. Economic life: The valuer should evaluate the economic life of each asset by considering the degree of reliance or influence among their useful lives.

6. Determining a hypothetical royalty rate for intangible assets valuation

- 6.1. IVS 2025 states that one of the steps a valuer should perform in applying a relief-from-royalty method is to develop a royalty rate for subject intangible asset.
- 6.2. There are three common methods that can be used to derive a hypothetical royalty rate.
- i. The first is based on market royalty rates for comparable or similar transactions. The transactions may also relate to the subject intangible asset itself. A prerequisite for this method is the existence of comparable intangible assets that are licenced at arm's length on a regular basis.
 - ii. The second method is based on the split of profits that would hypothetically be paid in an arm's length transaction by a willing licensee to a willing licensor for the rights to use the individual subject intangible asset.
 - iii. The third method assumes a hypothetical return on costs (such as Research and Development ("R&D") costs). This approach estimates the hypothetical royalty rate by determining how much money was spent on the development of the intangible asset and add to that a return on costs.

Comparable or Similar Transactions method

- 6.3. In deriving a hypothetical royalty rate based on comparable or similar transactions method a valuer should undertake the following steps in analysing the identified list of comparable or similar transactions, such as licensing agreements:
- i. Understand the terms of the licensing agreements, subject to the availability of information.
The terms of licensing agreement would include but are not limited to:
 - (a) Specific rights transferred to the licensee and any limitations:
 - Scope rights;
 - Territory;
 - Exclusivity;
 - Duration of the licence period;
 - Termination clauses;
 - Technical assistance;
 - Fields of use;
 - Sublicensing;
 - Improvements and derivatives, and
 - Restrictions.
 - (b) The payment structures:
 - Minimum guarantees;
 - Upfront payments;
 - Performance milestone payments;
 - Royalty rate on gross or net sales;
 - Puts/calls to acquire the licenced property outright; and
 - Royalty rate structure.
 - ii. Analyse the differences between the identified comparable licensing agreements and how such differences affect their royalty rates. For example, a global licence may warrant a higher royalty rate than one limited to a narrower region.

- iii. Where applicable, make adjustment to the observed royalty rate in relation to the specific rights of the intangible asset, external environment as of valuation date, and cash flows applicable to the intangible asset.
 - (a) Where the scope of the subject intangible asset is observed to be less advantageous than that of the comparable licensing agreements, it may justify applying a lower royalty rate.
 - (b) If the external environment pertaining to the intangible asset as of the valuation date is observed to be more advantageous than that of the dates of the comparable licensing agreements, it may warrant applying a higher royalty rate.
 - (c) For the varying payment structures, the valuer should ensure that the estimated royalty rates are adjusted to be consistent with the cash flows. In the event where the cash flows for the subject intangible asset have not been adjusted to account for payment structures observed in the comparable licensing agreement, the royalty rate will need to be adjusted to reflect these differences. Conversely, if the cash flows have been adjusted to factor in the payment structures observed in the comparable licensing agreement, the royalty rate can be utilised without further modification from the observed royalty rate.

Profit Split Method

- 6.4. Business income is derived from the utilisation of several asset classes (e.g. working capital, fixed assets, workforce, and intangible assets). Profit split analysis intends to split (or allocate) some measure of business income and assign that allocated income to the intangible assets.
- 6.5. When determining a royalty rate using the profit split method, a valuer can consider the following methods:
 - i. Comparable Profit Split. This method analyses profit splits in comparable agreements within the same industry for similar types of intangible assets. Adjustments are made for differences in terms and conditions, and the profit split ratio from comparable are used as a benchmark to determine the royalty rate.
 - ii. Asset Class Split Method: This method determines a royalty rate by allocating excess profits to each intangible asset based on its respective economic contribution, determined by the invested capital and its required rate of return.
 - iii. Premium Contribution Method: In this approach, the royalty rate is determined by assessing the additional premium contributed by the intangible asset in terms of average selling price, operating profit, incremental income stream.

Return on Costs Method

- 6.6. In determining the hypothetical royalty rate using the return on costs method, the key steps are:
- i. Determine the total costs (such as R&D) associated with the intangible asset.
 - ii. Determine the costs' appropriate returns, reflecting the compensation that would be required for investing in the intangible asset which accounts for the following components of return:
 - (a) Return of costs
 - (b) Return on costs
 - iii. To determine the hypothetical royalty rate as a percentage of revenue, the total of both the return on and return of costs should be divided by the total projected revenue expected to be generated by the intangible asset over its economic life.

Supplementary factors

- 6.7. In determining a hypothetical royalty rate, the valuer should consider all relevant factors appropriate for the valuation purpose, along with the characteristics of the intangible asset and the environment in which it is utilised. In addition to those considerations, the following supplementary factors may also be considered for specific purpose and/or intangible asset:
- i. Georgia-Pacific factors. A structured framework which is typically used to guide a hypothetical licensor–licensee negotiation to support a reasonable royalty rate for calculating damages in patent litigation.
 - ii. Functional analysis. An evaluation of functions performed, assets employed, and risks assumed across the intangible asset value chain to allocate residual profits to the subject intangible asset and support determination of the royalty rate, especially in transfer pricing settings.
 - iii. Factor model. A criteria-based rating and weighting approach, typically applied to technology-related intangible assets, that scores characteristics of the subject intangible asset and environment in which it is utilised to support selection within a royalty rate range.
 - iv. Royalty stacking. An assessment of the aggregate royalty rate from multiple necessary intangible assets, particularly in complex technology products and services, to adjust the subject intangible asset's royalty rate for its relative contribution.
- 6.8. Where authoritative literature, industry standards, or regulatory references exist regarding royalty rates applicable to the subject intangible asset and purpose, the valuer should refer to and consider these sources in determining an appropriate royalty rate.

7. Determining the economic lives of intangible assets

- 7.1. Economic life is how long it is anticipated that the intangible asset could generate financial returns or provide a non-financial benefit in its current use. It can be finite or indefinite.
- 7.2. Unless otherwise affected by the functional, technological or economic obsolescence, the economic life of an intangible asset should generally commensurate with that of the period of the contractual or other legal rights, because upon the expiry of the legal protection, the intangible asset becomes vulnerable to imitation or replication in the market, which can significantly diminish its value and the financial returns it generates.
- 7.3. In determining the period of the contractual or other legal rights, valuer should consider the following:
 - i. Legal protection period
 - ii. Contractual term associated with the use of the intangible asset
 - iii. Ease of renewal of such protection period or contractual terms
- 7.4. When the contractual or other legal rights that are conveyed for a limited term can be renewed, the economic life of the intangible asset should include the renewal period(s) only if there is evidence to support renewal by the entity is both likely and economically feasible.
- 7.5. If the intangible asset is affected by functional, technological, or economic obsolescence prior to the expiry of the period of contractual or other legal rights, the economic life of the intangible asset should be shorter than that of the period of contractual or other legal rights.
- 7.6. In assessing the impact of functional, technological and economic obsolescence on the economic life, valuers should consider the following non-exhaustive list of factors:
 - i. Functional. When there is loss of utility resulting from ineffectiveness and inefficiencies in the subject intangible asset's characteristics such as its design, specifications as compared with its replacement.
 - ii. Technological. When a technology, product, or service becomes outdated or no longer useful due to advancements in technology.
 - iii. Economic. When there are changes in the economic environment, market conditions and other external influences that negatively impact the intangible asset's ability to generate income or maintain its value.
- 7.7. However, there may be exceptions whereby the period of contractual or other legal rights is not a key consideration to determine the economic life:
 - i. When certain intangible assets may not have a defined period of legal rights such as non-contractual customer relationships which are not granted any legal protection.
 - ii. When certain intangible assets may be protected through other legal mechanisms such as common law which do not grant a defined period of legal or contractual rights. For example, unregistered trademarks which may be protected through common law but do not have a legally mandated duration or expiration.

- iii. When the intangible asset is so unique that it is difficult to replicate, or even if there are imitations or replications, the intangible asset continues to maintain its value and relevance.
- 7.8. In assessing the economic life for such intangible assets, the key consideration for the valuer should be the functional, technological and economic obsolescence of the intangible asset.

Difference between economic life, accounting useful life and tax amortisation period

- 7.9. Accounting useful life is the period over which an asset is expected to contribute directly or indirectly to future cash flows of that entity. Hence, accounting useful life is an entity specific determination. There may be a difference between accounting useful life and economic life, when an entity's own assumptions about the period over which the asset is expected to contribute directly and indirectly to the future cash flows is different from the assumptions market participants would use in pricing the asset.
- 7.10. Tax amortisation period is determined by the prevailing tax regulations, which is different from the economic life of the intangible asset.

Conditions in determining if the economic life is indefinite

- 7.11. To determine if an intangible asset has an indefinite life, the following conditions should be met:
- i. The individual subject intangible asset is well-established with historical track record of generating economic benefits;
 - ii. There are no legal, regulatory, contractual, competitive, economic or other factors that limit the economic life of the individual subject intangible asset; and
 - iii. The individual subject intangible asset has renewal cost, maintenance costs which are economically beneficial compared to the expected economic benefits and there is intention to renew and use the individual subject intangible asset indefinitely.

Corroborating the appropriateness of the determined economic life

- 7.12. The valuer can corroborate the appropriateness of the economic life of the subject intangible asset determined through the following non-exhaustive list of procedures:
- i. Benchmark economic life of similar intangible assets.
 - ii. Analyse economic life of previous versions of the subject intangible asset.
 - iii. Compare the economic life of the intangible asset to the life cycle of the goods and services produced with the intangible asset input.
- 7.13. When performing the corroborative analysis on the economic life, the valuer should explain the differences between the subject intangible asset and these other assets used for corroborative analysis in order to substantiate the determined economic life.

8. Performing sensitivity and/or scenario analysis for significant risks

- 8.1 Sensitivity analysis involves changing one input or variable at a time to measure its impact on the valuation outcome, while keeping all other factors constant.
- 8.2 In contrast, scenario analysis involves changing multiple inputs simultaneously for each potential future state or scenario to evaluate the combined impact on the valuation.
- 8.3 The valuer may consider performing sensitivity and/or scenario analysis under the following non-exhaustive circumstances:
 - i. High levels of uncertainty surrounding key valuation input(s).
 - ii. Change in input(s) results in a significant variation in intangible asset value.
- 8.4 The valuer may follow the following general procedures when conducting sensitivity analysis:
 - i. Based on the significance of risks identified through the risk matrix in Section 4: Risk Factors of Intangible Assets, identify the most critical input that would impact the valuation of the intangible asset.
 - ii. Determine the range of the identified input to be sensitised. The valuer should not employ arbitrary sensitivity ranges but should instead consider the risk associated with the input in determining the possible range of the input by referencing to historical data, market trends, or industry benchmarks.
 - iii. Adjust the identified input within its determined range to evaluate its effect on the valuation of the intangible asset.
- 8.5 In contrast, the valuer may follow the following general procedures when conducting scenario analysis:
 - i. Based on the significance of risks identified through the risk matrix in Section 4: Risk Factors of Intangible Assets, identify different potential future states or scenarios that would impact the valuation of the intangible asset.
 - ii. Identify the key inputs likely to change within each scenario, including consideration of:
 - (a) Forecast drivers such as growth rate, profit margins, and investments required.
 - (b) Valuation inputs including royalty rate, obsolescence factor, discount rate, and terminal growth rate.
 - (c) Probability assignments which is applicable for multiple scenario analysis or decision tree method (as per next step).
 - iii. Utilise methods such as:
 - (a) Best case/worst case analysis. Evaluates the impact on value under extreme positive and negative assumptions to understand the range of potential outcomes.
 - (b) Multiple scenario analysis. Assess various plausible scenarios by adjusting key drivers and assigning probabilities to these scenarios to understand the spectrum of possible impacts on value.

- (c) Decision tree analysis. A decision tree systematically evaluates different possible decisions and uncertainties by mapping them as branches in a sequential process. Each branch represents a potential scenario, with assigned probabilities and corresponding payoffs. By incorporating probabilities and expected values, decision trees provide a quantitative way to assess risks and rewards, making them particularly useful for analysing complex, multi-stage scenarios.

9. Performing corroborative analysis for intangible assets valuation

- 9.1 If the value of a subject intangible asset relies heavily on a single valuation approach and no secondary valuation approach can be performed, a corroborative analysis may be performed to assess the appropriateness of the valuation subject to the availability of information or data points. A corroborative analysis is not meant to be an alternate nor secondary valuation approach or method to determine the value of intangible assets. Corroborative analysis may be performed depending on the purpose of the valuation where appropriate.
- 9.2 A corroborative analysis refers to the process of using multiple sources of information or methods to support the concluded value. This type of analysis is often used to increase the reliability and validity of results by cross-verifying information from different alternate perspectives. The goal of corroborative analysis is to ensure that the conclusions drawn are well-supported and less likely to be biased or erroneous.
- 9.3 To corroborate an intangible asset's value, the valuer can consider adopting a "drill-down" analysis or benchmarking analysis. The drill-down analysis involves analysing broader indicators/metrics (industry level) before drilling down to more detailed levels (company level and asset level) whereas benchmarking analysis involves comparing the indicators/metrics across comparable companies or transactions. The following indicators/metrics at the respective levels can be considered:
- i. Industry level metrics, such as different types of market sizes that the intangible asset can capture.
 - ii. Company level metrics, such as the value of the business owning/using the intangible asset.
 - iii. Intangible asset level metrics, such as intangible asset expenditures or investments which are made to develop and protect the intangible asset. This metric does not represent the value of the intangible asset, which should be determined using a primary valuation approach.
- 9.4 There are various approaches that can be considered when performing a corroborative analysis, and the choice of method should be guided by the specific purpose and intended use of the valuation. The following are examples of methods that may be used. The selection, application, and interpretation of reference points should always be tailored to the facts and circumstances of the engagement, and valuers should exercise professional judgement in determining the most appropriate method for each situation.

Method 1: Relative positioning of subject intangible asset value versus industry/company/intangible asset level metrics

- 9.5 This method involves assessing the reasonableness of the concluded intangible asset value by comparing it to a range of external reference points at different levels, industry, company, and asset-specific. The aim is to provide context for where the subject intangible asset value stands relative to broader market and business indicators.
- 9.6 This method involves selecting relevant industry/company/intangible asset level metrics and where necessary, performing adjustments to reflect the relevant revenue or income contributions achievable by the business unit which utilises the intangible asset in its product and/or services.
- i. Industry level metrics represent the broadest (or ceiling) measure of possible value because it represents the maximum potential that the entire market (including the subject

intangible asset) could possibly achieve over a defined period. It reflects the aggregate demand from all potential customers in the market and is often used as a key metric to gauge the potential for businesses operating within that space. Given that it is the broadest form of measure, it is useful for an intangible asset that either is a key market player or contribute to a significant market share in the industry. It should not be the only metric that is adopted when performing the corroboration.

- ii. Company level metrics represents the business value for all employed assets (including the subject intangible asset) because it encapsulates the collective worth of all the assets, both tangible and intangible, and their synergistic potential within the business context. It is therefore expected that the business value will be higher than that of the subject intangible asset value.
- iii. Intangible asset metrics typically represents the floor value as it reflects the level of expenditure or investment that the company has consistently dedicated to develop, maintain and enhance the intangible asset. Generally, the key expenditure or investment which is the most significant component of cost in developing the intangible asset is used, e.g. advertising and promotion (A&P) cost for trademark and research and development (R&D) cost for technology. Any functional, technological or economic obsolescence that might reduce the value of historical investments should also be considered.

Method 2: Peer benchmarking of subject intangible asset against comparable companies or transactions via units of comparison

- 9.7 This approach involves assessing the reasonableness of the concluded intangible asset value by benchmarking it against comparable companies or transactions using selected units of comparison. Peer benchmarking provides a pragmatic way to gain directional insights by comparing ratios such as intangible asset value to business value or to asset-level metrics (e.g., R&D cost, A&P cost, customer acquisition cost). This method offers context on where the subject intangible asset stands relative to similar businesses.
 - i. Identify the units of comparison that are relevant to the subject intangible assets, such as intangible asset value/business value; intangible asset value/intangible asset level metric such as R&D cost, A&P cost, customer acquisition cost.
 - ii. Search for comparable/benchmark data: The process involves searching for comparable companies within the same industry and/or business that have similar intangible assets and calculate the relevant units of comparison.
 - iii. Perform benchmarking analysis: This analysis compares the relevant units of comparison
- 9.8 After performing the above steps, rationalise the intangible asset value's relative positioning against the corroborated values by considering the characteristics and risk factors of the intangible assets, including but not limited to the following (non-exhaustive):
 - i. Growth potential
 - ii. Regulatory environment
 - iii. Financial performance
 - iv. History of investment
 - v. Life cycle of the intangible asset

10. Disclosure of subsequent events post the valuation date

- 10.1. IVS 101 requires the valuation date to be stated. If valuation date is different from the date on which the valuation is reported, then that date should also be stated.
- 10.2. There may be events that occur between the valuation date and the issuance date of the valuation report. Disclosure of such events, whether identified through discussions with management or obtained from other relevant sources, enables users of the report to assess potential changes to the value of intangible asset from the valuation date, thereby allowing them to make more informed decisions for purposes such as financing and investing.
- 10.3. From the valuation date to the report date, disclosure of significant developments that are not known or knowable as of the valuation date which may impact the intangible asset value may be included in the valuation report. These events may be company-specific and/or external events (relates to the environment in which the intangible asset is utilised) that are considered to be significant following the risk assessment performed by the valuer.
- 10.4. The above disclosure is not intended to update the valuation to reflect such subsequent events, as the valuation was performed as of a point in time and the events occurring subsequent to the valuation date would not be relevant to the value determined as of the valuation date. Therefore, the valuer may also include a statement and disclose that such events are provided for information purposes only and do not affect the determination of intangible asset value as of the specified valuation date.

11. Additional report disclosures when performing intangible assets valuation

- 11.1. IVS 106 states that valuation reports must provide, in sufficient detail, a clear and well-structured description of the basis for the conclusion of value. The reports should include all necessary information to provide the client with a clear description of the scope of work, the work performed, professional judgements made and the basis of conclusions reached.
- 11.2. Valuer may provide additional disclosures where appropriate:
- i. Key risks associated with intangible asset: Specifically, the types of these significant risks and a description of the risks. For significant risks that underpin the valuation, valuers should demonstrate how these significant risks have been given due consideration and weight.
 - ii. Sensitivity/scenario analysis: Outcome of sensitivity and scenario analysis for significant and/or material risks.
 - iii. Corroborative analysis: Outcome of the corroborative analysis to support the concluded value.
 - iv. Subsequent events: Events that occur between the valuation date and the date on which the valuation report is issued.

Appendix A: Explanatory Comments

This appendix is an integral part of the guidance note.

3. **Characteristics of intangible assets and the environment in which they are utilised**

- A3.1 Understanding the characteristics of intangible assets and their operating environment is crucial for several reasons. These assets drive competitive advantage and value creation, influencing strategic planning and investment decisions. Market dynamics, globalisation, and technological changes impact their value and utility, requiring companies to adapt and innovate. Efficient resource allocation, legal protection, and effective risk management are essential due to the significant investments and unique risks associated with intangible assets. Proper valuation and reporting are crucial for financial reporting, taxation, and transactions. This requires a comprehensive understanding of these assets and the application of suitable valuation methods.
- A3.2 It is important for valuers to understand how the legal, technological, functional and economic characteristics of the intangible asset, including the ownership, function, market position and image, affect the value of the intangible asset.

Legal characteristics

- A3.3 The legal characteristics of an intangible asset, including ownership (including but not limited to licensor or licensee), relate to the legal rights associated with the intangible asset which enable the owner to protect, control and generate future economic benefits from the intangible asset, which affect the share of economic returns and value of the intangible asset.
- A3.4 In understanding the legal characteristics associated with the intangible asset, it is important to understand whether the intangible asset can be legally protected. Certain intangible assets, such as non-contractual customer relationships, may not be legally protected, while other intangible assets, such as data, trade secrets and patents, can be protected by law. Intellectual property is a specific subset of intangible assets that can be protected by law.
- A3.5 The considerations relating to the legal characteristics of intangible assets include, but are not limited to:
- i. Scope and strength of the legal rights which underpin the intangible asset. The scope of legal rights defines the boundaries of how an intangible asset can be used, which includes the jurisdiction in which the intangible asset can be used, the class of products or services it can be applied to and the duration over which the intangible asset is protected. The strength of these rights refers to the legal enforceability of these rights, which is crucial in protecting the asset from infringement or unauthorised use. A broader scope opens up more markets and monetisation opportunities for the intangible asset, and stronger legal rights reduce competition, enhancing the intangible asset's income-generating potential and making the intangible asset more attractive as an investment or collateral.
 - ii. Exclusivity of rights. The nature of the rights is determined by the legal provisions underpinning the intangible assets such as licences, contracts and agreements and can be exclusive or non-exclusive. Exclusivity refers to the owner's or operator's ability to restrict others from using the intangible asset without permission, while non-exclusivity allows for potential use by other licensees. This exclusivity or non-exclusivity may be defined by jurisdiction, the class of products or services, and the duration of rights. With exclusive

rights, there is limited market competition, enabling the intangible asset to generate a higher return than if it did not have exclusive rights.

- iii. Method by which ownership is granted. Ownership of intangible assets can be granted automatically, as in the case of copyright, or require examination and approval by an appropriate body, such as patents. This affects the time, cost, and certainty of obtaining and maintaining legal rights. Intangible assets that require examination for ownership rights, like patents, often provide stronger protection and exclusivity, translating into higher potential economic benefits.
- iv. Renewal provisions for the rights. Renewal provisions determine how and under what conditions the legal rights associated with an intangible asset can be extended. The ability to renew legal rights extends the duration over which economic benefits can be derived from the intangible asset. This is particularly relevant for assets where legal protection is time-bound. For example, trademarks may potentially have indefinite lives if they continue to generate economic benefits, and renewal and maintenance costs, amongst other factors, are minimal compared to the expected economic benefits.
- v. Direct or indirect ownership of the rights. Direct ownership is where an entity owns the intangible asset outright and has full legal title to the intangible asset. Indirect ownership is where the entity has a licence or other right to use the asset. The distinction is crucial in determining how the asset can be exploited, transferred, or used as collateral. Direct ownership grants the owner complete autonomy over how the intangible asset is used, licenced or sold and allows the owner to enjoy all economic benefits derived from the monetisation of the intangible asset. Therefore, direct ownership of the intangible asset may be perceived as more valuable by investors and lenders due to the greater control and potential for revenue generation.
- vi. Transferability of rights. Transferability refers to the ability to sell, assign, or otherwise transfer ownership or rights associated with an intangible asset to another party. The ease of transferring these rights can significantly impact the intangible asset's value and marketability. Intangible assets with high transferability can attract more investors and potential buyers, as they can be easily sold or licensed to generate revenue. Conversely, intangible assets with restrictions on transferability may limit the owner's ability to monetise the intangible asset, potentially reducing its value.

Technological characteristics

- A3.6 The technological characteristics of an intangible asset relate to its relative level of technological advancement, which determines its capacity to generate economic benefits and consequently, affects its value. A technologically advanced intangible asset can provide the owner or operator a competitive advantage, by increasing revenue or reducing cost, enhancing the asset's economic benefits. The considerations relating to the technological characteristics of intangible assets include, but are not limited to:
- i. Innovativeness. Innovativeness is the measure of the intangible asset's ability to drive progress and create new opportunities in its respective field or industry. Innovative assets can command a premium in the market due to their potential to create new revenue streams, disrupt existing markets, or establish new standards. Their uniqueness and advancement over competitors can lead to a strong competitive position, attracting investment and enabling higher returns.

- ii. **Scalability.** Scalability refers to the ability of an intangible asset to handle increased levels of demand or to be applied across various contexts without a significant need for additional capital investment. Scalable assets are adaptable and can grow with the business, meeting expanding market needs efficiently. Scalable intangible assets are particularly valuable as they can lead to exponential growth in revenue with relatively low incremental costs. This scalability supports wider market penetration and can quickly multiply the economic benefits derived from the asset.
- iii. **Compatibility.** Compatibility refers to the ability of an intangible asset to integrate or function seamlessly with existing systems, technologies, or standards. It measures how well the asset can be adopted within current infrastructures or alongside other assets without requiring significant modifications or causing disruptions. Highly compatible intangible assets can significantly reduce integration costs and accelerate adoption rates, making them more attractive to potential users and partners. This ease of integration can expand the asset's market potential and enhance its value. Compatibility signals a lower barrier to entry for the asset's utilisation, potentially leading to quicker returns on investment.
- iv. **Dependency.** Dependency refers to the interconnectedness of the asset with broader systems or platforms and the potential risks associated with such dependencies. Intangible assets with high dependency may face risks related to the stability and availability of the assets or conditions they depend on, which can affect their reliability and income-generating potential. On the other hand, an asset that forms a critical dependency for other valuable systems or products can become indispensable, significantly enhancing its value. The level of dependency of intangible assets influences the intangible assets' resilience to changes in market or technological conditions and its future income-generating potential.

Functional characteristics

- A3.7 The functional characteristics of an intangible asset, such as the specifications of the intangible asset, enable the intangible asset to serve its intended purpose and generate economic benefits. The considerations relating to the functional characteristics of intangible assets include, but are not limited to:
- i. **Specifications of the intangible asset.** The specifications of the intangible asset, such as its technical features, process steps and methodology define the functionality of the intangible asset. The type of specifications may vary depending on the type of intangible asset.
 - ii. **Technical features of an intangible asset** refer to the specific technological attributes or capabilities that enable the asset to perform its intended functions. These can include software algorithms, engineering designs, or any other technical specifications that define how the asset operates.
 - iii. **Process steps** involve the sequence of actions or operations that an intangible asset utilises to achieve its intended outcome. This can relate to manufacturing processes, software development lifecycles, service delivery methodologies, or any systematic approach that the intangible asset employs.
 - iv. **Methodology** refers to the underlying principles or strategies that guide the development, use, or application of an intangible asset. This can encompass research methodologies, analytical frameworks, or any foundational concepts that the asset is based upon. Advanced technical features, well-defined process steps and robust and innovative methodology can significantly enhance the performance and efficiency of an intangible asset, making it more competitive and desirable in the market. This can lead to increased

adoption, higher sales, and the potential for premium pricing due to the ability to capture market share and generate substantial returns.

Economic characteristics

A3.8 The economic characteristics, including market position and image can affect the economic benefits generated by the intangible asset in the environment in which it is utilised, thereby affecting its value. The considerations relating to the economic characteristics of intangible assets include, but are not limited to:

- i. **Market position.** Market position represents the portion of a market controlled by a particular entity and its products or services, often directly attributable to an intangible asset such as a brand or proprietary technology. An intangible asset that has a higher market position can significantly enhance a company's ability to generate revenue. This is because a higher market position usually indicates a strong customer base, higher sales volumes, and potentially, the ability to command premium pricing. The dominance in the market can also provide a competitive edge, making it more challenging for new entrants or competitors to erode the company's position.
- ii. **Market reputation or image.** Reputation, often linked to brand strength or intellectual property such as trademarks, is an intangible asset's perceived value in the eyes of consumers, partners, and stakeholders. A strong reputation can lead to customer loyalty, allowing for consistent revenue streams and the potential for premium pricing due to the perceived higher value of the products or services offered. Additionally, a reputable brand can attract business partnerships, investment opportunities, and talented employees, all of which contribute to the company's income-generating potential.
- iii. **Monetisation strategy.** The approach to monetising an intangible asset is a critical economic characteristic that defines its value creation mechanism. Monetisation strategies can be direct, indirect, or based on forbearance of use:
 - (a) **Direct monetisation:** Direct monetisation of the intangible asset occurs when the owner of the intangible is also the operator, and therefore the intangible asset directly generates revenue (or reduces costs) for the owner/operator. For example, using a trademark to sell branded products allows the owner/operator to generate revenue from the use of the trademark.
 - (b) **Indirect monetisation:** When the owner licences the use of the intangible asset to a third-party operator, the intangible asset generates royalty income for the owner. In this strategy, the intangible asset contributes to revenue generation indirectly. For example, licensing a third-party to use the trademark which allows the licensee to generate revenue from sale of the branded products generates a royalty income stream for the owner.
 - (c) **Forbearance of use of intangible asset:** Owner/operator does not use the intangible asset but also does not allow any other party to use the intangible asset. Such use often involves a defensive use of the intangible asset, as it protects the income being generated by the owner/operator's other assets. For example, holding a patent but choosing not to produce the patented product can prevent competitors from entering the market, maintaining the owner's market position in related areas. This forbearance can be part of a broader competitive strategy to maximise the overall value of the company's asset portfolio.

- A3.9 Not all intangible assets will exhibit all four (4) categories of characteristics. Relationship-based intangible assets, such as customer relationships, primarily derive their value from economic characteristics, which encompass the revenue generation potential and the ability to drive repeat business. In contrast, legal characteristics are less relevant for relationship-based intangible assets because their value stems from the trust and loyalty established with customers, rather than ownership rights or patents. Similarly, functional and technological characteristics are also less relevant, as the effectiveness of the underlying relationships relies more on interpersonal connections than specific functionalities or technological features. Therefore, understanding the economic characteristics of such relationship-based intangible assets is essential for accurately assessing their value.
- A3.10 The above characteristics of intangible assets should be assessed together with the environment in which they are utilised, including the competitive environment, importance of the subject intangible asset to the owner and the life cycle of the intangible asset.

Competitive environment

- A3.11 The competitive environment encompasses various market dynamics and aspects that can significantly influence an intangible asset's ability to generate income. However, not all aspects described below will be equally relevant to every type of intangible asset. For example, regulatory frameworks and legal protections may be critical for patents and other intellectual property, while factors such as switching costs or the emergence of technological substitutes may be more pertinent for technology platforms or software. Conversely, some aspects such as market size or barriers to entry may have limited impact on certain relationship-related or artistic-related intangibles. Therefore, valuers should exercise professional judgement to determine which aspects are most applicable to the intangible asset being valued.
- A3.12 The competitive environment in terms of legal, functional, technological and economic aspects are as described below.

Legal aspect

- A3.13 The legal aspects of the competitive environment include the following:
- i. Regulatory framework for intangible assets: The legal landscape governing intangible assets includes a variety of laws and regulations that protect and define the rights associated with these assets across different jurisdictions. This regulatory framework can significantly influence the value and income-generating potential of intangible assets. For example, in jurisdictions where legal protections are weak or poorly enforced, the risk of infringement may be higher, which can erode the asset's exclusivity and diminish its potential income, thereby depleting the intangible asset's value and reducing its attractiveness as an investment or collateral. Conversely, jurisdictions with robust legal protections provide a secure environment for the asset's exploitation, which bolsters confidence in the consistent and reliable generation of economic benefits by the intangible asset and its value. Understanding the legal landscape in which the intangible asset operates is crucial for accurately assessing the potential risks associated with an intangible asset, which influence the intangible asset's ability to generate economic benefits and its value.
 - ii. Industry-specific regulations: Certain industries have industry-specific regulations which play a crucial role in shaping the value and utility of intangible assets, particularly in highly regulated sectors like technology, pharmaceuticals, and telecommunications. Regulatory approvals are often a prerequisite for bringing products associated with these assets to

market, and compliance with industry standards is essential for ensuring that products can effectively interact within a broader ecosystem. While such regulations can result in significant costs to obtain approvals and maintain compliance, they can also enhance the revenue that can be generated by these regulatory body-approved intangible assets and boost the attractiveness of the intangible assets as an investment or collateral. For example, regulations may require that patents be licensed on Fair, Reasonable, and Non-Discriminatory (FRAND) terms, which aim to promote widespread adoption of technology while balancing the rights of patent holders. While such terms can increase market penetration, they may also limit the profitability of the intangible asset, as patent holders must offer licences on the same terms to all parties. Understanding such industry-specific regulations aids valuers in assessing the cash flows that can be derived from the intangible asset, and therefore its value.

Technological aspect

- A3.14 The technological aspects of the competitive environment include the following:
- i. **Rate of technological change:** The rate of technological change refers to the speed at which new technologies are developed and existing technologies are improved or become obsolete. The rate of technological change affects the intangible asset's lifespan and relevance. Rapid technological change can quickly reduce the demand for an intangible asset if it becomes outdated, reducing its value and attractiveness as an investment or collateral. For example, the demand for a proprietary software platform may reduce if a new operating system or programming language becomes the industry standard and the platform cannot be easily updated, resulting in a decrease in its value. Understanding the rate of technological change in the industry in which the intangible asset operates is crucial for accurately assessing the obsolescence risk associated with an intangible asset, which affects its value.

Functional aspect

- A3.15 The functional aspects of the competitive environment include the following:
- i. **Emergence of substitutes or alternatives which replace the intangible asset's functionality:** The emergence of substitutes refers to the introduction of new products, services, or processes that can perform the same or similar functions as an existing intangible asset. This emergence can significantly affect the intangible asset's market position and value. When substitutes offer improved efficiency, cost-effectiveness, or other advantages, they can quickly attract customers and reduce the demand for the original intangible asset. For example, the value of a patented manufacturing process may decline if a new, more sustainable and cost-effective method is developed, leading to a shift in industry preference. The ability to anticipate and respond to the potential for substitutes is essential for ensuring the function of an intangible asset remains relevant.

Economic aspect

- A3.16 The economic aspects of the competitive environment include the following:
- i. **Size of the market for intangible assets.** The size of the market for a particular intangible asset indicates the potential customer base and the revenue opportunities available. A larger market size generally suggests a higher potential for revenue generation, as there are more users or consumers to target. This can enhance the value of the asset, making it a more attractive investment or collateral.

- ii. Number of competitors. The number of competitors in the market affects the competitive pressure faced by the intangible asset. A market with numerous competitors might lead to price wars, reduced margins, and a need for continuous innovation to maintain market share. If many competitors own similar intangible assets, the intangible asset may lose its competitive advantage, resulting in diminished value for the owner. This can impact the profitability and sustainability of the income generated by the asset.
- iii. Barriers to entry. Barriers to entry refer to the obstacles that new competitors need to overcome to enter the market. High barriers to entry, such as significant capital requirements, proprietary technology, or stringent regulatory hurdles, can protect the market position of an intangible asset. This protection can lead to more stable and predictable income streams, increasing the asset's value.
- iv. Presence (or absence) of switching costs. Switching costs are the expenses that customers incur when changing from one product or service to another. If an intangible asset is associated with high switching costs, customers are less likely to move to a competitor, leading to a more loyal customer base and a steadier revenue stream. This can enhance the asset's value as both an investment and collateral. For example, a subscription-based service that offers personalised content or unique experiences creates high switching costs for its users. If users have invested significant time and effort into curating their preferences within the platform, they may be reluctant to switch to a competitor, even if alternatives are available. This enhances the overall value of the technology platform as an intangible asset.

Importance of the individual subject intangible asset to the owner

- A3.17 When assessing the value of an intangible asset, it is important to consider its characteristics and the context in which it is used, including its importance to the owner. However, the relevance of this consideration depends on the basis of value required for the engagement. For valuations where a market participant perspective is appropriate, such as financial reporting, the analysis should focus on assumptions and inputs that reflect how typical market participants would view and utilise the asset, rather than the specific circumstances or preferences of the current owner. In these cases, less emphasis is placed on the asset's importance to the owner, and greater weight is given to market-based evidence and participant assumptions.
- A3.18 Attributes of the importance of the individual subject intangible asset to the owner include, but are not limited to:
- i. Whether the individual subject intangible asset is a key factor of differentiation from competitors. An intangible asset that serves as a primary differentiator in the market can be invaluable to a business. It may provide a competitive edge, such as a unique brand identity, proprietary technology, or exclusive rights that set the company apart from its competitors. This differentiation can lead to customer loyalty, premium pricing, and increased market share, all of which enhance the asset's ability to generate income and its valuation as an investment or collateral.
 - ii. The importance the intangible asset plays in the owner's marketing strategy. An intangible asset that is central to a company's marketing strategy is likely to be highly valuable. For example, a well-recognised trademark or a strong brand can attract customers and drive sales. If the asset is integral to promoting the company's products or services and achieving its marketing objectives, it can significantly contribute to the company's revenue and profitability, thereby increasing its value.

- iii. The asset's relative importance compared with other tangible and intangible assets. An intangible asset that is more critical to the business's success than other assets will likely command a higher valuation. Its loss or impairment could have a more substantial impact on the company's operations and financial performance, reflecting its importance in the overall asset hierarchy.
 - iv. The amount the owner spends on creation, upkeep and improvement of the subject asset. The level of investment in the creation, maintenance, and enhancement of an intangible asset can be indicative of its value to the owner. Significant expenditure on research and development, legal protection, branding, or continuous improvement suggests that the asset is expected to provide substantial returns or competitive advantages. These investments can enhance the asset's income-generating potential and its attractiveness to investors or lenders as a valuable asset.
- A3.19 The importance of the intangible asset to the owner may influence the determination of whether the intangible asset should be valued separately or grouped with other assets. See Section 5.2 for considerations in determining whether the intangible asset should be valued separately or grouped with other assets.

Life cycle of the subject intangible asset

- A3.20 The life cycle of the subject intangible asset is affected by the specific characteristics of the intangible asset and the environment in which it is utilised. The life cycle of an intangible asset impacts the asset's ability to generate future income and, consequently, its value. Understanding the expected economic life of the subject intangible asset and the risks of the intangible asset becoming obsolete enables valuers to understand its remaining income-generating duration. For example, intangible assets such as patents, copyrights, and customer contracts often have a finite life, while assets such as trademarks and geographical indications may have indefinite lives.
- A3.21 Attributes of the life cycle of the subject intangible asset include the period of contractual or other legal rights and functional, technological and economic obsolescence. See Section 7 for factors in determining the economic life of the subject intangible asset.

4. Risk factors of intangible assets

- A4.1 Similar to business valuation, valuers should also perform an assessment of the risks associated with the individual subject intangible asset. Each intangible asset has its own risk profile, which can significantly affect critical valuation inputs and the resulting outcomes. Therefore, it is important to identify and assess the intangible asset's risks to ensure that they are appropriately considered in the valuation approach and inputs, including, but not limited to projected cash flows, discount rates, and economic life of the intangible asset.
- A4.2 However, the assessment of risks for an intangible asset generally requires significant professional judgement. The risk profile will generally differ for each individual subject intangible asset as each individual intangible asset has its own unique characteristics, challenges and uncertainties.
- A4.3 Understanding the risks associated with the intangible asset allows users of the valuation report to assess the risk-return profile of the intangible asset and make informed decisions.

Legal risks

- A4.4 Intangible assets, by their nature, do not possess physical substance and therefore often rely on legal mechanisms and frameworks for protection. These mechanisms and frameworks provide the necessary structure to establish and enforce the rights that underpin the intangible assets' identification and their ability to generate value.
- A4.5 Attributes of legal risks include, but are not limited to, the following:
- i. Protection risk. The risk that the intangible asset is not adequately protected and safeguarded through legal registration or enforcement mechanisms in the jurisdiction that it operates in. For example, trademarks and patents require timely registration and renewal to maintain their legal protection. Protection risk may arise from weak, insufficient or expired legal protections, e.g. failure to register trademark in all relevant jurisdictions. Without adequate protection, the owner or operator of the intangible asset cannot prevent others from using the asset, which can result in lower earnings potential and reduced returns compared to a scenario where the intangible asset is properly protected.
 - ii. Infringement risk. The risk of unauthorised use or exploitation of the subject intangible asset by a third party, e.g. counterfeit products, unauthorised reproduction of copyrighted material is particularly relevant for intellectual property assets, including patents, trademarks, copyrights and trade secrets. These types of intangible assets are especially vulnerable to infringement because their value often depends on exclusive rights granted by law. Unauthorised use leads to loss in revenue and damage the reputation of the owner or operator. Addressing infringement often requires litigation, which can be time-consuming and expensive, with no guaranteed favourable outcome. Consequently, the intangible asset may become less attractive as an investment or collateral when infringement occurs, since legal disputes and loss of exclusivity can significantly reduce its economic value.

Additionally, it is important to consider the risk that the subject intangible asset inadvertently infringes on other intangible assets. For example, a new product or service may overlap with existing patents or trademarks held by other entities, leading to potential legal disputes. Such infringement can result in costly legal battles, the need for licensing agreements, or even the cessation of the intangible asset's use, further diminishing its value and utility. Therefore, understanding both the risks of infringement by third parties

and the potential for the subject intangible asset to infringe on other intangible assets is crucial for a comprehensive risk assessment.

- iii. Regulatory and compliance risk: The risk of failing to comply with relevant laws and regulations, which may arise when laws and regulations governing the use of intangible assets change, sometimes rapidly. Non-compliance with regulations can result in penalties and mandatory corrective actions, such as modifications to the intangible asset or forced withdrawal of an asset from the market. For example, new stricter data privacy and protection laws, which allow individuals the right to request deletion of their data may require the owner or operator of customer data, a valuable intangible asset for targeted marketing and analytics, to abide by such requests. This can result in deletion of large portions of the database or cease data-driven marketing activities altogether, leading to a loss of the intangible asset's earnings potential and ability to monetise the intangible asset. Consequently, the intangible asset may lose its appeal for investment purposes or as a security for loans.

Technological risks

A4.6 The rapid pace of innovation and evolution in technology can abruptly render intangible assets obsolete, causing their value to decline. As new technologies emerge which are more technologically advanced, the existing intangible asset may lose its relevance. This risk is particularly acute in industries characterised by rapid technological change, such as software, telecommunications, and biotechnology, where technology-related intangible assets, e.g. patented and unpatented technology and software, are key business drivers.

A4.7 Attributes of technological risks include, but are not limited to:

- i. Technological obsolescence risk. Risk that the technology will become obsolete due to new innovations which will restrict the time period during which the intangible asset can generate revenue over as well as the level of future revenues, limiting the asset's future income-generating potential.
- ii. Scalability risk. Risk that the technology cannot handle increased loads or adapt to broader applications in line with market demands, leading to performance degradation, restricting the ability of the intangible asset to capitalise on growth opportunities and limiting the asset's future income-generating potential. This risk is particularly relevant for intangible assets such as mobile applications and software as a service (SaaS) platforms, whose value is tied to their ability to handle increasing volumes of work, transactions, or users, or to be applied across a wider range of uses as the business or market grows.
- iii. Compatibility risk. Risk that the intangible asset's technology cannot be integrated seamlessly into existing systems and standards, resulting in low utility and adoption. Such incompatibility can lead to additional costs for modification or replacement and may even result in the asset being sidelined in favour of other alternatives.
- iv. Security risk. Risk of cyber threats, such as hacking, data breaches, and malware, which can compromise the integrity and confidentiality of the technology and the data it handles. Security incidents can lead to significant financial losses, legal liabilities, and reputational damage.
- v. Dependency risk. Risk associated with reliance on third-party vendors, platforms, or technologies. If a critical supplier fails to deliver, or if third party's technology licensing agreements are terminated, it can have a direct impact on the continuity and performance

of the subject intangible asset, thereby impacting the intangible asset's ability to be monetised.

Functional risks

A4.8 Functional risks may be more relevant for technology-related assets such as proprietary technology or marketing-related assets such as trademarks where the asset's ability to provide a competitive advantage depends on its continued utility and relevance. The loss of utility in these assets can erode the owner's or operator's competitive position and diminish future earnings potential. These risks may be less significant for relationship-based or contract-based intangibles, where value is primarily derived from ongoing customer or contractual relationships rather than specific functional features.

A4.9 Attributes of functional risks include, but are not limited to, the following:

- i. Functional obsolescence risk. Risk that the function of the intangible asset will become obsolete, such as the emergence of new competing intangible assets resulting from the development of more efficient processes, cost-effective solutions, or breakthrough innovations that offer superior functionality, or due to a loss in utility. This may limit the time period during which an intangible asset is able to generate income.
- ii. Substitution risk. Risk of availability of substitutes or alternative assets or solutions that could serve the same function as the subject intangible asset. These substitutes or alternatives may not necessarily be direct replacements but could provide similar benefits or outcomes.
- iii. Inadequate investment risk. Risk that inadequate investment in the asset causes the intangible asset to become less competitive, less effective, or even inoperable. This underinvestment could be due to financial constraints, shifts in strategic focus, or a lack of awareness of the intangible asset's maintenance needs. However, additional investment may not always translate to an increase in the value of the subject intangible asset, as the investment may result in newer intangible assets and thus making the subject intangible asset obsolete.

Economic risks

A4.10 Economic risks can diminish the profitability of intangible assets, undermining the intangible asset's future earnings potential. For example, an economic downturn or shifts in consumer preferences can lead to a decrease in demand for products protected by patents or erode the strength of a brand. This potential reduction in future earnings and cash flows can significantly lower the value of intangible assets.

A4.11 Attributes of economic risks include, but are not limited to:

- i. Consumer demand risk. Risk of adverse change in consumer demand or consumer demand not materialising as expected. Consumer preferences and market trends are highly dynamic and can shift rapidly due to various influences such as technological advancements, cultural shifts, or economic downturns. An intangible asset that is critical to products or services today may become less relevant if demand for those offerings declines. Consumer demand may also fail to develop as anticipated for early-stage intangible assets, such as a new technology, which may lead to a decline in the value of the intangible asset.

- ii. Competition risk. The introduction of new intangible assets by competitors or changes in business strategies associated with existing intangible assets can disrupt the market and erode the competitive edge provided by the intangible asset. This could lead to a loss of market share and a decrease in the expected returns from the subject intangible asset.

Assessing the significance of the identified risks for an intangible asset

A4.12 Some examples of mitigating controls are as follows:

- i. The amount the owner spends on creation, upkeep and improvement of the subject intangible asset to reduce technical and functional obsolescence risk of the subject intangible asset.
- ii. Active management of the intangible asset particularly for intellectual property assets such as patents and trademarks, including (i) ensuring that the intangible asset is adequately registered in the relevant jurisdictions thus reducing the legal protection risk (ii) strict monitoring and swift enforcement of infringement such that the intangible asset's monetisation strategy and potential financial performance are less impacted.
- iii. Implementation of robust operational controls to protect the use and monetisation of the intangible asset, (e.g., digital intangible assets may require robust IT security measures to safeguard against unauthorised access and cyber threats, thereby maintaining the subject intangible asset's technology and data integrity and confidentiality).

A4.13 A risk matrix, such as the one shown below, may be adopted to assess the significance of the risks to the intangible asset.

Types of risk	Inherent risk (characteristics of the intangible asset)	External risk (environment in which it is utilised)	Mitigating controls (mitigating controls put in place by the owner/operator)
Legal			
Technological			
Functional			
Economic			

Considering the identified risks in the valuation

Valuation Approaches and Methods

- A4.14 When valuing an intangible asset, the valuer should select the most appropriate valuation approach or method based on the characteristics and risks associated with the asset. If there is substantial risk associated with the asset's ability to generate those cash flows due to factors like market acceptance, competition, or technological viability, or with the intangible asset's stage of development, the valuer may decide that the income approach is less suitable. In such cases, the cost approach or real options method might be more appropriate.
- A4.15 Cost Approach. It is often used when there is a high degree of uncertainty regarding the future economic benefits of the asset, such as when an asset is in the early stages of development or when there is significant commercialisation risk. It is particularly relevant when future income streams are difficult to predict or when the asset has yet to generate income. When utilising the cost approach, the valuer should ensure the functional, technological and economic obsolescence risks have been considered. For example, when the reproduction cost is higher

than the replacement cost, it may indicate that the intangible asset has become less efficient or less desirable compared to newer alternatives, indicating some form of obsolescence.

- A4.16 **Real Options Method.** It is particularly useful for valuing assets with a high degree of uncertainty such as significant development risk, and where the decision to continue investment can be made at various stages, depending on how uncertainties resolve over time. This method assumes that the owner of the intangible asset has the ability to make changes to the development, utilisation or monetisation of the intangible asset to adapt to the evolving market conditions, technological advancements, regulatory changes, and competitive dynamics, in a non-static set of assumptions about the future. When utilising the real options method, the valuer may consider the development risk in inputs such as the time to maturity and variance in value of the intangible asset.

Cash Flows

- A4.17 The cash flows from an intangible asset are a critical input in the income approach. In assessing the appropriate type of cash flows and reasonableness of the cash flows, the valuer should consider the characteristics and risk profile of the intangible asset.

Type of Cash Flows

- A4.18 Types of cash flows considered in the income approach include, but are not limited to:
- i. Contractual or promised cash flow that arise from legally enforceable agreements such as customer contracts are more predictable as they are based on agreed terms.
 - ii. Single most likely set of cash flows that may be conditional on certain future events, e.g. when the intangible asset has a track record of stable and predictable cash flows.
 - iii. Probability-weighted expected cash flows that incorporate the likelihood of various scenarios occurring instead of relying on a single-point estimate. Probabilities are then assigned to each scenario based on the risk profile of the asset and the expected cash flows are calculated by weighting each scenario's cash flows by its probability.
 - iv. Multiple scenarios of possible future cash flows includes distinct set of outcomes developed to reflect different assumptions (e.g. base, upside, and downside scenarios).

Adjusting Inputs

- A4.19 The assumptions underlying the cash flow projections, such as revenue growth rates, costs, and profit margins, may be adjusted to reflect the risks associated with the intangible asset. For example, if there is a high risk of technological obsolescence, the valuer should discuss with management to understand how the forecasts, including its assumptions such as revenue growth rate, product life cycles and any other additional capital or operating cost required, have considered the impact of such technological obsolescence.

Discount Rate

- A4.20 In determining an appropriate discount rate (or range of discount rates) for an intangible asset, the valuer may consider performing the following:
- i. Determine an appropriate benchmark rate. Some benchmark rates that the valuer may consider include but are not limited to risk-free rate with similar maturities to the life of the intangible asset being valued, cost of debt or borrowing rates with maturities similar to the

life of the intangible asset being valued, cost of equity of the entity owning/using the subject intangible asset, weighted average cost of capital (WACC) of the entity owning/using the subject intangible asset, internal rate-of-return (IRR) in context involving a recent business acquisition including the subject intangible asset, and weighted-average-return-on-assets (WARA) in contexts involving a valuation of all assets of a business.

- ii. Using the benchmark rate as a starting point, adjust for the risks of the intangible asset by assessing the relative riskiness of the intangible asset to the benchmark rate. When WACC is used as the benchmark rate, common factors considered in assessing the relative riskiness of the intangible asset to the riskiness of the business include, but are not limited to:
 - (a) Economic life of intangible asset: If the intangible asset has a relatively short economic life, the intangible asset may carry less risk than the whole business. However, when the intangible asset is a key driver of the business, its risk profile can be higher given its critical influence on the company's overall performance and value. Businesses are typically assumed to operate indefinitely as a going concern, and are therefore exposed to a longer period of risk. In contrast, a short-lived intangible asset is only exposed to risk for a limited duration compared to a long-lived intangible asset. For example, customer contracts usually have a defined term, such as one to three years, during which the business has a high likelihood of generating revenue from its customers, compared to the business is expected to continue to perpetuity.
 - (b) Level of diversification of business in which the intangible asset is used: In a well-diversified business, the intangible asset is just one of many contributors to economic benefits. If the intangible asset is concentrated to a specific segment of the business, the risk associated with the intangible asset could be higher than the overall risk of the entire diversified business.
 - (c) Operational dependencies. If the intangible asset's value (eg, know-how or trade secret) is highly reliant on specific individuals or teams with specialised expertise, it may carry more risk than the business as a whole. The business might have broader operational capabilities and less dependency on any single individual or team, thereby reducing its overall risk.
 - (d) Growth profile and profitability of intangible asset. When the growth trajectory and profitability of the intangible asset differ significantly from those of the business, the asset may be seen as either more or less risky. If the intangible asset exhibits higher volatility or uncertainty in its growth and profitability compared to the stable performance of the business, it may be considered riskier. Conversely, if it shows more stable and predictable growth, it may be seen as less risky.
- iii. Perform analysis to assess the appropriateness of the discount rate such as WARA analysis. A WARA analysis involves evaluating whether the discount rates used to estimate the values of the individual assets that were valued using an income approach and the implied return on goodwill are reasonable in the context of the IRR and the WACC. The WARA is calculated as the sum of the required rates of return of all assets including normal working capital, fixed assets, and intangible assets, weighted by each asset's proportionate share of the total value of the business. Such analysis is commonly performed in the context of a purchase price allocation for a business combination under financial reporting standards.

- A4.21 While certain factors may lead to increased or decreased risk (and therefore higher or lower discount rates), these factors should not be viewed as a checklist. Rather, these factors should assist the valuer in determining an appropriate discount rate by enabling a more complete understanding of the valuation.
- A4.22 In the context involving a valuation of all assets of a business, the returns indicated by IRR, WACC, and WARA should be reviewed for reasonableness. If there are any material differences between the IRR, WACC and WARA, the valuer should reevaluate the reasonableness of the selected discount rates.
- A4.23 In addition to the above, care should be taken to ensure consistency between the discount rate and cash flows used. For example, if the cash flow projections already reflect certain risks such as being probability-weighted for different future scenarios, then the discount rate should not double-count those same risks. Conversely, if the set of cash flows is conditional on a single scenario that assumes certain future events occurring, then the discount rate may need to account for the additional uncertainty or risk associated with those events.

Economic Life

- A4.24 When considering risks in determining the economic life, the following factors may be considered:
- i. **Obsolescence Rate.** The rate at which an intangible asset becomes outdated or less valuable due to technological advances, market changes, or other factors should be considered. A higher obsolescence rate may shorten the economic life of the asset.
 - ii. **Legal Protection.** The duration and strength of legal protection, such as patents or copyrights, can affect the economic life of an intangible asset. If legal protection is weak or nearing expiration, the economic life may be reduced.

See Section 7.2 to 7.8 for guidance on how these factors affect the determination of the economic life.

- A4.25 In summary, the valuer should carefully consider the identified risks and how they impact the selection of the valuation approach, the projection of cash flows, the determination of the discount rate, and the estimation of the economic life of the intangible asset. These considerations ensure that the valuation reflects the true economic potential and risk profile of the asset.

5. Determining whether to value the subject intangible asset as a standalone asset or grouped with other assets (including other intangible assets, where applicable)

- A5.1 When determining whether to value intangible assets individually or as part of a group, valuer should consider the intended use of the valuation, as well as the applicable basis and premise of value. This decision is further influenced by the inherent characteristics of the assets, including their distinctiveness and interdependence.
- A5.2 Intangible assets can hold greater value individually or, conversely, when considered as part of a group. Valuing intangible assets together could show synergies or a collective value that exceeds the sum of their individual parts, which can influence business decisions. In contrast, separate valuations highlight each intangible asset's independent contributions, ensuring that risks or dependencies are not obscured when intangible assets are grouped.

Similar intangible assets

- A5.3 In determining whether the intangible assets are similar in nature, the valuer should consider the following:
- i. Purpose and use. Evaluate whether the intangible assets contribute to the business in comparable ways. For example, if both intangible assets are used to generate customer engagement, enhance brand identity, or protect proprietary technology, they can be similar in function.
 - ii. Operational functionality. Analyse whether the assets are within similar business processes or functions. For example, a telecommunications company that has two major customer contracts. Both contracts involve providing high-speed internet services, and they have similar terms, such as service duration, pricing structure, and revenue-generating capacity.
 - iii. Risk profile. Determine if the intangible assets are exposed to similar risks, such as market competition, regulatory environments, or operational dependencies. Shared risk characteristics reinforce the similarity in economic impact.
 - iv. Monetisation strategy. Consider if the intangible assets generate revenue through the same or a similar method, such as licensing, direct sales, or subscription fees. Identical monetisation approaches often indicate comparable economic impacts.
 - v. Economic output. Assess whether the intangible assets produce similar economic benefits, such as similar revenue streams, profit margins, or cash flow stability.
- A5.4 When valuing intangible assets that are similar in nature, the valuer should consider these factors which include:
- i. Cash flow analysis. Examine the anticipated cash flows for each intangible asset, ensuring that the forecasts reflect similarities in expected revenue generation, risk exposure, and timing. This analysis should align with the specific economic contributions and value drivers of the assets.
 - ii. Discount rate. When valuing intangible assets that are similar in nature and justified based on their similar risk characteristics, the use of similar discount rate is generally appropriate.
 - iii. Economic life. Similar intangible assets should have similar economic lives.

Interdependent intangible assets

- A5.5 Interdependent intangible assets function together and separating them would disrupt their combined economic contribution. These assets have interdependent revenue, shared cost structure and an aligned economic life.
- A5.6 In determining whether the intangible assets are interdependent, the valuer should consider the following:
- i. Purpose and use. Assess whether the intangible assets serve a combined purpose that cannot be easily separated. For example, a proprietary algorithm and its corresponding data set that need to be used together to deliver value would illustrate integrated use and purpose.
 - ii. Operational functionality. Evaluate whether the intangible assets rely on each other to function effectively. For example, two software modules that are designed to work together to deliver a complete product or service would be interdependent because the performance of one asset directly affects the functionality of the other.
 - iii. Risk profile. Examine whether the risks associated with one asset are inherently tied to the risks of the other. For example, if a negative change affecting one asset would immediately impact the value or risk profile of the other, this interdependency indicates a shared risk structure.
 - iv. Monetisation strategy. Consider whether the assets are monetised as a single unit or if their revenue generation strategy requires them to function collectively. If an asset cannot generate revenue independently without significantly affecting the financial performance of the other, they are likely interdependent.
 - v. Economic output. Evaluate whether the assets generate economic benefits that are intrinsically linked. Specifically, consider whether they share substantial costs, such as development, maintenance, or support expenses. If adjusting the costs for one asset directly influences the other, this indicates a cost structure that underscores their interdependency.
- A5.7 When valuing intangible assets that are interdependent, the valuer should consider these factors which include:
- i. Integrated cash flow analysis. The valuer should project cash flows on an integrated basis to capture combined benefits like shared revenue, cost savings, or efficiencies.
 - ii. Discount rate. Apply a discount rate that reflects the combined risk profile of the interdependent assets. Since the assets are linked in performance and risk factors, one discount rate incorporating the risks factors of the interdependent intangible assets is generally justified.
 - iii. Economic life. Determine if the economic life of one asset is dependent on the continued existence or performance of the other. If the economic life of one asset would change significantly without the other, this reflects interdependency. For interdependent intangible assets, the economic life may be assessed with reference to the underlying core IP, if it represents the primary driver of value and the key asset underpinning the other assets.

Complementary intangible assets

- A5.8 Complementary intangible assets enhance each other's value when used together, although each intangible asset retains independent functionality. Individually, they each contribute value but when combined they generate additional benefits or synergies.
- A5.9 In determining whether intangible assets are complementary, the valuer should consider but are not limited to the following factors:
- i. Purpose and use. Evaluate whether the intangible assets work together to enhance value or performance. For example, a software platform and its complementary user training materials, which together improve user adoption and effectiveness, demonstrate a synergistic relationship.
 - ii. Operational functionality. Assess whether the assets are used in conjunction to optimise processes or operations. For example, a CRM system that integrates seamlessly with a sales analytics tool to improve sales performance suggests operational interdependence.
 - iii. Risk profile. Analyse how the risk characteristics of each asset align. Complementary assets may help balance or mitigate risks when combined, potentially creating a more robust economic profile.
 - iv. Monetisation strategy. Review how each asset contributes to revenue generation separately and when bundled. A monetisation model that leverages the combined use of the assets, leading to higher revenue or market advantage, is an indicator of complementarity.
 - v. Economic output. Assess the incremental value produced when the assets are used together, as compared to their standalone economic contributions. The greater the additional economic output, the stronger the case for classifying them as complementary.
- A5.10 When valuing intangible assets that are complementary, the valuer should consider these factors which include:
- i. Synergistic cash flow analysis. The valuer may consider cash flows on synergistic basis to capture combined benefits like shared or increased revenue, cost savings, or efficiencies.
 - ii. Discount rate. Use a discount rate that reflects the specific risk profile of each asset but also account for potential risk mitigation benefits when the assets are used together. If the combined use of the assets reduces overall risk exposure, an adjusted discount rate may be appropriate.
 - iii. Economic life. Consider whether the economic life of one asset enhances or extends the value of the other. For example, if a patented product extends the demand for a related trademark, this can be reflected in the valuation of both assets. However, unlike interdependent assets, each asset can still have its own economic life, even if benefits are maximised when used together.

6. Determining a hypothetical royalty rate for intangible assets valuation

- A6.1 Intangible assets are unique. For those intangible assets that are typically valued using the relief-from-royalty method (i.e. trademarks and patents), the valuer is required to determine and apply an appropriate royalty rate. This process can be challenging and requires significant professional judgement, as each intangible asset possesses unique features that influence its value. Factors such as the intangible asset's distinct characteristics, market conditions, and industry-specific nuances can result in varying royalty rates. Additionally, the income generated by intangible assets is frequently intertwined with the pricing of goods or services, which complicates the process of isolating income attributable solely to the subject intangible asset from that related to other assets. This guidance outlines key considerations that valuers may take into account, offering helpful insights for establishing a hypothetical royalty rate.
- A6.2 The use of comparable or similar transactions method to determine royalty rate is recommended as these transactions provide market-based data points which reflect the negotiated rates in the market. Such transactions would have considered the specific context of the industry, including economic conditions, competitive landscapes, and technological advancements of the relevant intangible asset. From a legal and regulatory perspective, market-based methods are also generally preferred as it allows for benchmarking and comparison in legal disputes and when negotiating with the regulatory authorities such as tax authorities.
- A6.3 Profit split is a method used to determine a hypothetical royalty rate based on the division of profits that would hypothetically be paid between a willing licensor and licensee from the use of the intangible asset, particularly when the intangible asset plays a significant role in the product or service's success.
- A6.4 The return on costs method for determining royalty rates focuses on the costs incurred in creating and developing the intangible asset. The method offers a transparent justification of the royalty rate based on actual costs incurred. This method is often used in technological related intangible assets when the intangible asset's value is closely related to the development costs and when there is limited market data available for comparable. It is also applicable where a market participant would not be willing to pay a significant premium for the ability to use the subject intangible asset immediately.
- A6.5 While the comparable or similar transactions method can provide valuable insights, it also has several limitations. It can be challenging to find truly comparable licensing agreements, especially for unique or highly specialised intangible assets. The lack of publicly available data on private transactions further complicates this issue. Even when comparable or similar transactions are available, selection bias often arises because only material agreements tend to be disclosed. Furthermore, variations in key terms such as exclusivity, territory, field of use, and duration can make direct comparisons challenging. Additionally, market conditions evolve over time, and a rate that is considered standard in the past may no longer be applicable at the valuation date in question. Economic factors, industry trends, and changes in consumer demand can also affect the relevance of historical agreements.
- A6.6 Therefore, understanding the terms of the licensing agreement is crucial when analysing the royalty rate as they provide context on the scope of rights, limitations, and payment structure between the licensor and licensee. A thorough understanding of these terms is essential to appreciate the value exchanged in the licensing arrangement which is reflected in the form of royalty payments.

Comparable or Similar Transactions Method

Specific rights transferred to the licensee and any limitations

- A6.7 Specific rights transferred to the licensee and limitations, include but are not limited to:
- i. **Scope of Rights.** The agreement outlines the specific rights being licenced, such as the ability to use a patent, trademark, or copyright. The breadth and depth of these rights can impact the value of the licence and, consequently, the royalty rate.
 - ii. **Territory.** Refers to the geographic scope in which the licenced intangible asset can be used. A global licence may warrant a higher royalty rate than one limited to a narrower region, as it offers access to a larger market with greater revenue potential.
 - iii. **Exclusivity.** Exclusive licences typically command higher royalty rates because the licensee gains the sole right to use the intangible asset within a certain territory or market, which can provide a competitive advantage. Non-exclusive licences may result in lower royalty rates since the licensor can grant similar rights to multiple parties.
 - iv. **Duration of the licence period.** The length of the licensing agreement can influence the royalty rate. Longer agreements provide the licensee with extended access to the intangible asset, potentially increasing the overall market potential and justifying a higher royalty rate to reflect this benefit. Conversely, shorter agreements may reduce the market potential and utility for the licensee, which may support a lower royalty rate to account for the limited timeframe.
 - v. **Termination clauses.** Conditions under which the agreement can be terminated which include breach of contract or failure to meet sales thresholds, can affect the royalty rate, especially if there are penalties involved.
 - vi. **Technical assistance.** The support provided by the licensor to the licensee, which include training, expertise in product development, ongoing technical support, and assistance in maintaining quality standards. Technical assistance in a licensing agreement enhances the value of the licence and supports the licensee's success, which can justify a higher royalty rate.
 - vii. **Field of use.** Some licences restrict the use of the intangible asset to specific fields or industries. A broader field of use can increase the royalty rate due to the greater commercial opportunities available to the licensee.
 - viii. **Sublicensing.** The ability to sublicense can affect the royalty rate. If the licensee can sublicense the intangible asset, the licensor may seek a higher rate or a share of sublicensing revenues.
 - ix. **Improvements and derivatives.** The handling of improvements to the intangible asset or derivative works can influence the royalty rate. If the licensee is allowed to retain rights to improvements, the licensor may require a higher royalty rate to compensate for the additional value created by the licensee.
 - x. **Restrictions.** Restriction clauses can significantly affect the royalty rate by limiting how, where and by whom the licenced intangible asset can be used. These limitations can either

increase or decrease the perceived value of the licence to the licensee, which in turn influences the royalty rate.

Payment Structures

- A6.8 The different payment structures may also affect the royalty rate. This could be a percentage of sales, profitability measures such as gross operating profit, a fixed amount per unit, or a combination of different payment structures. It may also include minimum guarantees, upfront payments, or lump-sum payments, all of which impact the overall financial return for the licensor. Features of such payment structures include but are not limited to:
- i. Minimum Guarantees. Minimum annual royalties guarantee the licensor a certain income regardless of sales. Minimum guarantees reduce the licensor's risk if the licensee's sales underperform. This security can sometimes justify a lower royalty rate because the licensor is assured of receiving a certain revenue regardless of sales.
 - ii. Upfront Payments. An initial lump-sum payment can be credited against future royalties or considered separately, influencing the ongoing royalty rate. Upfront payments provide immediate cash flow to the licensor, which can be attractive, especially if there is a need for immediate funding. This might allow for a lower ongoing royalty rate since the licensor receives a portion of the compensation upfront.
 - iii. Performance milestone payments. Agreements may include performance milestones that the licensee are required to meet, such as minimum sales targets or development benchmarks. These milestones may potentially include a lower rate for initial periods followed by higher rate upon achieving certain goals.
 - iv. Gross or net royalty rate. The definition of the base upon which royalties are calculated such as net sales, gross sales, or a different base will directly impact the effective royalty rate. Gross royalty rates consider that the licensor covers all functions associated with ownership of the intangible asset, typically resulting in a higher rate, while net royalty rates consider some or all of the functions are borne by the licensee, resulting in a lower royalty rate.
 - v. Puts/calls to acquire the licenced property outright. A put/call option in a licensing agreement gives one party the right (but not the obligation) to sell (put) or buy (call) the licenced property outright at a predetermined price within a specified timeframe. If the licensee has a call option, they may be willing to accept a higher royalty rate knowing they have the option to acquire the intangible asset outright later. Conversely, if the licensor has a put option, they might accept a lower royalty rate with the security of being able to sell the intangible asset in the future.
 - vi. Royalty rate structure. A tiered rate that changes with the level of sales, or a combination of a fixed fee per unit plus a percentage of sales.
- A6.9 The above terms are often interrelated, and changes in one aspect can lead to adjustments in others. It is important to consider the entire context of the licensing agreement when determining the appropriate royalty rate.

Analysis of differences between identified comparable licensing agreements

- A6.10 To analyse the differences between identified comparable licensing agreements and how such differences affect their royalty rates involves a systematic approach to evaluate and compare various factors that influence the royalty rates. The following steps can be adopted:
- i. Data collection and selection of comparable. The valuer should use data from licensing agreements that are comparable to the subject intangible asset in terms of industry, technology, market, and other relevant factors. Select comparable with similar characteristics.
 - ii. Detailed analysis of agreement terms. Identify and list the key variables that affect royalty rates, such as exclusivity, territory, field of use, duration, sublicensing rights, and any other relevant terms to facilitate comparison amongst the licensing agreements.
 - iii. Royalty rate comparison. Compare the royalty rates of the agreements, considering the differences in terms and conditions. Identify any factors that may require adjustments to the royalty rates for a fair comparison, such as market conditions at the time of each agreement. Additionally, determine any correlation between the terms of the agreements and the observed royalty rates.
 - iv. Identify differences and impact on royalty rates. For each comparable, identify how the terms differ from the subject intangible asset's potential monetisation terms. Assess how these differences may affect the subject intangible asset's royalty rate, such as in cases of perpetual versus fixed-term agreement.

Adjustment for differences

- A6.11 When adjusting the observed royalty rates to account for differences in agreement terms, market conditions, and other variables that could skew a direct comparison, the following considerations can be adopted:
- i. Terms adjustment. Evaluate the terms of the subject intangible asset relative to the comparable. If the subject intangible asset's terms are less advantageous where there is a narrower field of use, consider applying a lower royalty rate to reflect the reduced utility and market potential. For agreements with perpetual terms, consider how the lack of an expiration date might justify a higher royalty rate compared to fixed-term agreements and adjust the royalty rates to account for differences in term length, ensuring a like-for-like comparison.
 - ii. External environment adjustment. Analyse the external environment at the valuation date, including market conditions, regulatory changes, and economic factors. If conditions are more favourable than at the time of the comparable, adjust the royalty rate upwards to reflect the improved environment. Some of the examples of the analysis include but not limited to:
 - (a) Market condition analysis such as market demand/trends, competition and technological advancements. High demand can command a higher royalty rate, while increased competition may justify a lower royalty rate. New technologies may make the intangible asset more valuable, supporting higher royalty rates.
 - (b) Regulatory change assessment such as legal environment and compliance costs, which can impact the profitability of the intangible asset and consequently, the royalty rate.

- (c) Economic factors analysis such as overall economic environment, including factors like inflation rates, interest rates, and economic growth. Economic downturns may lead to lower disposable incomes and reduced sales, affecting royalty rates. Also, a licensor may grant a licensee a lower royalty rate in a new or untested market.
- iii. Cash flow consistency. Examine the payment structures of the comparable and align with the projected cash flows of the subject intangible asset. Ensure that the royalty rates are consistent with the cash flows applicable to the subject intangible asset and adjust the royalty rate to reflect the differences in cash flows between the subject intangible asset and the comparable. For example, when the subject intangible asset's cash flows cannot be adjusted for expenses observed in the comparable, adjust the royalty rate to account for these differences. If cash flows have been adjusted for such expenses, the observed royalty rate can be adopted without further modification.
- iv. Adjustment to royalty rates. Rather than subjectively adjusting the royalty rates, valuer can consider the following possible ways to account for the adjustments in determining the royalty rates:
 - (a) Modified royalty rates to account for the observed differences. For example, where there is an upfront payment, imply what would the royalty rate be, without the upfront payment, keeping sales constant.
 - (b) Use of regressions on the key variables to predict the royalty rate for the intangible asset. This approach works when the number of comparables is large and the relationship between the royalty rate and the variable can be established.
 - (c) Scoring and rating techniques by determining the key variables that influence royalty rates and assigning weight to each variable based on their relative importance in affecting royalty rates, thereby quantifying the difference between the subject intangible and comparable transactions.

A6.12 The following are examples of adjustments for differences in observed royalty rates. This list of examples is not exhaustive. Furthermore, the examples are not intended to discuss all factors that may be relevant to the analysis:

Example	Analysis
Example 1 – External environment adjustment Consider a valuation for CloseAI, a patented Artificial Intelligence (“AI”) software designed for Natural Language Processing (“NLP”) and generative AI applications.	The valuer gathers several licensing agreements from RoyaltySource and other databases. The valuer observes that one of the comparable licensing agreements is from five years ago, where a similar AI technology was licensed at a 5% royalty rate. The changes in the external environment today supports a higher royalty rate based on the following factors: Market condition analysis: Growth in AI adoption: Five years ago, AI was mainly used for basic NLP tasks such as chatbots. Today, generative AI is integral to mission-critical business applications across

	industries such as finance, healthcare, legal, and customer support. This broader, strategic integration of AI exemplified by CloseAI makes licensing agreements more valuable today than five years ago. Regulatory change assessment: Stricter AI regulations now demand higher compliance for transparency, bias mitigation, and data privacy. These increased compliance costs mean that AI developers, including those behind CloseAI, incur greater expenses than five years ago. Economic factors analysis: Licensees now face higher operational costs due to higher inflation but benefit from cheaper financing due to the low-interest rate environment. As a result, they are more inclined to invest in premium, cost-saving technologies like CloseAI. These shifts all point toward a higher royalty rate for CloseAI compared to the historical 5% rate. To establish an appropriate royalty rate range, the valuer conducts additional analysis, including reviewing other comparable licensing agreements, ensuring that the selected rate appropriately reflects CloseAI's enhanced value and strategic importance in the current environment.
Example 2 – Adjustment to royalty rates For example, consider a situation where post discussion with the management, the valuer determined that revenue-based computations should be used to derive the royalty rate for a patent. The valuer identified a comparable licensing agreement that includes an upfront fee, necessitating an adjustment for meaningful comparability. The comparable licensing agreement has the following terms which includes a \$15,000 upfront fee, 3.5% stated royalty rate, \$40,000 annual net sales and a licence term of 4 years.	The valuer calculates the royalty income based on the stated 3.5% rate and with an annual net sales of \$40,000 which results in \$1,400 royalty income per year. Over the four-year term, the total royalty income amounts to \$5,600. To determine the total expected royalty income, the valuer incorporates the \$15,000 upfront fee, bringing the total expected royalty income which includes the upfront fee to \$20,600. The valuer then computes the adjusted royalty rate excluding the upfront fee by dividing the total expected royalty income which includes the upfront fee of \$20,600 by the total net sales over the licence term (\$40,000 x 4 years), which totals to \$160,000. The adjusted royalty rate is determined to be 12.88%.

	In this example, while the original agreement states a royalty rate of 3.5% with a \$15,000 upfront fee, the effective rate on annual net sales is higher when the upfront fee is factored into the total expected income. By spreading the total income over the licence term, the adjusted royalty rate is calculated to be 12.88%. This adjustment ensures that, when comparing with other licensing agreements, the economic substance of the fee structures is properly accounted for, resulting in a more meaningful comparison. Additionally, when making such adjustments, it is important to consider the time value of money by discounting future royalty streams to present value, such as when licence terms are long. This ensures the adjusted royalty rate captures the true economic substance of the payment structure.
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Profit Split Method

- A6.13 The profit split method is premised on the principle that returns should generally be aligned with the relative contributions to value creation. Similar concepts are also discussed in other literature, such as transfer pricing, where the allocation of returns is considered with reference to value creation, through the functions performed, assets used and risks assumed by the relevant parties. As such, these concepts may provide additional perspectives in assessing relative economic contribution. However, the application of profit split analyses in this GN is intended to support the valuation of the subject intangible asset, and should not be interpreted as applying transfer pricing principles or determining arm's length outcomes between specific entities.
- A6.14 When determining a profit split, various profitability measures (such as net profit, gross profit, EBIT, contribution margin, etc.) can be used to assess the financial performance of the product or service that incorporates the intangible asset. These measures help in calculating the share of profits that is allocated to each party and can be considered in the following manner:
- i. Net Profit. Royalty rates determined by net profit ensure that the licensor shares in the success of the product or service only after the licensee has covered all costs and ensured the business's sustainability.
 - ii. Gross Profit. Using gross profit to determine royalty rates focuses on the profitability of the core business activities and can be suitable when the intangible asset is directly tied to the production process or product itself.
 - iii. EBIT. Using EBIT to determine royalty rate is relevant when the licensor and licensee want to split profits based on the operational success of the business, independent of financing decisions or tax strategies.
 - iv. Contribution margin. Using contribution margin to determine royalty rate is relevant for products or services where variable costs are a significant portion of the total costs, and

the intangible asset has a direct impact on sales volume or pricing. Royalty rates based on the contribution margin ensure that the licensor shares in the profits from each unit sold after variable costs are covered.

Comparable Profit Split Method

A6.15 The Comparable Profit Split method involves analysing profit splits from comparable agreements to determine an appropriate royalty rate. Depending on the transaction's specifics, additional methods such as contribution analysis and residual analysis, may provide further insights to refine the profit split. The steps in applying the method involve:

- i. Identify comparable joint venture, partnership or similar agreements by defining criteria for what constitutes a comparable agreement, such as industry, intangible asset type, market, and size of the entities involved.
- ii. Analyse the agreements for the key terms from each agreement that impact profit splits, such as exclusivity, territory, field of use, duration, and sublicensing rights.
- iii. Gather specific data and assess the profit split percentage based on the following ways:
 - (a) Gather specific data from agreements and account for variations in the terms, market conditions and intangible asset significance. After making adjustments, analyse this profit split percentage and establish a range of profit split percentages based on these comparable agreements;
 - (b) Consider using contribution analysis to assess the relative value of each party's contributions. This can involve analysing asset-based factors such as operating assets, production assets or intangible assets contributed, and cost-based factors such as R&D, marketing, or operational expenses incurred, which influences the profit split allocation; or
 - (c) In certain circumstances, the valuer may first assess those contributions for which market-based evidence or other observable information is available. The valuer may then analyse the remaining profits or economic benefits with reference to the relative contribution of the relevant assets (which may include intellectual property-based assets and other assets) to value creation. In performing this assessment, the valuer may consider factors such as ownership rights, functions associated with the assets, invested capital, historical expenditures, expected economic returns and the associated risks. Such analysis is intended to provide an indication of the relative contribution of the assets and should not be interpreted as prescribing a specific allocation methodology.
- iv. Determine the royalty rate range by applying the profit split percentage to the projected profits from the monetisation of the intangible assets to determine a range of potential royalty rates.

Asset Class Split Method

A6.16 The Asset Class Split Method focuses on an economic value-added perspective by capitalising certain costs which have an economic benefit beyond the period in which they are incurred, rather than expensing them.

A6.17 This method can be applied as follows:

- i. Identify the intangible assets and related expense categories such as R&D expenses or advertising and promotional expenses, that will be reclassified as investments and capitalised.
- ii. Identify and analyse historical expenses for each of the intangible asset from a market participant perspective, which may involve adjustments to account for functional, technological or economic obsolescence or removing certain excess inefficiencies from historical costs. The period over which the expenses would be accumulated depends on the period of the economic benefit of the respective capitalised expenses.
- iii. Estimate the economic lives for the intangible assets based on its period of economic benefit.
- iv. Capitalise the identified relevant expenses over their estimated economic lives and apply amortisation to determine the average balance of the capitalised amount. This balance reflects the reasonable level of invested capital for the intangible assets.
- v. Estimate the after-tax rate of return to apply to each of the intangible asset's invested capital amounts. The selection of these rates considers the related risk associated with achieving the expected return on investment.
- vi. Apply the selected rates of return to the calculated invested capital amounts for the intangible assets to arrive at the return on invested capital (ROIC). This serves as a proxy for splitting the excess profits and provide an indication of the relative contributions of the intangible assets.
- vii. Allocate the excess profits according to the return on invested capital (ROIC) for each intangible asset. The valuer should also include the total development expenses when calculating the total excess profits allocated to the intangible assets which represents the return of invested capital. The total implied excess profit should encompass both the return on and return of invested capital.
- viii. Calculate the total implied excess profit which includes the return on invested capital and the total development expenses.
- ix. Determine the royalty rate based on the calculated total implied excess profit attributable to the intangible assets which can be represented as a percentage of sales.⁴

A6.18 Given the reliance on historical costs, it is essential to adjust or interpret the result in light of current market realities. This ensures that the implied royalty rate is not outdated or disconnected from what is reasonable or achievable in the present market. For example, if the intangible asset was developed when the technology was novel but now faces significant competition, the royalty rate should reflect the increased risk and potentially lower value.

Premium Contribution Method

A6.19 The Premium Contribution Method for determining royalty rates involves estimating the additional value or "premium" that the intangible asset contributes to a product or service, including both revenue-enhancement and cost savings attributable to the asset, and then

⁴ Please refer to Chapter 12 of the American Institute of Certified Public Accountants (AICPA) Accounting and Valuation Guide, Business Combinations (2024) for an illustrative example of the application of the Asset Class Split Method.

calculating the royalty as a share of that premium. This may be observed in the “premium” for a branded product versus another generic product equivalent or a product incorporating proprietary technology versus a substitute using generic or common technology. The steps in applying the method involve:

- i. Identify the unique benefits or advantages the intangible asset provides to the product or service. This could be brand recognition, technological innovation, or any other feature that enhances the product's appeal or functionality.
- ii. Estimate the incremental revenue through new market opportunities or product lines enabled by the presence of the intangible asset, or higher selling price that can be attributed to the intangible asset. This could involve market research, consumer surveys, or analysis of sales data for similar products without the intangible asset.
- iii. Assess the incremental profits by estimating the additional revenue generated by the premium associated with the intangible asset and deducting any additional costs incurred in producing or marketing the intangible asset-enhanced product from the incremental revenue. The above steps can similarly be performed to estimate any cost savings that can be attributable to the intangible asset. The result is the incremental profit attributable to the intangible asset.
- iv. Determine the royalty base by selecting whether the royalty will be based on incremental revenue, incremental profit, or another financial metric that reflects the premium contribution of the intangible asset.
- v. Determine the royalty rate based on the calculated premium contribution (based on incremental revenue, incremental profit, or another financial metric) which can be represented as a percentage of sales.

Return on Costs Method

A6.20 The total costs elements may differ depending on the type of intangible asset and the valuer should include the direct and indirect costs that would be required during the process of developing the intangible asset. Some common items to consider include, but are not limited to:

- i. Direct costs:
 - (a) Materials, and
 - (b) Labour
- ii. Indirect costs:
 - (a) Transport costs
 - (b) Installation costs
 - (c) Professional fees (design permit, architectural, legal, etc.)
 - (d) Overheads
 - (e) Taxes
 - (f) Finance costs (e.g., interest on debt financing), and
 - (g) Other fees (commissions, etc.)

A6.21 In determining the costs' returns, the valuer should calculate the appropriate returns, namely:

- i. The return of costs. This refers to the recovery of total investment made throughout the process to develop the intangible asset, whether it is completed or still in process. For completed intangible asset, this ensures the investor recovers the initial investment made

to develop the intangible asset. For in-process intangible asset, the valuation will need to consider the investments incurred to date and project the future investments required to bring the intangible asset to completion. This component ensures that the investor recovers the total amount spent on research and development over the asset's economic life. The return of costs is calculated by the total amount spent over the economic life of the intangible asset.

- ii. The return on costs. This represents an appropriate profit or compensation for the risks and efforts associated with developing the intangible asset. This return should reflect the opportunity cost of capital for the level of risk undertaken during process of developing the intangible asset. The valuer should consider the following key factors when determining the return on costs such as:
 - (a) Level of risk and uncertainty. The return on costs should reflect the inherent, external and mitigating control risk factors explained in Section 4: Risk factors of intangible assets. If the valuer's assessment identifies significant inherent or external risks with limited effective mitigating controls, the required return should be higher than that of an intangible asset with lower risk and uncertainty. This higher return reflects the need to compensate for the additional uncertainty, potential variability in outcomes, and the substantial risks and efforts associated with developing the intangible asset.
 - (b) Stage of development of the intangible asset. The return on costs should reflect the intangible asset's stage within the development lifecycle. Early-stage intangible assets involve high uncertainty and risk, requiring higher returns. As the intangible asset advances and risks are mitigated, such as after prototype testing or regulatory approval, the required return may decrease, though it remains higher than for established intangible assets.
 - (c) Financing and capital structure. When the costs of developing the intangible asset is financed through debt, the cost of debt and the related financial risk need to be considered. On the other hand, if the project is funded with equity, the required return needs to align with the higher cost of equity, reflecting the greater risk borne by equity investors. If the development of the intangible asset is financed using a combination of debt and equity, the return on costs can incorporate the weighted influence of both funding sources, typically represented by the company's Weighted Average Cost of Capital (WACC).

A6.22 Thereafter, the hypothetical royalty rate can be determined based on the total return on and return of costs and the projected revenue.

A6.23 The return on costs approach should not be given substantial weight unless the valuer can provide justification for significant reliance on it, as these costs often lacks precision and is based on historical expenditures rather than future economic benefits which may not directly correlate with the intangible asset's value.

Supplementary factors

A6.24 The Georgia-Pacific Factors comprise fifteen factors which include factors relating to rights of the intangible asset, royalty rates for comparable intangible assets, economic performance of the subject intangible asset and contribution to profit. The factors are typically applied in the context of litigation or dispute resolution settings, where a hypothetical negotiation between a willing licensor and licensee is required to be reconstructed for damages assessment.

- A6.25 Functional analysis involves analysing the functions performed, considering the assets employed, and the risks assumed, by relevant parties involved in the intangible asset value chain. This assessment supports the allocation of business profits among the contributing intangible assets based on their relative roles and provides the basis for deriving a hypothetical royalty rate. It is typically used in transfer pricing contexts to identify which transactions between unrelated parties are sufficiently similar to the related-party transaction, thereby enabling the assessment of an arm's length royalty rate (e.g., Development, Enhancement, Maintenance, Protection and Exploitation (DEMPE) analysis, a framework used in transfer pricing) to assess how value is created and returns are attributable.
- A6.26 For technology-related intangible assets, valuer often use factor or scoring models to quantitatively assess and rank the drivers of royalty rates. This approach involves identifying key criteria (such as market size, product margins, IP strength, stage of development, and external trends), assigning scores and weights to each, and calculating a weighted score to benchmark the subject intangible asset against comparable intangible assets. The use of such models is particularly relevant for technology-related intangible asset as it enhances transparency and supports adjustments for differences in asset characteristics.
- A6.27 Royalty stacking is the cumulative royalty burden a licensee is required to pay to multiple intangible asset owners to commercialise a single product. As products and services become more complex and embed many technologies, these royalties "stack" and the individual contribution of any single technology is reduced. Royalty stacking is more relevant for complex technology products and services that incorporate multiple intangible assets. Royalty stacking may be considered in the determination of the royalty rate to ensure that the combined effective royalty rate is economically feasible and that each intangible asset's contribution is proportionate within the overall stack.

7. Determining the economic lives of intangible assets

- A7.1 An important consideration when valuing an intangible asset is its economic life. The economic life of an intangible asset is crucial because it provides insight into the duration whereby the asset remains viable and productive, thereby affecting its expected risk, returns and corresponding value. Understanding an intangible asset's economic life aids the owner or operator in strategic planning, including investment timing, resource allocation, and lifecycle management of products or services. For investors and lenders, the economic life of an intangible asset is used to determine suitable investment horizons and financing terms, ensuring they align with the expected lifespan of the intangible asset.
- A7.2 The economic life of an intangible asset in the context of a valuation is a different concept than the remaining useful life for accounting or tax purposes.
- A7.3 Many legal rights to intangible assets are granted for a limited term, with options for renewal. The process, conditions, costs, and limitations on the number of renewals can significantly affect the duration of these rights. For example, trademarks in many jurisdictions can be renewed indefinitely, but this typically requires active use and periodic renewal fee payments. The evaluation of economic life should include the renewal periods only if renewal is both likely and economically feasible. To justify including renewal periods in the economic life, there should be evidence indicating that the intangible asset would be renewed and that such renewal can be achieved at a cost that is economically beneficial to the extended economic benefit.
- A7.4 In order to determine the impact of functional, technological or economic obsolescence on economic life, valuers will need to understand the (i) external environment such as market trends, competitive landscape, consumer preferences, (ii) characteristics of the subject intangible asset as compared to the competition, and (iii) importance of subject intangible asset to owner of the asset. Valuers may consider performing the following non-exhaustive list of procedures:
- i. Enquire the Research & Development ("R&D") team who developed the intangible asset: The R&D team responsible for developing the intangible asset can provide valuable insights into the asset's design, intended use, and adaptability to changing market demands or technological advancements, which can influence its susceptibility to obsolescence.
 - ii. Enquire the marketing or operations team involved in monetising the intangible asset: The marketing and operations team can provide insights into the intangible asset's monetisation strategy as well as the competitive environment in which the intangible asset operates, which enables valuers to understand the potential for economic obsolescence associated with the intangible asset.
 - iii. Obtain additional specialised or detailed knowledge from an industry specialist: Consult with an industry specialist to understand the economic life of the intangible asset and the pattern of decay of value due to obsolescence over the economic life. An industry specialist can provide insights into industry trends, competitive dynamics, and technological advancements that could affect the asset's utility and longevity. An industry specialist can also offer perspective on regulatory changes, market shifts, and consumer behaviour patterns that may not be immediately apparent to those outside the industry. By leveraging the expertise of an industry specialist, the valuer can better understand the factors that contribute to the asset's economic life and make more accurate predictions about its potential obsolescence.

- iv. **Analysis of survival curves:** Survival curves are statistical tools used to model the economic life of an asset by analysing the rate at which similar assets have historically ceased to be used or have become obsolete. For example, the rate of obsolescence can be straight line or double declining. Some common types of survival curves include Iowa curves and Weibull distributions. Survival curves are usually based on physical assets. However, if the intangible asset is used in conjunction with a physical asset, such as a product, the rate of obsolescence of the physical product may serve as an indication for the rate of obsolescence for the associated intangible asset. The valuer may determine an obsolescence pattern and period that best fits the characteristics of the product that the intangible asset is used in conjunction with and the industry the product relates to. The chosen curve should reflect the product's historical patterns of obsolescence. By analysing survival curves, the valuer may estimate the decline in value of an intangible asset due to obsolescence.
- v. **Analysis of historical financial performance and market share of products or services which the intangible asset is used in:** Assessing the market share of the products or services which the intangible asset is used in relative to its competitors can provide an indication of the rate of obsolescence. Intangible assets associated with products or services that have a smaller market share tend to be more susceptible to competitive pressures and are likely to be phased out more rapidly compared to those that are market leaders. Another factor is relative revenue growth. If the intangible asset experienced slower growth or a more rapid decline than the market average, it is likely to become obsolete more quickly than other intangible assets. Lastly, profitability of the intangible asset may also affect how quickly the intangible asset becomes obsolete. The more profitable an intangible asset is relative to its competitors, the more likely that it will survive until the final consolidation in its category. The relative historical speed of change in market share, revenue growth and profitability may provide a proxy for the rate of obsolescence.
- vi. **Analysis of industry consolidation cycle:** The industry concentration, which refers to the number of firms serving the total production, sales, or market share within a particular industry, affects the speed of industry consolidation, which in turn influences the obsolescence rate. During the emerging phase of an industry, the concentration rate tends to be quite high, characterised by a limited number of competitors. As this new market becomes more attractive, an increasing number of competitors will enter, leading to a reduction in the concentration rate. However, as growth rates begin to decline, the industry will likely consolidate through mergers and, in some cases, business failures for certain firms. This will result in fewer competitors and an increase in the concentration rate until it reaches its peak. Based on the current concentration rate, current number of remaining players and historical consolidation rate of the industry, the valuer may develop a projection of the likely average annual consolidation rate for the next period, until a mature and stable stage is reached. Such consolidation may provide an indication for the rate of obsolescence for the intangible asset.

Example	Analysis
Economic life assessment Consider the valuation of a patented health monitoring technology named HealthPulse. HealthPulse is used in a specific medical device that treats kidney disease and is used in hospitals and dialysis clinics. HealthPulse's patent has been registered for	In assessing the functional, technological and economic obsolescence of HealthPulse, the valuer considers the following: i. Based on discussions with the R&D team, the valuer learns that HealthPulse incorporates advanced sensors and machine learning algorithms to provide accurate health data. Although these

20 years from December 20X6. As the valuation date is December 20Y9, the remaining legal protection period is 7 years.	features were novel when HealthPulse was first introduced, they have since become standard in the market. The R&D team also shares that they anticipate a radical change in the technology in about 3 years' time from the valuation date based on historical development cycles, anticipated technology advancements and competitor products. ii. The valuer speaks with an industry specialist and understands that similar medical devices typically have an economic life of 15 years. HealthPulse's device has been in the market for 13 years. Further conversation with the specialist highlighted that the rapid pace of innovation in the health tech sector presents opportunities for continuous improvement and updates to the technology. iii. Based on the above, the valuer estimates that the economic life of the technology is 15 years, with a remaining economic life of 2 to 3 years which is shorter than the remaining legal protection period of 7 years. iv. After assessing economic life, the valuer assesses the rate of obsolescence. Based on discussions with management, the valuer assesses that similar devices typically experience a gradual obsolescence during the initial 7-10 years from introduction due to hospitals and clinics preferences of using a familiar existing device before switching to a new device. A steeper decline is expected in years 10-15 before servicing is no longer provided at the end of 15 years. The valuer also considers survival curves for similar devices and assesses the curve which best reflects the expected decline in value of the devices as described by the pattern above. The valuer applies this curve to determine the obsolescence of the technology.
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- A7.5 For intangible assets which do not have a defined period of legal rights, the economic life may not be constrained by the period of the contractual or other legal rights, but rather the functional, technological and economic obsolescence affecting the intangible asset. For example, the economic life of a non-contractual customer relationship is based on the period over which the relationship is expected to generate economic benefits, considering factors such as customer retention rate, market conditions, competitive dynamics, and the overall economic environment within the industry. Similarly, the economic life of an unregistered trademark depends on the duration over which the trademark can continue to generate economic benefits through its recognition, distinctiveness and level of consumer loyalty it commands, constrained by functional, technological and economic factors in the environment within the industry in which it is utilised.
- A7.6 In addition, for certain intangible assets, the economic life may be longer than the period of contractual or other legal rights. This can occur when the intangible asset is integral to the production of goods or services that continue to be in demand and retain their market relevance even after the legal protections have lapsed. For example, in determining the economic life of a brand, the period of legal protection of the trademark associated with the brand may be considered. However, the brand itself can have enduring value that outlasts the duration of trademark protection. Consumers may remain loyal to a brand due to its reputation, quality, or other characteristics, and continue to choose its products or services based on brand recognition alone. Therefore, the duration over which the brand can generate significant economic benefits may exceed the period of legal rights of the trademark associated with the brand.

Difference between economic life, accounting useful life and tax amortisation period

- A7.7 In determining the economic life, the valuer should not adopt the accounting useful life as the economic life. Accounting useful life is influenced by an entity's accounting policies, which aim to allocate the cost of an asset over its useful life in a systematic and rational manner and reflect the period over which the asset will contribute both directly and indirectly to the expected future cash flows of the entity, rather than market participants. As such, when assumptions regarding how the entity intends to use the asset differs from how market participants would use the asset, the accounting useful life will differ from the economic life. For example, an entity develops a software system, which has an economic life of 7 years based on the period during which it is expected to generate economic benefits. However, the entity may plan to use the software for a shorter duration of time. As a result, the entity determines the accounting useful life to be 5 years instead, which differs from the economic life.
- A7.8 In determining the economic life, the valuer should not adopt the tax amortisation period as the economic life. Tax amortisation period is determined by tax regulations and is used for tax amortisation purposes. Tax authorities establish specific life spans for different types of assets to standardise the tax treatment across businesses and therefore may not consider the unique circumstances of an individual intangible asset, unlike economic life which is tailored to the subject intangible asset. Tax amortisation lives may also be influenced by broader economic or political goals, such as encouraging investment in certain industries. Following the same example above, the tax amortisation period of software based on the tax regulations may be 3 years, which is different from the economic life of 7 years. Therefore, the tax amortisation period should not be adopted as the economic life of the intangible asset.

Conditions in determining if the economic life is indefinite

- A7.9 In assessing if the economic life of an intangible asset should be indefinite, the following conditions have to be met:

- i. A well-established intangible asset is one that has a demonstrated track record of generating economic benefits. The intangible asset should also be expected to continue generating similar levels of economic benefits in the future. For example, a proprietary software platform that has become the industry standard which has been historically generating significant economic benefits could be considered a well-established intangible asset.
- ii. Absence of legal, regulatory, contractual, competitive, economic or other factors: For an intangible asset to have an indefinite economic life, there can be no foreseeable limit on the period over which the intangible asset can generate economic benefits. Such limits may be due to legal, regulatory, contractual, competitive, economic or other factors, such as but not limited to, patent expirations, actual or anticipated regulatory changes, or shifts in consumer preferences. If there are no such limiting factors, an indefinite economic life may be justifiable.
- iii. Renewal and maintenance costs and intent to renew and continued use: For an intangible asset to have an indefinite economic life, the renewal costs associated with the intangible asset's legal rights should be low enough such that there would be intent to use and renew the intangible asset. For example, registered trademarks can usually be renewed continually as long as the fees are paid and the trademark remains in use. In addition, the intangible asset's maintenance costs should be economically beneficial. Therefore, there would be intent to incur such maintenance costs to retain the intangible asset's function, such that the asset can continue to provide economic benefits without being a financial burden and the intangible asset can continue to be used. For example, maintenance costs associated with a trademark, such as brand advertising, promotion and design expenses should be relatively low compared to the expected revenue generated by the products or services utilising the trademark.

Corroborating the appropriateness of the determined economic life

A7.10 In assessing the appropriateness of the economic life of the intangible asset, the valuer should consider the following non-exhaustive list of methods:

- i. Benchmark economic life of similar intangible assets: This method involves comparing the assessed economic life of the subject intangible asset with the economic lives of comparable intangible assets within the same industry. While economic lives of comparable intangible assets usually cannot be directly observed, accounting useful lives of comparable intangible assets may serve as reference points in estimating the economic life of the subject intangible asset. Some sources through which accounting useful lives of comparable intangible assets can be obtained include financial statements of publicly traded companies with similar intangible assets. By identifying and analysing comparable intangible assets, the valuer may gauge whether the estimated economic life is supportable.
- ii. Analyse economic life of previous versions of the individual subject intangible asset: For intangible assets that are updated or replaced over time, such as software or patented technologies, analysing the economic life of prior versions can provide insights into the potential economic life of the current asset. The valuer may review the historical performance, including how long previous versions remained competitive and generated economic benefits before being superseded or becoming obsolete. The historical economic life can aid in establishing a pattern or trend that might be indicative of the future economic life of the newer version of the asset. For example, for a software company that has released multiple versions of its patented technology, analysing the economic life of

earlier versions, such as how long Version 1.0 was actively used and generated revenue before the launch of Version 2.0, can help the valuer estimate the expected economic life of the current Version 3.0, especially if previous versions showed a consistent pattern of obsolescence after a certain number of years.

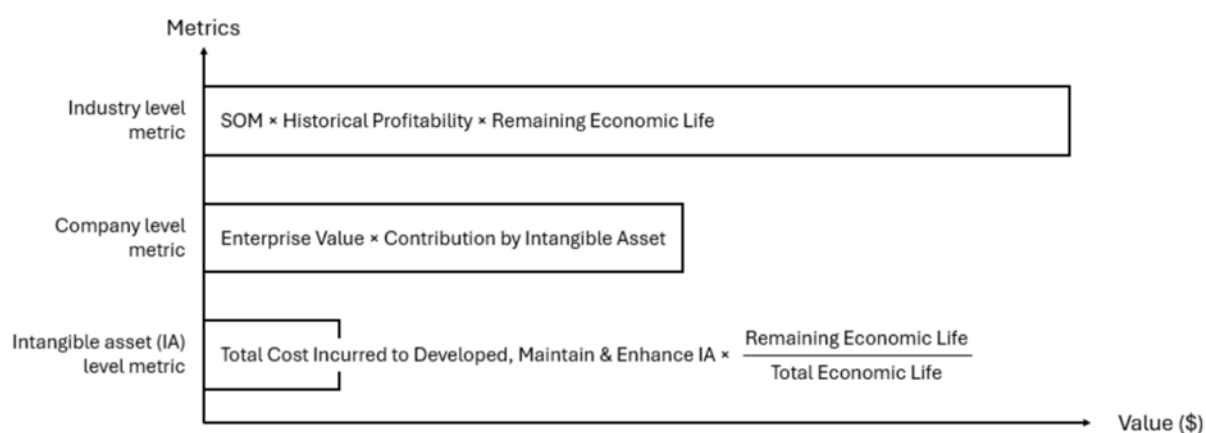
- iii. Compare the economic life of the intangible asset to the life of the product in which the intangible asset is used: Intangible assets may be used in specific products and the economic life of the asset may be closely linked to the lifecycle of that product. For example, a patented adhesive formula used in a particular line of construction materials may have an economic life that corresponds with the product life of those materials. If the construction materials are replaced by newer, more advanced products that offer better performance, the economic life of the patented adhesive formula may also shorten, reflecting the lifecycle of the construction materials and the industry's shift towards innovation. In determining the product life, it is important to understand the total length of the product lifecycle as well as the current position of the products or services in which the intangible asset is used in the product lifecycle, depending on the industry in which the intangible asset is utilised. For example, in rapidly evolving industries, such as technology, product lifecycles can be notably short due to swift advancements and high rates of innovation. Conversely, in more stable industries where product evolution occurs at a slower rate, such as consumer staples, products might reach the maturity or saturation stage of the lifecycle but continue to generate economic benefits without a clear sign of decline. Therefore, the product life may extend much longer.

8. Performing sensitivity and/or scenario analysis for significant risks

- A8.1 Sensitivity and scenario analysis can be critical in the valuation of intangible assets, providing a structured way to understand how variations in key inputs can impact the intangible asset's value. For some intended uses, such as intangible asset valuation for financial reporting, a sensitivity analysis is required if the valuation makes use of Level 3 inputs. Sensitivity analysis offers a quantifiable measure of risk, enabling valuers to communicate the degree of uncertainty and potential outcomes effectively to intended users. This helps stakeholders better consider risks in their decision-making. By testing valuations against a range of alternative inputs and assumptions, sensitivity and scenario analysis also increase the credibility and reliability of the valuation process.
- A8.2 In the following circumstances, valuers may consider performing a sensitivity and/or scenario analysis:
- i. High levels of uncertainty surrounding key valuation inputs: Uncertainty arises when inputs, whether observable like market data or unobservable like cash flow projections, have a high likelihood of variability due to external and inherent factors that make estimation difficult. This variability increases the range of possible values for each input, leading to a broader spectrum of potential valuation outcomes. For example, volatility in macroeconomic conditions might cause significant fluctuations in revenue projections.
 - ii. Change in input resulting in significant variation in intangible asset value: Certain key inputs can have a substantial impact on the intangible asset's value. Where appropriate, it may be useful to assess the effect of changes in these inputs on the valuation outcome
- A8.3 However, the decision to perform sensitivity analysis should be guided by the specific facts and circumstances of the engagement, relevant standards, and professional judgement, rather than being applied as a universal requirement.

9. Performing corroborative analysis for intangible assets valuation

- A9.1 When valuing intangible assets, each approach, whether income, market, or cost, has its own strengths and limitations. The choice of method should reflect the asset's characteristics, data quality, and valuation purpose. Valuers should apply professional judgement to select and implement the method or combination of methods that best suits the circumstances.
- A9.2 As a matter of good practice, valuers may also consider performing a corroborative assessment to support the reasonableness of the concluded value. Corroborative analysis is not an independent valuation method nor a secondary cross check. It works alongside the primary valuation approach to assess whether the concluded value is reasonable by considering reference points such as industry benchmarks, overall business value and other relevant metrics. Corroborative analysis is not mandatory and may be included where appropriate.
- A9.3 In practice, valuations of intangible assets often rely on judgemental assumptions and indirect evidence because direct market data or observable inputs are rarely available. This inherent subjectivity makes corroborative analysis particularly valuable. Through corroborative analysis, valuers can systematically assess their conclusions, identify potential inconsistencies and provide stakeholders with greater confidence in the results. By considering multiple perspectives including industry benchmarks, comparable companies and transactions, valuers help ensure that the final value reflects a well-substantiated conclusion.
- A9.4 In a corroborative analysis, the following indicators/metrics at the respective levels can be considered:



i. Industry level metrics:

In determining the total potential income for an intangible asset, the valuer can consider the different types of market sizes that the intangible asset can capture:

- Total Addressable Market (TAM):** The overall revenue opportunity available or the maximum market demand for a product or service if 100% market share was achieved. It represents the full potential of a market for a particular product or service without considering market constraints.
- Serviceable Available Market (SAM):** The segment of the TAM that is within the geographical reach of a company and that the company can serve with its products or services. SAM takes into account the limitations imposed by the company's current business model and distribution channels.

- (c) Serviceable Obtainable Market (SOM): Also known as Share of Market, this is the portion of SAM that a company can realistically capture or serve. SOM is influenced by factors such as competition, company capacity, market penetration strategies and certain characteristics like demographics, psychographics, and consumer behaviour.
- ii. Company level metrics:
In determining the value of the business owning/using the subject intangible asset, the valuer can consider the following indicators based on market evidence or transactions:
- (a) Market capitalisation/Enterprise value of the business owning/using the subject intangible asset that is listed on a stock exchange;
- (b) Recent round of fund raising for the business owning/using the subject intangible asset; and
- (c) Recently acquired purchase consideration of a business owning/using the subject intangible asset.
- iii. Intangible asset specific metrics:
The table below outlines the different classifications of intangible assets along with examples and key financial metrics/expenses associated with each of the five intangible asset groupings.

Categories of intangible assets	Examples of intangible assets	Key financial metrics / expenses
Marketing-related	Trademarks, Trade designs	Advertising & Promotion costs,
Customer-related	Customer contracts	Customer Acquisition costs
Artistic-related	Music synchronisation rights	Catalogue development costs
Contract-related	Exclusive distributor agreement	Minimum guarantee fee
Technology-related	Patented / unpatented technology	Research & Development costs

A9.5 Once the relevant metrics have been identified, there are two possible methods to perform a corroborative analysis.

Method 1: Relative positioning of subject intangible asset value versus industry/company/intangible asset level metrics

A9.6 Industry-level metrics, often represented by the total potential income can be conceptualised as the theoretical ceiling for the intangible asset's value.

A9.7 Company level metrics represents the business value for all employed assets because it encapsulates the collective worth of all the assets. It is therefore expected that the business value will be higher than that of the subject intangible asset value. However, in certain cases, the intangible asset's value may exceed the company-level metric, particularly when the asset has strategic importance or future growth potential beyond the current business model.

A9.8 At the other end of the spectrum, intangible asset-level metrics, typically represented by key development costs, serve as the floor value assuming no inefficiencies or external factors.

Together, these parameters define a range within which the intangible asset's value can be assessed and validated. Where the concluded value is assessed to be higher or lower than such a range, it should be accompanied by reasonable explanation.

A9.9 Appropriate adjustments can be made to ensure a like-for-like comparison with the parameters of the subject intangible asset. Industry-level metrics, such as market size, are typically presented as top-line figures on an annual basis. Adjustments are necessary to convert these figures into equivalent bottom-line numbers for the remaining economic life of the intangible asset. Metrics specific to the intangible asset can be calculated over the intangible asset's entire lifecycle and then pro-rated to reflect its remaining economic life.

A9.10 For example, we consider the corroborative analysis of SportX trademark used in athleisure apparel, whereby the primary approach of SportX trademark has been determined to be \$1.4 billion to \$1.6 billion under the income approach.

i. Industry level metrics:

The Total Addressable Market (TAM) for athleisure apparels is estimated to be \$400 billion. Considering SportX athleisure apparel is only sold in the APAC region, which accounts for 25% of TAM, the Serviceable Available Market (SAM) is calculated as $\$400 \text{ billion} \times 25\% = \100 billion . If we assume that SportX athleisure apparel is expected to capture 20% of SAM, the Serviceable Obtainable Market (SOM) amounts to $\$100 \text{ billion} \times 20\% = \20 billion . If we consider that SportX have a remaining economic life span of 10 years and the historical profitability for the sale of products of 12%, the adjusted equivalent profitability figure is $\$20 \text{ billion} \times 10 \text{ years} \times 12\% = \24 billion .

ii. Company level metrics:

As of valuation date, the company which owns the SportX trademark has a market capitalisation of \$14 billion with \$100 million net debt. Based on estimates from its financial statements, it is assumed that sales of SportX athleisure apparel in APAC contribute 18% of the company's overall revenue. Assuming all else being equal, the implied enterprise value in relation to the SportX trademark is $(\$14 \text{ billion} + \$100 \text{ million}) \times 18\% = \2.5 billion .

iii. Intangible asset level metrics:

As the intangible asset relates to the SportX trademark, advertising and promotion (A&P) is deemed to be a suitable expense for the intangible asset metric. The brand building phase of the trademark took 3 years. As of valuation date, the trademark has been used for the past 10 years and has just been renewed for another 10 years.

The total A&P cost over the initial 3 years of brand building phase amounted to \$270 million and the relevant annual maintenance expenses are estimated to be \$50 million.

Based on the above, the total A&P expenditure over the expected economic life of the intangible asset is expected to be $\$270 \text{ million} + (50 \text{ million} \times 20) = \$1,270 \text{ million}$. The total A&P expense is then adjusted based for the remaining life of the intangible asset (10 years). The adjusted key financial metric is $\$1,270 \text{ million} / 20 \text{ years} \times 10 \text{ years} = \635 million .

Based on these data points, the corroborative analysis benchmarks the primary valuation against a directional range established by relevant reference points, namely, the intangible asset level metric floor of \$635 million assuming no economic obsolescence, the company level

metric of \$2.5 billion, and the theoretical ceiling of \$24 billion. This approach provides directional validation, supporting the reasonableness of the primary valuation by ensuring it aligns with key financial indicators rather than suggesting that these reference values represent the actual asset value.

- A9.11 This example does not take the time value of money into account. Where applicable, the time value of money should be considered.

Method 2: Peer Benchmarking of subject intangible asset against comparable companies or transactions via units of comparison

- A9.12 Units of comparison are standardised metrics used to evaluate and compare different assets. These units help in making meaningful comparisons by providing a common basis for analysis. Units of comparison are particularly useful in real estate, financial analysis, and various other fields where these assets need to be assessed relative to each other. The common units of comparison for an intangible asset are:

- i. Intangible asset value as a percentage of business value is a measure of how much a company's intangible assets contribute to the overall worth of the business.
- ii. Intangible asset value as a percentage of intangible asset level metric measures how much value is created from the money spent on the development of the asset

- A9.13 For example, assuming the value of the intangible asset is \$1.4 billion to \$1.6 billion and the same facts as described above, a valuer may benchmark the subject intangible asset against selected comparable transactions using relevant units of comparison.

- A9.14 The implied range based on the subject intangible asset units of comparison are:

- i. Company-level metric: $\$1.4 \text{ to } \$1.6 \text{ billion} / \$2.5 \text{ billion} = 56\% \text{ to } 64\%$
- ii. Intangible asset-level metric: $\$1.4 \text{ to } \$1.6 \text{ billion} / \$635 \text{ million} = 2.2x \text{ to } 2.5x$

Rationalisation of intangible asset value relative to the corroborated values

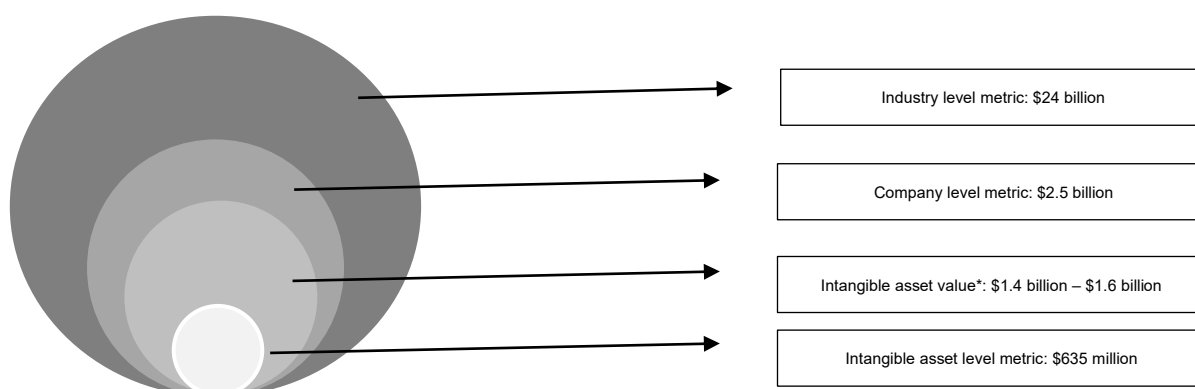
- A9.15 As part of the above 2 methods, valuer may consider a multitude of factors to rationalise the intangible asset value relative to the corroborated values. Some of the considerations are:

- i. Growth potential: An asset that is central to a company's growth and has the potential to open new markets or expand existing ones may indicate that its value is closer to the higher end of the corroborated value range.
- ii. Regulatory environment and legal protection: The absence of a supportive regulatory environment with robust legal protections can potentially decrease the perceived stability and value of the intangible assets and may indicate that its value to be of a lower end of the corroborated value range.
- iii. Financial performance: High profit margins associated with products or services linked to the intangible asset suggest a competitive advantage, allowing the company to command premium pricing or reduce costs and may indicate that its value to be at a higher end of the corroborated value range.
- iv. Life cycle: Intangible assets that are in the early stages of development or nearing the end of life may be indicative of its value to be of the lower range, whereas intangible assets that have commercialised and still have a long monetisation period may be indicative that its value to be of a higher end of the corroborated value range.

- v. History of investment: Significant expenditures in the marketing and development of the intangible asset may enhance the asset's value. A company that consistently invests in its intangible asset may be indicative that its value to be of a higher end of the corroborated value range.

A9.16 In relation to Method 1, assuming the value of the intangible asset is \$1.4 billion to \$1.6 billion and the same facts as described in the above metrics adjustments, the following observations were made to the relative positioning of intangible asset value as compared to the other metrics:

- i. The intangible asset value of \$1.4 billion – \$1.6 billion is higher than its asset-specific metric (floor value) of \$635 million, as the income approach captures the asset's growth and income-generating potential.
- ii. The intangible asset value is lower than the company level metric of \$2.5 billion (ceiling value) due to the following:
 - (a) The intangible asset contributes only in the marketing and branding part of the entire value chain of activities for the sale of product, which include design and development, sourcing and manufacturing, marketing and branding, distribution and retail, sales and customer service.
 - (b) The intangible asset only has 10 years of economic life remaining as compared to the company level metric which implicitly accounts for indefinite life due to the going concern assumption.
- iii. The intangible asset value is lower than the industry level metric of \$24 billion (ceiling value) due to the following:
 - (a) The industry level metric inherently assumes the maximum potential that the company can realistically capture. The intangible asset value is lower as there is potential for future growth towards the industry-level metric.
 - (b) Similar to the company-level metric, the intangible asset contributes only to the marketing and branding part of the entire value chain.



** The intangible asset value refers to the value determined using a primary valuation approach.*

A9.17 In relation to Method 2, these units of comparison should be interpreted as contextual reference points rather than independent cross-checks or separate valuation conclusions. Benchmarking against comparable companies or transactions helps the valuer assess whether the implied positioning of the subject intangible asset is broadly consistent with market evidence and whether the calculated value appears reasonable in light of the asset's relative contribution, risk profile, and economic characteristics.

A9.18 For example, a company-level metric of 56% to 64% of business value may indicate that the intangible asset is a primary value driver within the business. Similarly, an intangible-asset-level metric of 2.2x to 2.5x may suggest that the asset is generating returns above its accumulated expenditure. These observations should not be treated as conclusive in themselves, but rather as inputs to the valuer's overall assessment of reasonableness, having regard to the specific facts and circumstances of the engagement.

10. Disclosure of subsequent events post the valuation date

- A10.1 The disclosures within a valuation report should be fit for purpose that reflects the intended use and needs of its users. While it is good practice for valuers to make reasonable enquiries about subsequent events to provide additional context, such disclosure is not mandatory responsibility and may be included where appropriate, as hindsight information should not influence the valuation conclusion. Where valuation purpose-specific needs arise, disclosure of subsequent events may be included in the valuation report. Such disclosures may be more relevant for purposes such as financing or investments involving intangible assets, where stakeholders may benefit from awareness of events subsequent to the valuation date that could impact their assessment of the intangible asset.
- A10.2 Unlike a tangible asset whose returns hinge on its physical attributes, an intangible asset does not have physical substance and derive their value from their unique characteristics. However, such characteristics are often affected by external factors such as market dynamics, leading to significant fluctuations in the returns generated by an intangible asset over short periods of time.
- A10.3 Subsequent events are occurrences or developments that take place after the valuation date but before the issuance of the valuation report. These events may significantly influence the relevance of the valuation conclusions post valuation date.
- A10.4 Disclosing subsequent events that may affect the value of intangible assets enhances the relevance and comprehensiveness of the valuation report and allows users to make more informed decisions.
- A10.5 Some examples of company-specific and/or external events:
- i. Market and economic events
 - (a) Announcement of trade tariffs or sanctions by a major economic power: The announcement of the United States to impose tariffs on steel and aluminium imports could trigger immediate market reactions and concerns about potential trade wars. Companies with patents or proprietary technology in industries dependent on these materials may face increased production costs and supply chain issues
 - (b) Interest rate hike by the Federal Reserve: An interest rate hike by the Federal Reserve announced unexpectedly to combat rising inflation can cause an immediate change in intangible asset value. This abrupt increase in borrowing costs can lead to an immediate revaluation of intangible assets as companies face higher capital costs and altered discount rates.
 - ii. Legal and regulatory changes:
 - (a) Intellectual Property Legislation: Changes in intellectual property laws can have a significant impact on the value of patents and copyrights. For example, stricter patent laws can increase the value of a company's patents by providing more robust protection against infringement.
 - (b) Data Protection Regulations: The introduction of regulations like the General Data Protection Regulation (GDPR) to standardise data protection in the European Union can impact the value of customer databases. Companies that fail to comply with such regulations may face fines and a loss of customer trust, thereby reducing the value of their customer-related intangible assets.

- iii. Technological advancements
 - (a) Innovation: The development of new technologies can increase the value of patents and proprietary technology. For example, a breakthrough in battery technology can significantly enhance the value of patents held by a company in the electric vehicle industry.
 - (b) Obsolescence: Conversely, technological advancements can also lead to the obsolescence of existing intangible assets. For example, the rise of streaming services has reduced the value of physical media distribution rights owned by entertainment companies.
- iv. Company-specific developments
 - (a) Drug Approval: For pharmaceutical companies, the approval of a new drug by regulatory authorities can lead to a substantial increase in the value of patents and related intellectual property. The exclusivity to market a breakthrough treatment can translate into significant revenue, enhancing the value of the company's intangible assets. Conversely, the rejection of a new drug by regulatory authorities can lead to a significant decrease in the value of patents and related intellectual property. The inability to market a treatment that has failed to meet the necessary safety and efficacy standards can result in substantial financial losses as the resources invested in research and development may not yield a return.
 - (b) Reputation Damage: Events that damage a company's reputation, such as scandals or product recalls, can lead to a significant decrease in the value of brand-related intangible assets. For example, a major data breach can erode customer trust and loyalty, reducing the value of customer relationships.

A10.6 Valuers should exercise professional judgement to determine whether a change is significant enough to warrant a revision, considering whether the new facts were known or knowable as of the valuation date. Known or knowable information pertains to facts, conditions or observable information which exists as of the Valuation Date and is available or would reasonably be available to the valuer through routine inquiry or due diligence. The valuer should consider whether the information would have led to a different conclusion had they been known at the time of the original valuation.

11. Additional report disclosures when performing intangible assets valuation

- A11.1 Accurate and transparent reporting of the intangible asset valuation process helps improve comparability and consistency across valuation reports, thereby enabling stakeholders to better understand the basis of the valuation and make more informed decisions. While additional report disclosures beyond those provided in the IVS may not be mandatory, they may be included as a matter of good practice to assist users in understanding the valuation.

Appendix B: Additional information

AICPA Accounting and Valuation Guide, Business Combinations (2024)

Retrieved from: [Accounting and Valuation Guide - Business Combinations | Publications | AICPA & CIMA](#)

ASA Business Valuation Standards (2022)

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IAS 38 – Intangible Assets (2025)

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