

Accounting for Intangible Assets

Seminar Discussion Paper

Overview

Intangible assets are already too valuable for investors to ignore. In 2010 more than 80% of the market value of the S&P 500 was made up of intangible assets (Ocean Tomo). Intangible assets are highly valuable and yet investors are spending much more time and effort understanding and managing tangible assets. This imbalance will be addressed eventually. We are looking to understand if actuaries should try to be part of the solution.

There is no shortage of evidence to show the relevance of intangible assets and the impact of their volatile nature on the markets they operate in. But the impact of this volatility appears to be distorted by the inconsistency in the accounting treatment of internally generated intangible assets compared to ones that were acquired in a business transaction.

Actuaries appear to have the skills, and some the inclination, to play a role in the future of accounting for intangible assets. But the market for practitioners who work in this area is different from the traditional areas of expertise of actuaries. The wide range and nature of the assets being valued mean that actuaries will need to acquire practical skills that are not being taught in the actuarial exams or in the traditional areas of actuarial work.

Purpose

The purpose of this paper is the same as that of the seminar: to stimulate a balanced, realistic discussion on whether actuaries should be looking to add value to AFIA from our core experience, or whether other finance professionals are better suited.

Unless the references indicate otherwise, this is the work of the Accounting for Intangible Assets Working Party and the views expressed are our own.

The presenters would like to express our thanks to other members of the Working Party who have offered valuable time in preparing this material:

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Contents

Chapter 1: The environment.....	4
Chapter 2: Considerations for investors.....	12
Chapter 3: The market for accounting for intangible assets.....	18
Chapter 4: Involvement of the actuarial profession.....	23
Appendix A: Analysis of survey responses.....	27
Appendix B: Survey questionnaire	34
Appendix C: References	41

Chapter 1: The environment

When you measure what you are speaking about and express it in numbers, you know something about it, but when you cannot (or do not) measure it, when you cannot (or do not) express it in numbers, then your knowledge is of a meager and unsatisfactory kind.

Sir William Thompson, Lord Kelvin (1824-1907)

Size

It is difficult to overstate or ignore the relevance of intangible assets in terms of their presence in the economies of developed countries. In 2010, Ocean Tomo estimated that more than 80% of the market value of the S&P 500 was made up of intangible assets¹.

Not all valuable intangible assets are widely publicised but one example that is closely tracked is brand value. The following information is available from Interbrand²:

2014				
Rank	Brand	Region/Country	Brand Value \$m	Change in Brand Value
1	Apple	United States	118 863	21%
2	Google	United States	107 439	15%
3	Coca-Cola	United States	81 563	3%
4	IBM	United States	72 244	-8%
5	Microsoft	United States	61 154	3%
33	HSBC	UK	13 142	8%
73	Burberry	UK	5 594	8%
86	Johnnie Walker	UK	4 842	2%

The chart above shows that the most valuable brands are all located in the United States. The top three UK brands ranked 33rd, 73rd and 86th respectively. In addition to the sizes of the brands, their volatility is shown clearly. Without a doubt the differences in value have far-reaching impacts in the markets where the owners of these brands operate.

Classification of intangible assets

Intangible assets are often described by example. This paper addresses the accounting aspects of intangible assets. The international accounting standard covering intangible assets is IAS38. In its overview of IAS38, Deloitte describes the following as examples³:

- Computer software
- Patents
- Copyrights
- Motion picture films
- Customer lists
- Mortgage servicing rights
- Licenses
- Import quotas
- Franchises
- Customer and supplier relationships
- Marketing rights

Other examples include trade secrets, trade names and trademarks, relationship capital, designs, non-compete agreements, employment contracts, know-how and some artistic creations such as recorded music, songs, movies and plays.

There is no exhaustive list of intangible assets. Instead, they are classified by defining them. IAS38 defines an intangible asset as *an identifiable non-monetary asset without physical substance*⁴. The International Valuation Standards Council (IVSC) defines an intangible asset as *a non-monetary asset that manifests itself by its economic properties. It does not have any physical substance but grants rights and economic benefits to its owner or the holder of an interest*⁵.

There have been several attempts to arrange intangible assets into separate classes. Some of the classifications are included below, highlighting the important distinctions.

Standard setting bodies

In addition to the International Accounting Standards Board (IASB) who set the International Accounting Standards (IASs) including IAS38, and also the International Financial Reporting Standards (IFRSs), the International Valuation Standards Council (IVSC) is an important authority on standardisation in the treatment of intangible assets. Through its standard-setting body the International Valuation Standards Board (IVSB), the IVSC produces Guidance Note 4 (GN4) which covers intangible assets. Their classification of the principal intangible assets can be summarised as follows:

Unidentifiable intangible assets

1. Goodwill

Identifiable intangible assets

- 2. Marketing-related**, including trademarks, trade names and internet domain names
- 3. Customer or supplier-related**, including advertising agreements, customer lists and employment contracts
- 4. Technology-related**, including databases, software and formulae, and
- 5. Artistic-related**, including plays, books, films and music.

In 2009 the IVSB published its exposure draft on Guidance Note 16 (GN16): Valuation of Intangible Assets for IFRS Reporting purposes, to highlight any valuation reporting requirements that are specific to IFRSs. In March 2014 the IVSC and the IFRS Foundation produced a joint *Statement of Protocols for Cooperation on International Financial Reporting Standards and International Valuation Standards*⁶, outlining their common goals and contrasting their priorities where different.

Intellectual Property or not?

Intellectual property (IP) is an important sub-grouping within intangible assets. Merriam-Webster⁷ defines it as property (as an idea, invention, or process) that derives from the work of the mind or intellect; also: an application, right, or registration relating to this.

Common examples include:

- Copyright
- Patents
- Trademarks
- Industrial designs, and
- Traditional names, including food names associated with a specific region.

While all IP can be considered intangible assets, not all intangible assets are IP. A company's supplier agreement network is an example of an intangible asset that is not IP. From an accounting perspective an intangible asset does not necessarily need to be owned by the entity recognising it. Instead there is a requirement in IAS38 that it be *probable that the expected future economic benefits that are attributable to the asset will flow to the entity*.

Special treatment of goodwill as a balancing item

Both IAS38 of the IASB and GN4 of the IVSC attach a special meaning to the term goodwill. The IVSC defines goodwill as any future economic benefit arising from a business or a group of assets which is not separable from the business or group of assets in its entirety. The IVSC also considers goodwill to be a residual amount remaining after the value of all identifiable tangible, intangible and monetary assets less liabilities and potential liabilities have been deducted from the value of a business. IAS38 states that the definition of an intangible asset requires an intangible asset to be identifiable to distinguish it from goodwill. Our interpretation is that the IVSC recognises goodwill as a non-identifiable intangible asset and IAS 38 does not consider it an intangible asset. Regardless of the definition, it appears that goodwill is so closely related to intangible assets in its role on the balance sheet that its definition as an intangible asset, or not, is less important. It remains a balancing item to reconcile the company's tangible and intangible net assets to its market value. Goodwill is often measured as part of a corporate transaction such as a merger or acquisition, where the value of an entire business or business unit, as opposed to only its market capitalisation through its traded shares, becomes known. Goodwill will be discussed in more detail later in this paper.

First time recognition

Business combinations vs internally generated assets

When recognising an intangible asset for the first time, IAS38 places much stricter requirements on the asset if it is generated internally compared to if it is acquired as part of a business combination. Paragraph 63 of IAS 38 states that: "Internally generated brands, mastheads, publishing titles, customer lists and items similar in substance shall not be recognised as intangible assets". However, it appears that these can be recognised if they were passed on as part of a corporate sale transaction. This approach is perhaps justifiable on the basis that a sale transaction offers a way to get an idea of the value of such assets in the open market. On the other hand, one sale transaction is not evidence of an active market for the intangible asset that is being valued. And, the value offered for the intangible asset in question might not be easily guessed from the money that changed hands for the entire transaction.

Internally generated intangible assets

The preferential treatment for recognising intangible assets as part of a business combination has an obvious weakness: internally generated intangible assets may be just as valuable, so why should a company not be allowed to take credit for them just because they have not been bought or sold?

Since 2004, the treatment of internally generated intangible assets has been the subject of a research project by the Australian Accounting Standards Board (AASB), at the instigation of the International Accounting Standards Board (IASB).

At their December 2007 meetings, the IAS Board and the FAS Board acknowledged the importance of addressing the accounting issues relating to intangible assets, including the inconsistent treatments for particular types of intangible assets depending upon the manner in which they arise. However, at the time they chose not make addressing the inconsistencies a priority in the light of the other commitments they had at the time.⁸

In 2001, Upton observed that: “The importance of intangible assets is the distinguishing feature of the new economy. By and large, existing financial statements recognise those assets only when they are acquired from others. Accounting standard-setters should develop a basis for the recognition and measurement of internally generated intangible assets.”⁹ This has not happened yet.

Recognition Criteria

Identifiability is one of the key requirements that a company needs to meet in order to recognise an intangible asset on its balance sheet. If an asset (e.g. a patent or a copyright) cannot be identified easily by different parties such as actuaries, accountants, auditors and regulators, it would be difficult for them to verify the value of such asset. If that’s the case, auditors and regulators are unlikely to allow the asset to be shown on the balance sheet.

Under IAS38, an asset meets the identifiability criterion in the definition of an intangible asset when it:

- (a) is separable, i.e. is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, asset or liability; or
- (b) arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

Also, an intangible asset shall be recognised if, and only if:

- (a) it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity; and
- (b) the cost of the asset can be measured reliably.

The probability recognition criterion is always considered to be satisfied for intangible assets that are acquired separately or in a business combination. This is because when a company (Company A) tries to buy another company (Company B), it is very likely that the purchase price offer by Company A would be higher than the value of Company B stated on the balance sheet. It can be due to a recognition of a highly successful brand name or a quality customer service in Company B. The excess of the purchase price over the book value would then be classified as Goodwill in Company B’s balance sheet. Similar situation can arise when Company A only purchases part of Company B.

According to IAS 38, an intangible asset shall be measured initially at cost.

Valuation

Accounting for intangible assets is certainly not a new topic^{10,11} and it has long been appreciated that there are alternative ways in which to value intangible assets¹². Accounting standards such as the International Accounting Standard 38 aim to set various guidelines to help enable consistency when accounting for intangible assets. Although the International Valuation Standards Council (IVSC) produces their own guidance notes on the valuation of intangible assets, the focus of this paper is accounting for intangible assets and accordingly we will keep to the accounting standards perspective.

International Accounting Standard 38

International Accounting Standard 38 (IAS 38) is an accounting standard¹³ that prescribes how to account for intangible assets that have not been covered in another standard. Under this accounting standard, intangible assets that meet the specified criteria should be measured initially at its cost of acquisition. Subsequent accounting should depend on the length of the intangible asset's useful life.

Useful life

The reporting entity needs to assess if the intangible asset has a finite useful life or an indefinite useful life.

If the intangible asset is deemed to have a finite useful life, then the depreciation of the cost less residual value of the intangible asset should be allocated on a systematic basis over the length of the useful life. Amortization for an intangible asset with a finite useful life only begins when the asset is available for use.

On the other hand, if the intangible asset has an indefinite useful life, then it should not be amortized but it should be reviewed annually for impairment (see IAS 36 for further details on accounting for the impairment of assets¹⁴).

Cost or revaluation model

Under IAS 38, an entity, after initial recognition, should account for an intangible asset using either the cost model or the revaluation model. The cost model involves the intangible asset being carried at cost less any accumulated amortisation and impairment losses.

The revaluation model involves the intangible asset being carried (shown on the balance sheet) at the re-valued amount of the fair value of the intangible asset at the revaluation date less any accumulated amortisation and impairment losses since the last revaluation date.

How to choose between the two options provided under IAS 38?

IAS 38 prescribes that the 'fair value' of the intangible asset to be used in the accounting calculation is determined by referring to an active market. This means that only those intangible assets for which a suitable active market exists can be valued using the outlined revaluation model. IAS 38 provides examples of cases where they may be active markets for an intangible asset - e.g. the market for the intangible assets that are taxi licenses. However, since finding an active market for an intangible asset may not always be possible, the cost model approach is commonly adopted.

Valuation Methods

There are three four main approaches that have developed over time, which can be used to value intangible assets¹⁵. These methods are not unique to IAS38 and their use for IAS38 will need to be justifiable in the context:

1. The Market Method
2. The Income Method
3. The Replacement Cost Method
4. The Options Method

All these approaches have some fundamental differences between them and it is these differences which mean that different methods may be used depending on which industry the intangible asset belongs to. Clearly, there is a level of subjectivity when using the various approaches to determine the fair value of an intangible asset. However, it is precisely in such scenarios where there is uncertainty that actuaries can potentially add value to the accounting of intangible assets.

Market Method

This method is also known as the transactional method. The market approach aims to fairly value an asset through considering similar assets which have been involved in recent transactions within an active market. We have already discussed a significant limitation of using a market-based approach to value an intangible asset - essentially, there will be difficulties in generally finding a suitable active market to price intangible assets which are of an unique or specialised form.

Income Method

The second method listed above is the income method (also known as the discounted cash flow method), which involves discounting future cash flows due to be received which are attributed to the intangible asset. As with any discounting exercise, key parameters such as discount rates and discounting times are very important when considering the income method. Common questions that need to be considered before using this approach would be: what is the true useful life of the intangible asset? Which discount rate should be used? How can the future cash flows be determined? Also, which cash flows can be allocated to which intangible assets when considering a business combination situation? What risks are there to these future cash flows and how should they be accounted for?

Replacement Cost Method

The third method determines the value of the intangible asset by calculating the amount that would be needed in order to replace the intangible asset being considered. This may be a difficult approach to take in practice, especially in circumstances where the costs are unknown or the intangible asset has been produced gradually over a significant period of time.

Options Method

The final method, the Options Method, is a name for a group of methods emerging in financial techniques. By treating an intangible asset as a financial instrument which could be constructed to replicate the income from the intangible asset, they use similar techniques as for valuing those financial instruments to arrive at a market-related fair value for the intangible asset. The techniques include option pricing, stochastic simulation and decision tree models.

An Options Method, in one form or another, has the potential advantage that the derivatives it models its behaviour on could have an actively traded market, making a stronger case for justifying the calculated value as market-related.

Chapter 2: Considerations for investors

Other measures of intangible asset value

Although this paper focuses mainly on accounting for intangible assets, there are also other measures of value that relate to assets without physical substance. They are not recognised in the accounting regulations but they are described below.

Accounting standards evolve to keep up with the economic concept of value as understood by human beings. There is a chance that concepts like the ones below could make it into formalised reporting one day. Indeed, there is evidence that investors, to the extent they have a choice whether to rely on accounting figures or to estimate their own measures of value, are relying on them already.

Like formal accounting measures these methods have a strong focus on the income generated by the asset, however defined.

Concept mapping techniques

According to Martínez-Torres, knowledge-based organisation can use concept mapping techniques to identify intangible assets¹. In a knowledge-based organisation, intellectual capital is more important than the traditional physical assets in generating value to the organisation. One example of knowledge-based organisation is universities, where their real value lie in the knowledge of the people who work in it, the way this work is developed, or the links to other people or institutions. The outcomes of universities are not measured in terms of profits or material goods, but in terms of research, publications and the quality of their graduated students.

According to Vega-Riveros et al.², a concept map is a form of structured conceptualisation that can be used by groups to develop the conceptual framework that can guide an evaluation, an exercise, a plan. It can be developed by a standardised procedures that make sure of quantitative and qualitative features. It is summarised by Martínez-Torres in his research:

“First, the [group of] participants are required to generate information through brainstorming. Next, the data are structured, quantified and analysed using a double statistical procedure that includes a multidimensional scaling and clusters analysis. Results of concept mapping show the main categories of mathematically determined ideas derived from the participants’ input. Each subset of ideas is represented on the map in cluster form. Clusters closest to each other are said to be more directly linked. In summary, the maps represent the opinion of the participants.”

The use of this technique is important for knowledge organisations such as universities. They are not measured by the strength of their annual reports and could be financed by public money. The public needs to know how this money is being used. This technique can provide information for the management of intangible resources and information for external

stakeholders about the development and produce use of the intangible asset. It also allows the comparability between different knowledge-based organisations and enables their quality assurance, so that they can organise their resources more efficiently.

From the income statement

Stephen Penman argues that intangible asset can also be recognised from the income statement³. He points out that even though intangible assets are missing from the balance sheet, earnings from intangible assets flow through the income statement. Value can be established by measuring the asset value directly but also by capitalizing the earnings from the asset. The point that earnings give the value of intangible assets is implicitly acknowledged in statements of those who claim the existence of intangible assets.

This means that investors can estimate the value of unrecognised intangible assets by doing their own calculations from the income statement and incorporating the answer in the price they are willing to pay for the company.

Penman also argues that putting an intangible asset on the balance sheet can only be helpful if there is growth in that asset. The value of intangible assets can be estimated from the standard residual earnings model below:

$$\text{Value of Intangible assets} = \text{Book Value} + \frac{[\text{Earnings} - (r * \text{Book Value})]}{(r - g)}$$

where:

r = required return

g = expected growth rate for earnings from intangible assets

The book value in the formula refers to the net asset value shown on the balance sheet.

The value calculated from this formula can be compared with the market value of the company. The difference between the market value and the calculated value can be regarded as the estimated value of intangible assets of the company.

However, the result from this formula may be unrealistic if the required return and expected growth rate for earnings from intangible assets are equal to each other. In an extreme situation, if both of them are equal, the formula will not work and the investors will need to use other methods to carry out the valuation of the intangible assets.

Use of a production function

Gu and Lev provided an approach to estimate the value of intangible assets that are not recorded on a company's balance sheet⁴. The methodology is based on the economic notion of "production function", in which the value of intangible asset is estimated by subtracting the normal returns on physical and financial assets.

Under this approach, Gu and Lev used a modified economic performance of a company, which is originally calculated as:

$$\text{Economic Performance} = a * \text{Physical Assets} + b * \text{Financial Assets} + c * \text{Intangible Assets}$$

where a, b and c are the contributions of a unit of asset to the company's performance.

They pointed out that the original measure is strictly based on past earnings. Therefore it would miss a significant proportion of future growth by items such as investment on Research & Development (R&D) and employee training, which are actually examples of intangible assets. Hence Gu and Lev believe that "normalised earnings", which is the average of past and future earnings, is a better measure of economic performance.

Then given the value of economic performance, and the values of physical and financial assets from the company's balance sheets or annual reports, it would not be difficult to derive the value of the intangible assets. This value of intangible assets represents the contribution of intangible assets to the company's performance, which has been given a name called "Intangible-driven earnings" (IDE). Gu and Lev suggested using 7% and 4.5% for physical and financial assets respectively for generic calculations, and company-specific values can be used if the data is available.

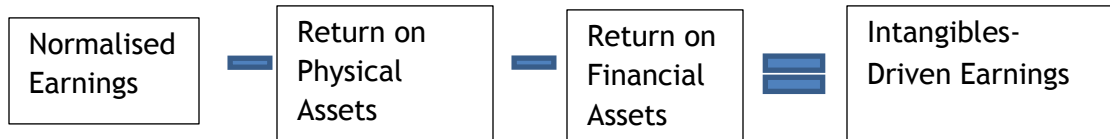
Finally, a series of intangible-driven earnings are projected over three future periods based on a three-stage valuation model, in which different values of economic growth are assumed. By discounting these projected IDE series using a discount rate which reflects the above-average riskiness of these earnings, the estimate of intangible capital of a company can be produced.

Gu and Lev showed that this approach can be useful to investor seeking information on future performance of intangible assets. This can also be used to identify overvalued and undervalued stocks.

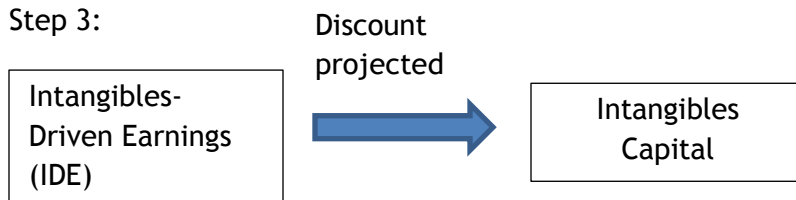
Step 1:



Step 2:



Step 3:



Acceptance of intangible assets by investors in buy and sell decisions

Considerations

Due to the complexity in valuing intangible assets, and the prescriptive nature of the international accounting standards when it comes to intangible assets, it can be difficult for investors to determine if the value of the intangible assets state on financial reports truly reflect the value of them in the company. As a results of this asymmetry of information, Barth, Kasznik and McNichols argues that analysts will have more incentive to spend more time and effort to evaluate companies with higher intangible assets⁵.

Lev found that investors systematically underestimate the value of companies which has high proportion of intangible assets such as R&D expenditures⁶. This gives more incentive to these companies to value their intangible assets in order to influence stock price and hence raise company's market value and reputation. Andriessen argues that it can also address the problems of poor information to investors about the real value and future performance of the company⁷. If a company does not provide enough insight of its intangible asset to the public, it would be more difficult to raise capital from investors or banks.

Intangible assets present in subsidiaries and parent companies and how they affect the rest of the group

Delios & Beamish proposed in 2001 that intangible assets which generate advantages in the home country can also be used to exploit the overseas markets⁸. Intangible assets such as brand name can motivate firms to undertake geographic diversification because growth into new markets does not depreciate the home market value of intangible assets. They have conducted a research on a sample of 3,080 subsidiaries of 641 Japanese firms and found that the presence of intangible assets can enhance the profitability of the subsidiaries.

These parent companies have achieved superior performance by successfully export their unique capabilities to their foreign subsidiaries. Their investment in R&D and advertising can create intangible assets such as patents and an innovative brand which give them an advantage over local competitors. This can in turn enhance the financial performance and the original intangible assets from the group.

There are cases that parents companies place their intangible assets in foreign subsidiaries where the corporate tax rate is low. For example, Pfizer and Microsoft has moved a majority of their R&D units and patents to Ireland. Dischinger and Riedel argues that there are two advantages by doing so⁹. First of all, there can be saving in taxes. Secondly, company can optimise profit shifting strategies through the distortion of transfer prices for intangible assets within the firm. They may overstate the transfer price for the intangible assets at relatively low expected costs and hence shift profits to the country with low tax rate. This is because the value of intangible assets may not be easily verified by tax authorities.

Microsoft has accomplished this through a company called “Round Island One” in Ireland¹⁰. This has been reported by Wall Street Journal in November 2005:

“Round Island One provides a structure for Microsoft to radically reduce its corporate taxes in much of Europe, and similarly shields billions of dollars from U.S. taxation.”

“Much of Round Island's income is licensing fees from copyrighted software code that originates in the U.S.”

“Through a key holding, dubbed Flat Island Co., Round Island licenses rights to Microsoft software throughout Europe, the Middle East and Africa. Thus, Microsoft routes the license sales through Ireland and Round Island pays a total of just under \$17 million in taxes to about 20 other governments that represent more than 300 million people.

Microsoft's effective world-wide tax rate plunged to 26% in its last fiscal year [2004-05] from 33% the year before [2003-04]. Nearly half of the drop was due to “foreign earnings taxed at lower rates,” Microsoft told the Securities and Exchange Commission in an August filing. Microsoft leaves much of its profit in Ireland, including \$4.1 billion in cash, avoiding U.S. corporate income taxes. But it still can count this profit in its earnings.”

“Microsoft and others now are going further. Microsoft delivers its Windows products to European customers straight from Ireland, and the profits go straight back to Ireland.”

Chapter 3: The market for accounting for intangible assets

Fee estimates

Unlike tangible assets, valuation of intangibles is multi-faceted and complex in nature and requires a substantial amount of subjective judgment in many cases.

There is no industry standard or fixed fee structure for valuation of intangibles. It may vary from engagement to engagement depending on the complexity, expertise required, client size and expected outcome of the project. The client size has been found to be an important determinant on the fee structure. Francis and Simon (1987)¹ showed that client size is clearly a significant issue with respect to the overall fee model being estimated. Some engagements are priced on the basis of the outcome of the project. For example, a company having insignificant tangible asset in compared to intangibles might face difficulty borrowing money from banks or other sources. The valuator might charge this engagement on the basis of the outcome its valuation like some percentage on the amount of the loan if successful or just some fixed fee if unsuccessful in getting the loan.

However, the overall scope of the valuation project, cross-disciplinary specialist knowledge it requires and the availability of specialists, the potential outcome seem to be very important while estimating fees for the valuation of intangibles.

According to Swanson, intangible assets has a significant positive effect on audit fees for large banks in the United States.² This is because measures of risk are very important in determining the cost of auditing, due to the risk of litigation against an auditor. There is more chance for an auditor to estimate the value of an intangible asset incorrectly. Therefore auditors would include a margin in audit fees in order to compensate the risk. Moreover, it may be more costly for auditors to evaluate an intangible asset with significant value.

Intangible asset risks

In this section, we consider the key risks that may face an individual/entity that values intangible assets. The unique and specialised nature of intangible assets means that there will be circumstances in which evaluators are faced with considerable difficulties in determining their value. The underlying variability of certain intangible assets have as much of an impact on those who report their value as on the entities that control their income. There is likely to be uncertainty/difficulty in the following areas:

Identifying and recognising all intangible assets

This may also involve difficulties in separating intangible assets or determining which benefits are due to the intangible assets and not because of other factors. These difficulties are lessened by the use of the relevant professional guidance (for instance, the recognition criteria provided by IAS 38).

As an example, consider a company with a strong brand name that has developed a strong and unique product. How much of the company's profits attribute to the fact that the company has the intangible asset of the brand name and how much of the profits can be attributed to the fact that the company has a unique product? In such cases, there may also be interdependencies between different factors - i.e. perhaps the strong brand name is a result of the development of this unique product. In such instances, the prospects of the product may also need to be considered during valuations.

Determining which valuation method to select

Which, if any, of the valuation methods discussed earlier should be used? Valuing the same intangible asset using different valuation methods can lead to significantly different results. IAS 38 provides useful guidance in this respect, and provides guidance between choosing the cost model or the revaluation model.

Verification of the values by an auditor may reduce the risk of unjustified valuations. Also, comparison with similar intangible assets on the market can be used as a sense check, although it may be difficult to find another intangible asset for a like-to-like comparison.

Determining key parameters required within the calculations when using a valuation method

For instance, when considering the discounted cash flow method, the cash flows, the discount rate and/or the length of time that needs to be discounted over may be far from objective to determine.

The more distant cash flows are more uncertain so the estimations would be very subjective. Also the value of each future cash flow would depend on rate of inflation and hence the economic condition of the country where the business resides, which adds another layer of complexity in determining a fair value of the intangible asset. The rate of inflation would also affect the discount rate.

However it is not the only thing that can affect the discount rate; the choices of risk-free interest rate and risk premium would also have great influence. Thus, the final choice of discount rate can have great impact on the valuation.

On the other hand, the length of time for discounting the cash flow should be same as the lifetime of an intangible asset. Therefore the risk of incorrect valuation due to this can be reduced since paragraph 88 in IAS38 provides useful guidance on how to measure the lifetime. Moreover, the further the cashflows from now, the less the discounted present value of it and hence it will have less influence on the value of an intangible asset.

Many of the key decisions above will require a level of judgement to be exercised. Modest differences in opinion/methodology may lead to significant differences in the valuation of intangible assets. Thus, different evaluators may reach different conclusions even when considering the same intangible asset. Therefore it would be important to carry out sensitivity testing on the method used by changing the key parameters such as discount rate and cash flow assumptions used in the calculation. It may also be useful to carry out the calculation of an intangible asset by using two or more different methods to check if the result would vary greatly.

Certainly, in these areas of uncertainty, the use of any relevant professional guidance is vital.

Risk of fluctuation in value of intangible assets due to regular valuation

Some intangible assets may fluctuate significantly in value which requires these intangible assets to have regular valuations. For example, a brand name of a multi-national company such as Apple may increase due to a new innovative product launch. However, it can also reduce due to a bad news, such as a recall of cars sold by General Motors in 2014. In this case, it would be necessary for the company to evaluate the intangible assets in question regularly, for example every quarter or every half year. Otherwise, the shareholders and the bondholders of these companies may not have sufficient information to make the best decision.

Another risk relating to this is that there may be a risk that the value of an intangible asset is over-estimated and hence subsequent write-off may be required. It may occur when the value of an intangible asset decreases due to a change in market conditions, or simply because the previous estimate was too optimistic. It can lead to significant reputational damage and even intervention and fines from accounting regulators.

Key experience and qualifications of existing practitioners

Primarily, the job of doing the valuation of any asset - be it tangible or intangible is of valuation analyst. However, doing the valuation of intangible assets requires special knowledge and skill. Intangible assets may have cross-disciplinary aspects like legal rights, licensing agreements, sublicense agreements, non-disclosure agreements, development rights, commercialisation or exploitation rights, and other contractual obligations. That's why performing the valuation of intangibles demands multi-disciplinary skills like financial, technical and legal expertise. A valuation analyst should possess a level of knowledge of valuation principles and theory as well as a level of skill in the application of such principles that will enable him or her to identify, gather and analyse data, to consider and apply appropriate valuation approaches and methods, and to use professional judgment in developing the estimate of value (whether a single amount or a range).

An analyst has to understand the facts and figures in financial statements including the disclosures in notes. She should have a very good knowledge on the relevant accounting standards like specific IFRSs or GAAPs of the relevant geographical region as the information is presented in the financial statements as per the accounting standards. For example, a good knowledge on IAS 38 (Intangible Assets), IFRS 3 (Business Combinations), IAS 19 (Employee Benefits), IFRS 5 (Non-current Assets Held for Sale and Discontinued Operations), and IAS 12 (Income Taxes), IAS 17 (Leased Assets) will be necessary.

Providing a well-informed valuation by considering these things and other things when necessary will require cross-disciplinary skills like legal, economic and technical matters. A good amount of judgmental skill is also necessary for the valuation of intangibles as judgment has to be applied in many cases like making suitable assumptions of growth rates, discount rate etc.

A very good knowledge on the current valuation approaches - income based approach, asset based approach and market based approach including their advantages and disadvantages and the skill of appropriately applying these approaches are also necessary for the analyst while doing the valuation of intangibles.

The balance of in-house evaluators vs external consultancies

In October 2008, the AASB published a discussion paper, Initial Accounting for Internally Generated Intangible Assets, that put forward the idea of aligning the accounting for internally generated intangible assets with intangible assets acquired in a business combination.³

In February 2011, AASB staff initiated a worldwide online survey for preparers, advisors, auditors and regulators ('preparers'). This was followed in June 2011 with a separate, but similar, survey for users of financial statements. The surveys were structured around the

relevant intangible asset requirements in IFRS 3 - identification, recognition, measurement and disclosure. The preparers' survey closed for comment on 17 June 2011 and the users' survey closed on 15 December 2011.

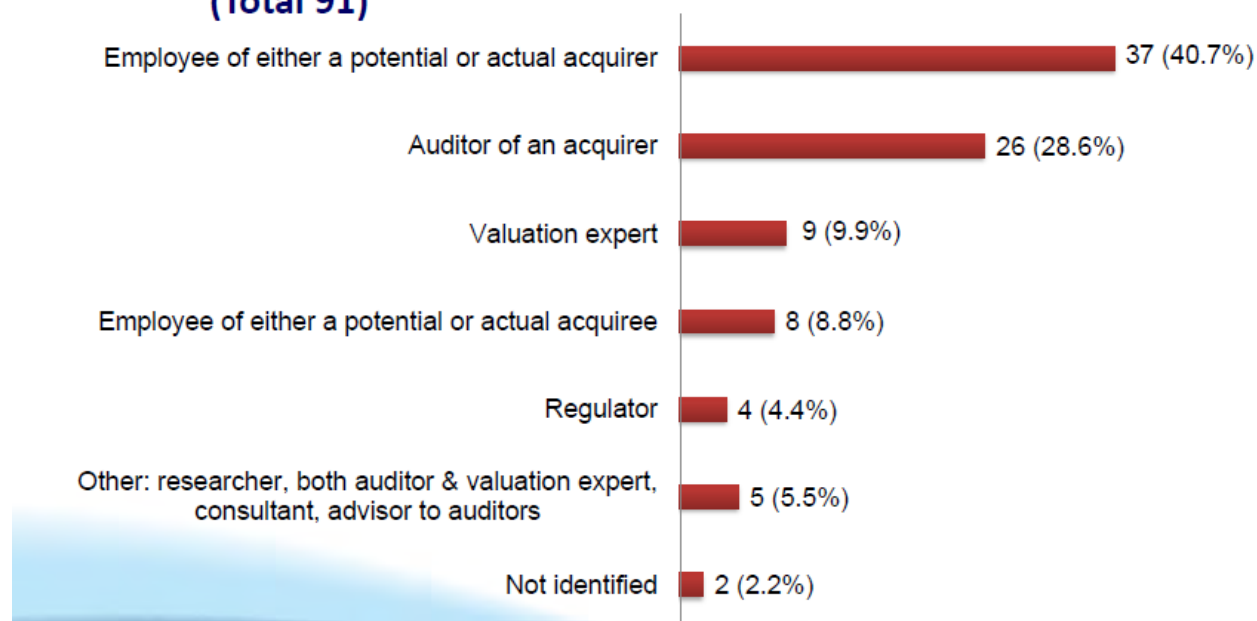
The survey drew responses from 159 respondents of which 128 were considered useable. Of the 128 in total, 104 (91 preparers and 13 users) had experience with the initial accounting for intangible assets acquired in business combinations. The low response rate for what was a relatively widely circulated survey is perhaps an indication of the scarcity of practitioners in the area of intangible assets.

The roles of the 91 preparers with experience were as follows⁴:

- 37 (41%) were employees of either a potential or actual acquirer
- 26 (29%) were auditors of an acquirer
- 9 (10%) were valuation experts
- 8 (9%) were employees of either a potential or actual acquiree
- 4 (4%) were **regulators**
- 5 (5%) were classed as **other** (researcher, both auditor & valuation expert, consultant, advisor to auditors),
- and the remaining 2 (2%) were **not identified**.

From this limited survey it appears that the majority of 'preparers' of accounting for intangible assets are either employees or auditors of an acquirer or a potential acquirer.

Preparers: Respondents' Roles in relation to Business Combinations (Total 91)



Chapter 4: Involvement of the actuarial profession

Positioning of actuaries in the market

Although the advice of an actuary is only required in a fairly limited set of regulations, their skills allow actuaries to be involved in many more areas. Their skills and experience in evaluating uncertain long term cashflows are likely to be useful in some form, on condition that they can make space for themselves in the market.

Survey results

The AFIA Working Party designed and circulated an online survey was circulated to members of the IFoA. The aims of this survey were to understand:

- the level of knowledge that actuaries have regarding AFIA
- the view of actuaries in terms of whether intangible assets should be accounted for in the first place
- whether members feel that they should be involved with AFIA
- whether members would like further guidance regarding AFIA.

The survey results showed that the respondents had a reasonable understanding of the types of intangible asset that make an economic difference for their owners. Most were also aware of the methods available to value them. But the majority of the respondents had a fairly low awareness of actual individuals who perform the valuations and very little awareness of the approach favoured by auditors.

The respondents showed an interest in playing a role in AFIA reporting and offered a broad range of actuarial techniques that could be useful in the calculation of the fair value.

Our conclusion from the results is that actuaries have the interest in getting more involved in AFIA although they acknowledge their lack of experience as a drawback.

The results of the survey are analysed in Appendix A. Appendix B lists all the questions. A copy of the entire survey response is available on request.

Reasons not to use actuaries

One prevailing reason for the lack of involvement of actuaries in the valuation of intangible assets is their historic lack of involvement in the field. It is not unexpected if the users of the services in a particular market consider the available methods and providers to be sufficient. For example:

- There are many accountancy and audit firms with many years of experience valuing them. There may be reluctance to share the underlying expertise.

- Actuaries are perceived as expensive.
- Company CEOs, FDs and Directors are quite happy with low values for these assets, because less goes through the P&L account. Also there is less volatility in value and hence less volatility in the P&L.
- The audit budgets are kept as low as reasonably possible.
- There haven't been (or at least none publicly stated) adverse concerns arising from the existing methods employed (based on discussions with auditors involved in this area).

Actuarial skills, qualifications and experience that could prove useful

In order for an actuarial student to participate in evaluating intangible assets, actuaries need to have basic knowledge about accounting, intangible assets and future cashflows. The actuarial profession provides this in the form of CT1 and CT2. It would also be beneficial to have a basic understanding of world economics and markets which can be found in CT7. However, these requirements can be relaxed if the students are under supervision of a qualified actuary or senior actuarial students when doing the calculations.

Senior actuarial students and qualified actuaries should also possess actuarial skills such as actuarial risk management in order to look at the wider picture in valuing intangible assets. These include the ability to determine the value of intangible assets under appropriate stressed scenarios and the ability to quantify the impacts of certain operational risks.

For actuaries who work in a consulting environment it would be beneficial to have understanding of enterprise risk management when valuing the intangible assets for their clients. This can be obtained through ST9 in the UK or by becoming a CERA with another actuarial society.

The view of the authors is that, in general, actuaries have all the required skills and qualifications to be formally performing the task of valuing intangible assets. The current syllabus under IFoA for the FIA qualification provides all the relevant knowledge for this task.

In terms of practical experience, we believe that actuaries who work in life financial reporting and capital planning would have some advantages over other people due to their exposure to long term cashflow projections and their experience with present values. Actuaries in the pension industry would have the same advantages, in addition to their knowledge in investment markets. General insurance actuaries who work in capital modelling and Solvency II would also be suitable due to their exposure to longer term planning.

In the online survey, 55% of the respondents believed that actuaries currently have the relevant experience and qualifications to play a role in AFIA.

Overall, we believe that actuaries should have all the skills, qualifications and experience to carry out valuation of intangible assets. At the moment, actuaries only need a chance to do so in real life to show that we are capable of doing so. Once we have formally carried out an intangible asset valuation, we will gain the practical experience and hence recognised as a profession who can perform such task.

Additional skills likely to be necessary

One of the challenges of valuing intangible assets would be the lack of credible data in determining the future cashflows directly from the assets or indirectly through the increase in future profits. Past data may be of little relevance as well. Therefore we think that one of the additional skills required would be the ability of utilising a limited volume of credible data to determine the likely future profits. The knowledge of Student's T distribution would be a good starting point, as well as other statistical knowledge about distributions.

There may also be other skills that are necessary. However it would be difficult to find out until one has performed the task. There may be specific skills that are only relevant for valuing intangible assets in one company but not the other. It would be an area that actuaries should review regularly in future so that the profession can be better prepared for valuing intangible assets under a wide range of circumstances.

Does it make economic sense?

As with any economic analysis, actuaries must consider both the cost and benefit of getting involved in any project.

In terms of valuing intangible assets, the economic benefit for a company would be any positive difference between the valuations by actuaries compared with other professions. However, we are not encouraging actuaries to over-estimate the value of any intangible assets as an attempt to get the job. We believe that actuaries may come up with a more accurate valuation because we can take account of data such as future economic conditions that other professions may overlook. The benefit for an actuarial consultant would be the fees that the consultant can receive from this task. However, due to our inexperience in this area, actuaries may need to charge less than other professionals in order to take on this job, at least initially. This may change in future once we are formally recognised as being competent in valuing intangible assets.

The cost for an actuary of getting involved in AFIA would be the actual cost of performing the task, such as gathering all the data and performing the calculations, plus the opportunity cost of not being able to carry out other tasks that can have more economic sense. For an insurance company or other companies, the cost would be the additional charge to employ a number of actuaries to perform the task instead of accountants. In addition, there may be a cost for an insurance company to deploy actuarial resources to do the AFIA instead of other tasks such as financial reporting or business planning. It will be the responsibility of the management to decide if it makes any economic sense for actuaries to get involved in valuing intangible assets.

Overall, we believe that it makes economic sense for actuaries to get involved. Companies can be assured that the valuation of intangible assets is done by a profession who is comfortable with future cashflows and uncertainty. Also, it will be beneficial to the whole profession as we get into this area and expand our influence on the financial market. Moreover, the IFoA should always encourage actuaries to work on a wide range of areas.

However, as every task is unique, it would be down to individual actuary to decide if they want to take on the AFIA.

Appendix A: Analysis of survey responses

The views of actuaries on AFIA and the potential for actuaries to get involved

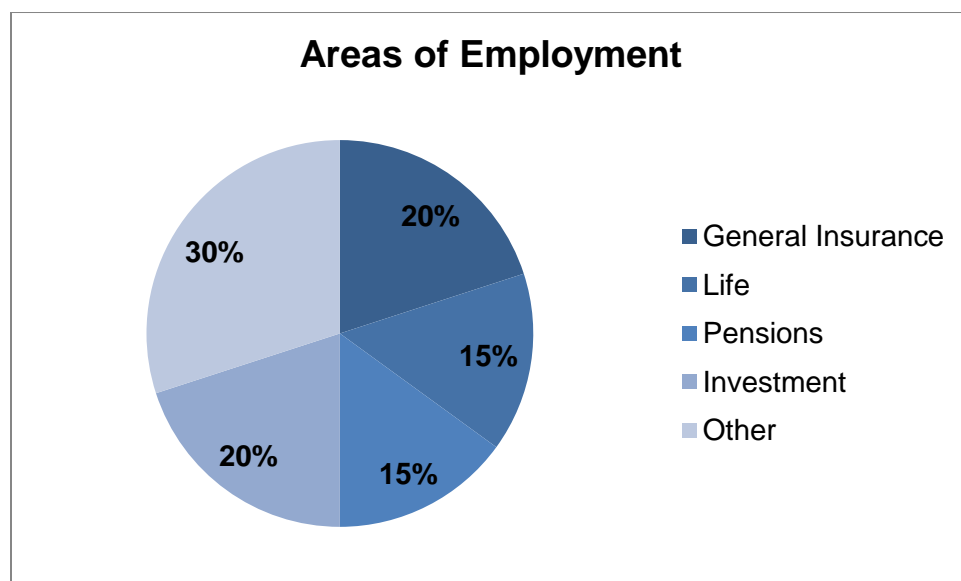
A survey was circulated around members of the IFoA. The aims of this survey were to understand:

- the level of knowledge that actuaries have regarding AFIA
- the view of actuaries in terms of whether intangible assets should be accounted for in the first place
- whether members feel that they should be involved with AFIA
- whether members would like further guidance regarding AFIA.

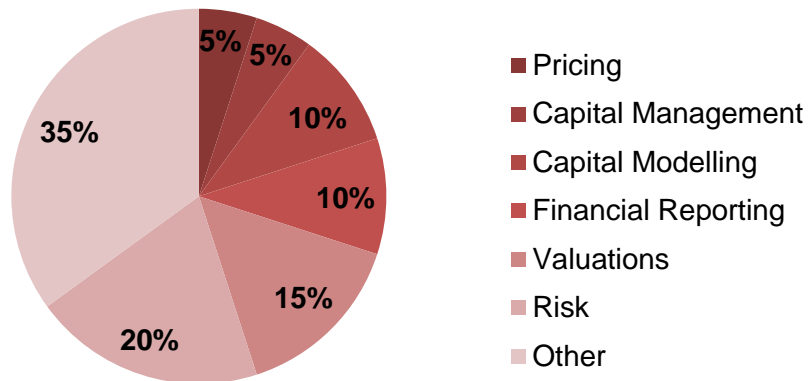
Please see Appendix B for a copy of the survey and the questions that were asked. In this section, the responses are considered.

Background Questions:

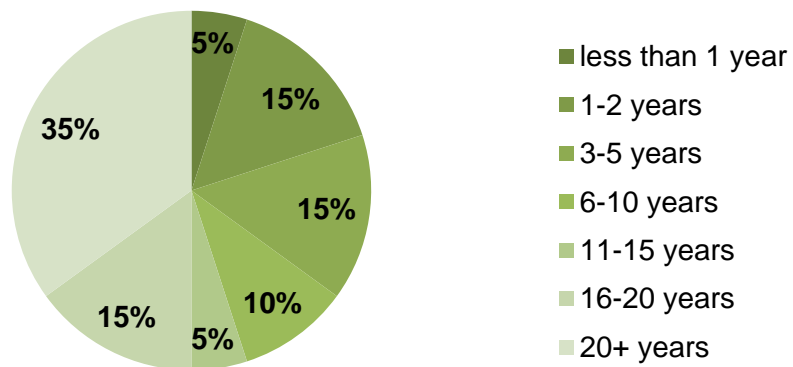
The survey had 20 responses from members of the IFoA. This section shows the varying background of the actuarial members who took part in the survey. This has been included to display the range of backgrounds, which hopefully removes a reasonable level of bias from results.

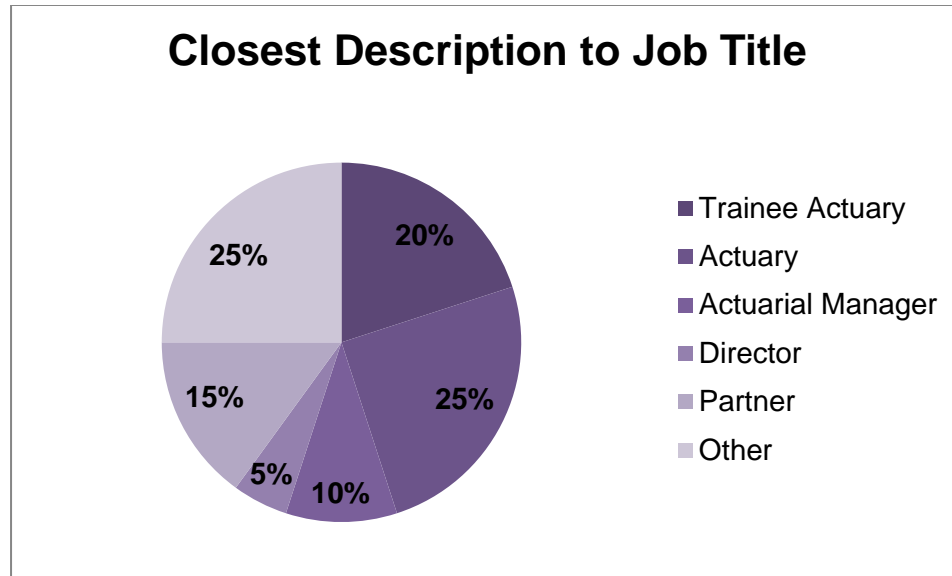


Breakdown of Actuarial roles held by those who took part in the survey



Length of involvement with the Actuarial profession





Current Involvement:

The next section of the survey included questions to ascertain the level of current involvement with AFIA from members of the IFoA. There were questions also to ascertain the level of understanding/appreciation for intangible assets.

The first question was:

In your opinion, what are the main intangible assets of a company?

A wide range of intangible assets were listed in response to this question. These included reputation/branding, client contracts/relationships, technical know-how (including proprietary software), network of contacts, databases, patents/copyrights, goodwill, human resource and intellectual property.

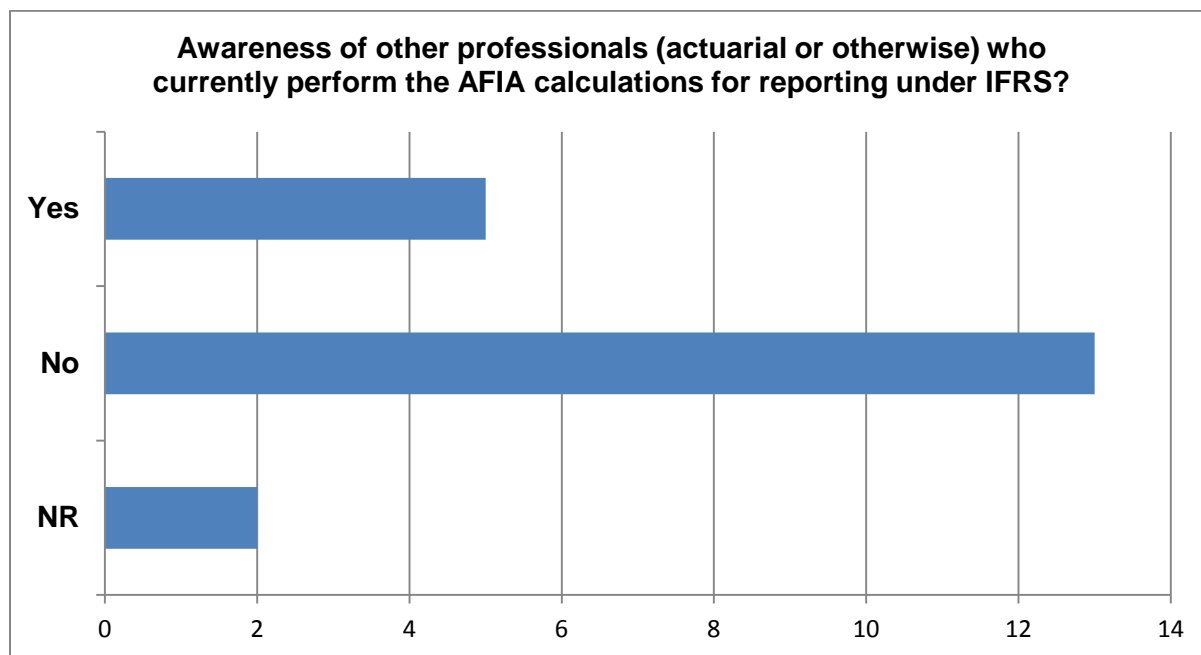
Those who took part in the survey listed brand names, patents/franchises/copyrights, and relationships/networks as the intangible assets that present the greatest value to their companies. In addition, those who were surveyed generally acknowledged that intangible assets may have an impact on the future revenue stream of a company and thus should be accounted for.

It was interesting to see that although the majority of those who took the survey did not actually work within AFIA, many were aware of various methods that can be used. This is because methods like DCF are already heavily used within the actuarial environment.

The Income approach (discounted cash flow valuation method) and the market approach (comparable transactions) were the two selections that were believed to be the two current methods of AFIA that are the most effective at providing a true and fair view of a company's financial position.

The next question asked:

Are you aware of professionals, actuaries or others, in your firm or elsewhere, who currently performs the AFIA calculations for reporting under IFRS?



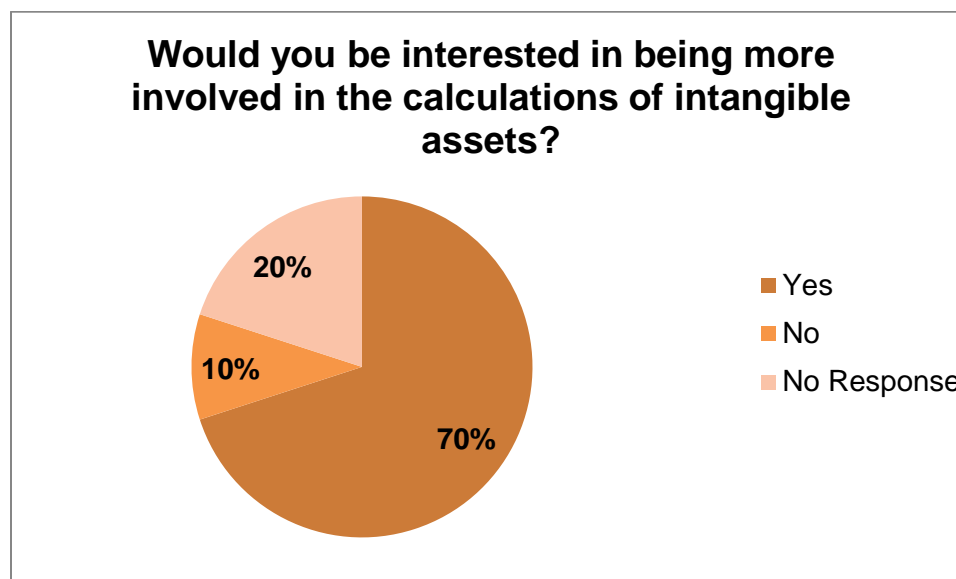
It was interesting to see that a sizeable proportion of the responses were 'No'. This limited involvement of these members within AFIA was further seen when reviewing answers to the question:

'To what extent are you familiar with the approach taken by auditors in assessing whether the method of accounting for intangible assets gives a true and fair view of the company's worth?'

The majority of those surveyed commented that they were unfamiliar with the approaches taken by auditors. However, as can be seen in later discussion, these members still felt that actuaries can play a role within AFIA.

There were also a few interesting suggestions regarding potential ways of improving the current approaches used within AFIA. These included Solvency II modelling techniques and the use of multiple decrement tables to help determine amortisation rates for acquired customer relationship.

Future engagement of actuaries in Accounting for Intangible Assets:



A key question that the working party asked was whether the members of the actuarial profession were interested in being more involved in the calculations of intangible assets. 70% of those surveyed replied that they would be interested in being more involved with the calculations of intangible assets.

Another question asked was:

Do you think that actuarial techniques can add value to AFIA and why?

75% of those who took the survey answered this question. 94% of those who responded replied with a 'Yes'. There was a range of reasons given to support reasons why actuarial techniques can add value to AFIA. It was generally argued that actuaries have the required skill set that enables them to make a contribution to AFIA.

In particular, a common theme was to highlight how actuaries are already competent in working with areas of uncertainty. Another area of actuarial expertise that was discussed is pricing techniques, which could allow actuaries to make valuable contributions to AFIA. Actuaries also have competency in projecting future cash flows and allowing for other modelling considerations, such as assumptions, stress/scenario testing and determining a distribution of outcomes. These were all perceived to be important areas of expertise that could potentially allow actuaries to play a valuable role within AFIA.

In another question, it was considered whether there are methods used in projecting uncertainty under Solvency II that could be usefully employed in projecting the uncertainty of different intangible assets (such as brand names). There were interesting responses which

argues that the models that the industry is currently developing to address Solvency II are tackling similar challenges required to value intangible assets.

The use of stress testing in the Standard Formula context were also mentioned as an application that could be used to help measure how valuations of intangible assets could vary in a range of situations.

A similar method to the way that operational risk is usually quantified was mentioned a couple of times as a possible method that could be used when valuing intangible assets. It was suggested the potential use of frequency/severity distributions should at least be investigated.

These responses were developed further when those surveyed were asked to consider whether actuaries currently have the skill set required in order to enable them to play a role in AFIA. A common theme in the 'Yes' responses was that actuaries may have the expertise to play a role but maybe not the experience. It was suggested that actuaries may need more practical and relevant experience in order for actuaries to be in a position where they can add value to AFIA (for example, industry knowledge is a key requirement when valuing intangible assets).

Questions were also asked that were concerned with understanding the current level of AFIA resources/support available to actuaries. Of those who took part in the survey and are involved with AFIA, IFRS guidance and the 'actuarial team' were the only items listed as resources currently available as support.

The last question of the survey was:

Would it be beneficial for the Financial Reporting Council or the IFoA to issue regulations/guidance to help actuaries to carry out the AFIA calculations? Is there any other type of guidance/support that would you like to have available?

75% of those who were surveyed answered this question. It was all generally thought that the introduction of potential regulation/guidance could be useful however responses did mention the limitations of regulations.

It was appreciated that the involvement of actuaries within the AFIA environment is still quite small. Responses emphasised the limitations of regulations and suggested IFoA guidance to perhaps be of greater use.

One member stated that it would be more useful to start the debate (of whether actuaries should be involved with AFIA) rather than introducing regulation, which could be considered at a later stage. There was a trend in the suggestions that the current limited involvement of actuaries within AFIA meant that the time now was for a discussion but perhaps not regulation. It was considered that regulation may inhibit progress, innovation and involvement.

Summary/Conclusion of findings:

The main conclusions drawn from the survey are:

- Actuaries may be able (and want) to play a valuable role within AFIA, but may lack the experience to do so.
- Guidance would be welcomed but there may be a need to first start further discussions regarding the role that actuaries can play within AFIA.

70% of those surveyed replied that they would be interested in being more involved with the calculations of intangible assets. If nothing more, this response prompts at least the need for further discussion of a potential actuarial involvement within the context of AFIA. It was generally regarded, amongst those surveyed, that actuarial techniques can add value to AFIA. Also, familiarity of actuaries with techniques such as DCF may mean that, although actuaries may not have the experience of working within AFIA, perhaps the expertise required has already been attained.

Appendix B: Survey questionnaire

Accounting For Intangible Assets (AFIA)

Working Party Survey



Institute
and Faculty
of Actuaries

Background Questions

Name (optional):

Contact number/ email address (optional):

Which area do you work in?

☐ General Insurance

☐ Life

☐ Pensions

☐ Investments

☐ Other:

Which area do you primarily work in?

☐ Pricing

☐ Reserving

☐ Capital Management

☐ Capital Modelling

☐ Financial Reporting

☐ Valuations

☐ Risk

☐ Other:

How long have you been working in the actuarial profession?

- ☐ less than 1 year
- ☐ 1-2 years
- ☐ 3-5 years
- ☐ 6-10 years
- ☐ 11-15 years
- ☐ 16-20 years
- ☐ 20+ years

Which is the closest description to your job title?

- ☐ Trainee Actuary
- ☐ Actuary
- ☐ Actuarial Manager
- ☐ Senior Manager
- ☐ Head of Department
- ☐ Chief Actuary
- ☐ CRO
- ☐ COO
- ☐ Director
- ☐ Partner
- ☐ Managing Director
- ☐ CEO
- ☐ Other:

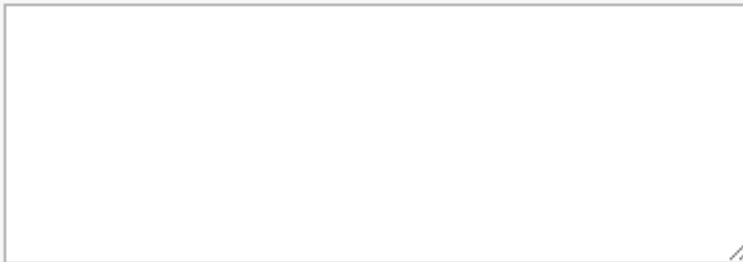
Current Involvement

In your opinion, what are the main intangible assets of a company?

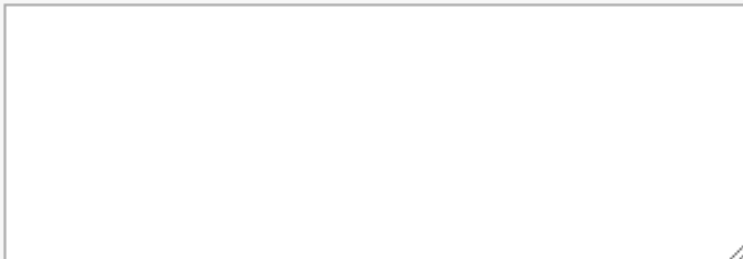
A large, empty rectangular text box with a thin black border and a small double-slash icon in the bottom right corner, intended for the user to write their answer.

Are you familiar with the intangible assets that present the greatest value to their companies? Can you list what is, in your view, the top three intangible assets by value, for companies worldwide, and in the UK?

Examples include: brand names, copyrights, patents, trademarks, licences, franchises, customer lists, customer relationships, publishing rights, information databases. For a more comprehensive list, see here: <http://www.ipo.gov.uk/ian/ian-assets/ian-assets-examples.htm>

A large, empty rectangular text box with a thin black border and a small double-slash icon in the bottom right corner, intended for the user to write their answer.

Do you feel that investors should take the value of intangible assets into account when determining the price they are willing to pay for a company's shares? Please explain your answer.

A large, empty rectangular text box with a thin black border and a small double-slash icon in the bottom right corner, intended for the user to write their answer.

Are there any kinds of intangible assets for which your answer to the above question would be different? Please explain your answer.

Are you familiar with the different methods of Accounting for Intangible Assets (AFIA) such as the discounted cashflow method? If so, please elaborate.

In your view which, if any, of the current methods of AFIA are the most effective at providing a true and fair view of a company's financial position?

- ☐ Income approach (discounted cashflow valuation method)
- ☐ Market approach (comparable transactions)
- ☐ Cost approach (creation and recreation costs)
- ☐ None
- ☐ Other:

Are there methods used in projecting uncertainty under Solvency II that could be usefully employed in projecting the uncertainty of different intangible assets (such as brand names)? Please explain your answer.

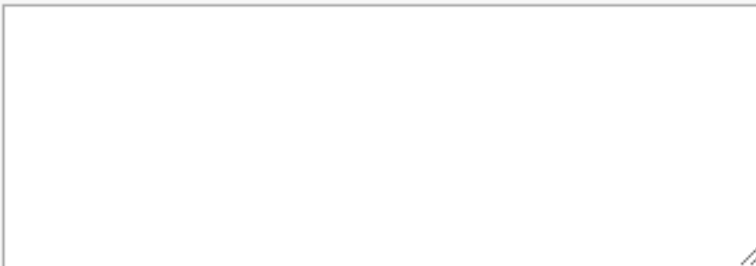
Under IFRS an intangible asset can only be recognised as part of a business combination. Until such time the asset, if there is one, needs to be expensed as a cost through the profit & loss statement. Do you approve of this approach? If not, what would you prefer and why?




Are you aware of professionals, actuaries or others, in their your firm or elsewhere, who currently perform the AFIA calculations for reporting under IFRS?

- ☐ Yes
☐ No

Can you think of ways to improve their approach?



To what extent are you familiar with the approach taken by auditors in assessing whether the method of accounting for intangible assets gives a true and fair view of the company's worth?



Future engagement of actuaries in Accounting for Intangible Assets

Would you, as a member of the actuarial profession, be interested in being more involved in the calculations of intangible assets?

- ☐ Yes
☐ No

Do you think that actuarial techniques can add value to AFIA and why?

In your view, do actuaries currently have the relevant experience/qualifications to play a role in AFIA?

If you are involved with AFIA, what resources are currently available as support?

Would it be beneficial for the Financial Reporting Council or The IFoA to issue regulations/guidance to help actuaries to carry out the AFIA calculations? Is there any other type of guidance/support that would you like to have available?



Are you happy to be contacted by the AFIA Working Party to discuss your responses?

- ☐ Yes
- ☐ No

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