

Intangibles research project – survey and quantitative report update

Executive Summary

Project Type	Research Project			
Project Scope	Significant			
Purpose of the paper				
	to the Board on progress on the research work related to y of users and the quantitative analysis.			
Summary of the Issue				
outlines some initial analysis a The primary data gathering pha initial analysis undertaken. App	luding 13 partial responses) to the survey. Appendix A nd highlights are presented in this paper. ase of the quantitative report has been completed, and bendix B of this paper provides an overview of the ne preliminary findings from the research.			
Decisions for the Board				
1. Does the Board have ar analysis included in Ap	ny comments on the responses or preliminary survey pendix A?			
2. Does the Board have an quantitative report?	ny comments on the current structure proposed for the			
3. Does the Board have an analysis in Appendix B?	y comments on the preliminary quantitative report			
Recommendation				
N/A				
Appendices				
Appendix A Preliminary Analy	vsis of Survey Responses			
Appendix B Preliminary Analy	vsis of Quantitative Data			



Background

- 1. During 2022, the UKEB decided to undertake a multi-output, proactive research project that would contribute to the international debate on intangible items. The research will focus on how the accounting for, and reporting of, intangible items could be improved to provide investors with more useful general purpose financial statements to help them make better informed decisions.
- 2. The initial phase of the research is focused on understanding stakeholders' views (particularly investors) of the accounting for, as well as the current state of the reporting of, intangibles in the UK. This involves three reports:
 - a) A qualitative report focused on stakeholder views about the accounting for intangible assets, supported by economic analysis and a review of key literature. This report was published in March 2023.
 - b) A quantitative report examining the prevalence and economic relevance of intangible items for UK reporters, including an analysis of current practices among UK listed companies using IFRS Accounting Standards. This report is currently being drafted and some preliminary findings are included at Appendix B of this paper.
 - c) An investor focussed report based on outreach with users (largely a survey, though other outreach through interviews and roundtables could be performed). This report is currently being drafted and some preliminary findings are included at Appendix A of this paper.
- 3. The UKEB's qualitative report on intangibles, published in March 2023, discusses the importance of intangibles from an economic perspective and sets out stakeholders' views on possible improvements to the accounting for intangibles.
- 4. Investors are a key stakeholder group and primary users of financial statement information. Investors interviewed for the qualitative research primarily commented on disclosure in the notes to the financial statements, wanting to better understand companies' investment in intangibles and their performance. Investors appear not to put significant weight on the recognition of intangibles on the balance sheet, not convinced that it will produce reliable information. Instead, they showed a preference for detailed disclosures of expenditure on such items to allow them to make their own assessment of the potential value creation.
- 5. The user survey provides an opportunity to explore further the views of their stakeholders.
- 6. By contrast, the quantitative report provides an opportunity to examine the actual prevalence, nature and potential impact of intangible assets recognised by UK companies.



Survey research update

7. The survey closed on 22 October 2023. Below is an overview of the responses received. Appendix A provides some preliminary analysis of the responses. It is important to note that is a work in progress, further analysis is currently underway.

Overview of responses

8. The Secretariat received a total of 45 responses (including 13 partial responses) from users of IFRS financial statements in both UK-based and international institutions. In addition, responses were received from experts in financial statement analysis including academics, appraisers and audit advisories. The demographic details are shown below:

Chart 1: Respondents' titles

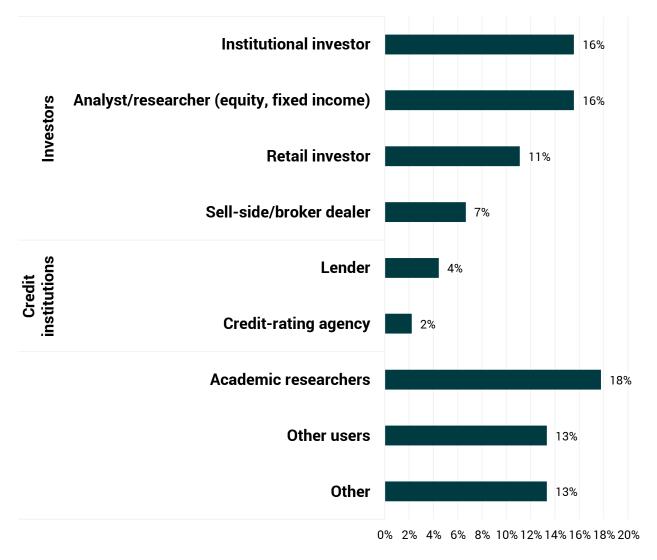




Chart 2: Respondents' years of experience using IFRS financial statements

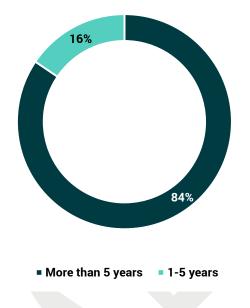
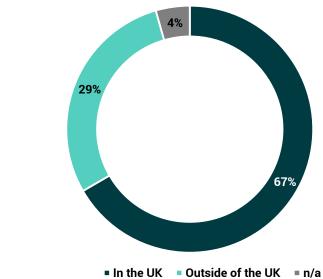


Chart 3: Location of respondents' organisations





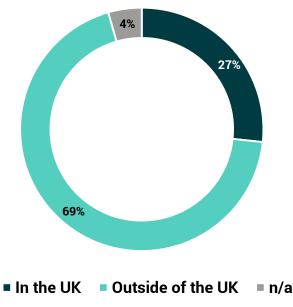
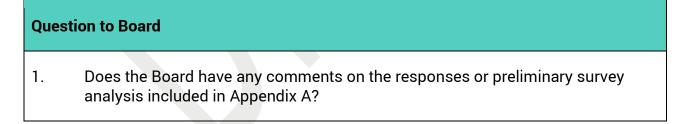


Chart 4: Location of the companies respondents' invest in / lend to / analyse

Preliminary Analysis

- 9. The Secretariat believe the number of responses received is sufficient to provide a reliable and insightful assessment of users' views on intangibles. The 13 partial respondents to the survey answered questions about the current accounting for intangible items but did not respond to questions on proposed solutions. These responses are still, however, considered usable for analysis as they covered at least the first half of the questionnaire.
- 10. Appendix A provides the Board with some preliminary highlights from the survey. The analysis is subject to further development/refinement.



Quantitative Research Report

11. The quantitative report draws on the qualitative report findings about the relation between intangible items and economic outcomes and on concerns identified by stakeholders with IAS 38 *Intangible Assets* to further analyse the accounting and financial reporting for intangibles in the UK. In particular, this report aims to:



- a) Provide further and more granular evidence on the prevalence of intangibles assets reported by UK listed companies applying IFRS;
- b) Examine whether the main concerns identified by stakeholders in the qualitative report are consistent with what is observed in or inferred from quantitative data; and
- c) Further test the finding that intangible assets are positively correlated with companies' performance by conducting analyses on UK data.
- 12. To provide this evidence, the report draws on a "three-tiered" analysis:
 - a) Broad analysis of the financial data for all UK listed companies, using data obtained from the Reuters data base.
 - b) Detailed analysis of a sample of UK companies' financial statements, including qualitative disclosures in the notes.
 - c) Case studies for a limited number of industries/companies based on the actual or expected prevalence of intangibles, or other relevant factors (such as the prevalence of M&As).
- 13. The analyses aim to achieve several objectives:
- 14. First, to provide more complete and granular evidence on the prevalence of intangibles in the UK with respect to the one contained in research reports already published by the UKEB on the topic. The report will investigate industry, size and index constituency differences in greater detail, with the purpose of providing a comprehensive picture of the prevalence of intangibles among UK listed companies.
- 15. Second, to test the existence of two of the concerns identified by stakeholders in the Qualitative Report by providing some empirical evidence. Namely:
 - a) in the qualitative report, stakeholders of all types noted that IAS 38 leads to inconsistent accounting between companies that grow by acquisition and companies that grow organically. This section provides some evidence to further investigate this concern by analysing the trends in mergers and acquisitions (M&A) activity in the UK as well as the correlation between M&As and the growth of recognised intangible assets;
 - b) stakeholders also noted that because of the high threshold for recognition that IAS 38 sets, many potential intangible assets are currently unrecognised in the financial statements. This section will aim to provide estimates of assets currently unrecognised on balance sheets using a variety of techniques.



- 16. Finally, to provide evidence on whether intangibles are positively correlated with companies' performance, using a variety of techniques (graphical evidence, correlation, regression analysis). This analysis stems from the economic literature review of the Qualitative Report and aims to fill a gap in the UK evidence-base, as relatively few studies, and no recent ones, focus on this topic for UK companies.
- 17. The report contributes to the evidence base that will be used by the UKEB as it engages with a future IASB project on Intangibles.
- 18. The report also contributes to the wider debate on intangibles. It provides an opportunity to discuss the findings with stakeholder in both the UK and internationally.

Structure

- 19. The report is expected to have the following structure:
 - a) Executive summary
 - b) Terminology
 - c) Background
 - i. Intangibles under IFRS Accounting Standards
 - ii. The IASB Third Agenda Consultation
 - d) UKEB Research Outputs
 - i. Qualitative Report
 - ii. Survey
 - iii. Quantitative Report
 - e) Literature review
 - f) Data and methodology
 - g) Descriptive analysis of intangibles
 - i. Population Analysis
 - ii. Sample Analysis
 - iii. Textual Analysis of Disclosures
 - h) Intangibles and M&A
 - i) Intangibles and economic returns



- j) Conclusion and Next Steps
- k) Appendices
 - i. Glossary of Terms
 - ii. Recorded Intangibles
 - iii. Mergers and Acquisitions Analysed
 - iv. Reference List
- 20. Appendix B summarises preliminary findings for section g)-i) of the report.

Data and Methodology

- 21. This paper combines two investigation methods. For each of the topics considered, the following analyses were conducted:
 - a) An **analysis of quantitative financial information**, from financial statements and other sources, conducted on the population of listed companies applying IFRS Accounting Standards. Data for this analysis was collected from Reuters-Eikon;
 - b) A granular **analysis of financial statement** information, conducted on a sample of 50 companies listed in the UK. Data for this analysis was hand-collected.
- 22. The purpose of combining these two research methods is to cross-validate and enhance the results of the quantitative analyses with evidence that data aggregators such as Reuters-Eikon typically do not provide because they are located in the notes to the financial statements or in the first half of the annual report.
- 23. Examples of data extracted manually from the sample include a breakdown of the type and value of specific intangible items, information on the amortisation and impairment of intangibles assets, qualitative disclosures around business combinations, and the strategic value of intangibles as evidenced from the management commentary.

Population Data

24. Quantitative analyses focus on all companies listed on the London Stock Exchange (LSE), including companies listed on the Alternative Investment Market (AIM), which apply IFRS Accounting Standards. All entities that are purely investment vehicles (e.g., all listed funds and trusts) are excluded from the count. The analyses in the report use annual data from each financial year-end in the period from 2011-2021.



25. As of 2021 year-end, the population analysed was comprised 1,120 companies, 751 of which were listed on AIM. The total assets of all companies analysed were £12 trillion, total revenue was £17.94 trillion and the total market capitalization was £2.7 trillion.¹

Sample data

26. Analyses of financial statements are conducted on a randomly drawn sample of 50 companies listed on the main market. For consistency with the quantitative analyses, all entities that are purely investment vehicles (e.g., all listed funds and trusts) were excluded from the sample. The sample amounted to 12% of the population of listed entities applying IFRS.

Industry	Sample	Population
Basic Materials	7 (14%)	24 (6%)
Consumer Discretionary	9 (18%)	90 (22%)
Consumer Staples	3 (6%)	25 (6%)
Energy	4 (8%)	13 (3%)
Financials	9 (18%)	66 (16%)
Health Care	3 (6%)	13 (3%)
Industrials	7 (14%)	88 (22%)
Real Estate	4 (8%)	52 (13%)
Technology	2 (4%)	20 (5%)
Telecommunications	0 (0%)	7 (2%)
Utilities	2 (4%)	10 (2%)

- 27. It is anticipated that the analysis will also be extended to a sample of AIM companies.
- 28. Note that some data reported is preliminary and may change as the analyses continue to be refined.

Reuters Eikon data was cross-validated using World Federation of Exchanges data, available at: <u>https://www.world-exchanges.org/our-work/statistics</u>



Questions to Board

- 2. Does the Board have any comments on the current structure proposed for the quantitative report?
- 3. Does the Board have any comments on the preliminary quantitative report analysis in Appendix B?

Next steps

29. The Secretariat are developing both the survey and quantitative report and anticipate presenting final versions towards the end of Q1 2024.

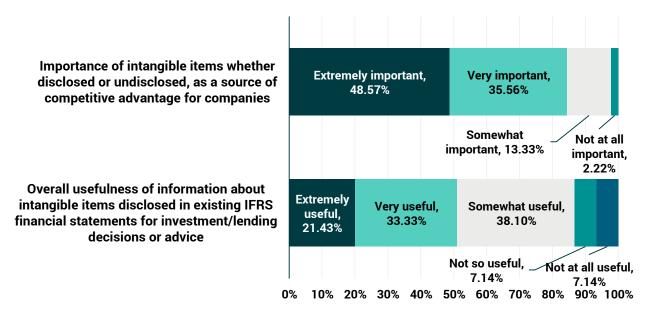


Appendix A: Preliminary Analysis of Survey Responses

Intangibles are considered economically important to companies though the information provided in financial statements could be improved.

- A1. Users of financial statements acknowledge the economic relevance of intangibles to companies, regardless of their presence on the balance sheet. However, they don't find that the information disclosed in financial statements, prepared using existing IFRS accounting standards, to be as useful.
- A2. When asked whether intangible items, disclosed or undisclosed, are an important source of competitive advantage, 84.13% of respondents (38 individual responses) suggested that they are either very or extremely important. Only one respondent indicated that they are not important. (See chart 5).

Chart 5: Economic importance of intangibles and the overall usefulness of information in financial statements prepared under existing IFRS accounting standards



A3. While an overwhelming majority of users noted that intangible items are an important source of competitive advantage, a lower proportion of respondents found the information currently presented in the financial statements under IFRS Accounting Standards to be useful for investment and lending decisions. When



asked about the overall usefulness of information disclosed pertaining to intangible items for investment or lending decisions, 54.76% of respondents (23 individual responses) suggested that it is either very or extremely useful. 38.10% of respondents (16 individual responses) suggested that it is only somewhat useful, while 14.28% of respondents (6 individual responses) suggested it is either not so useful or not at all useful. (See chart 5)

Of all requirements, disclosures are considered the most useful information.

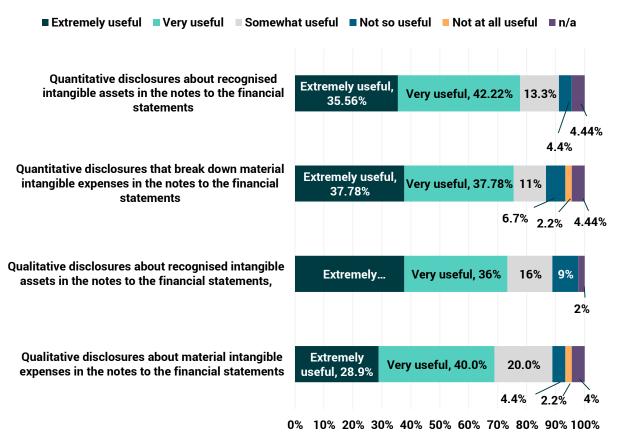
- A4. Users were asked about the usefulness of current accounting requirements for intangibles.
 - a) When asked whether they find **recognition of internally generated development or software** useful, 68.2% of the respondents found this to be useful or extremely useful, 18.2% found this requirement somewhat useful, and 13.6% found this to be not so useful or not at all useful.
 - b) When asked whether they find **expensing all other internally generated intangibles** useful, 51.2% of the respondents found this to be useful or extremely useful, 20.9% found this requirement somewhat useful, and 27.9% found this to be not so useful or not at all useful.
 - c) When asked whether they find **recognising goodwill** useful, 59.5% of the respondents found this to be useful or extremely useful, 11.9% found this requirement somewhat useful, and 28.6% found this to be not so useful or not at all useful.
 - d) When asked what the usefulness of quantitative disclosures about recognised intangible assets such as amortisation periods and useful lives was for investing and lending decisions, 77.78% of respondents (35 individual responses) suggested that they are either very useful or extremely useful. Only 2 respondents suggested that they are not so useful. (See chart 6)
 - e) Users were asked about the usefulness of quantitative disclosures related to material intangible expenses. 75.6% of respondents (34 individual responses) suggested that these disclosures were either very or extremely useful. While only 8.88% of respondents (4 individual responses) suggested that these disclosures were either not so useful or not at all useful. (See chart 6)
 - f) Users were also asked how useful qualitative disclosures such as descriptions of recognised intangible assets as well as intangible expenses were for investing and lending decisions. The majority of users suggested qualitative disclosures to be useful for their decision-making processes. With 73% of respondents (33 individual responses) suggesting they are either very or extremely useful, while only 9% of respondents



suggested they are not so useful. No respondents suggested these disclosures are not at all useful. (See chart 6)

g) With reference to usefulness of qualitative disclosures about material expenses related to intangible items, 68.9% of respondents suggested they are either very or extremely useful. Only 6.7% of respondents (3 individual responses) suggested these disclosures are with not so useful or not at all useful. (See chart 6)

Chart 6: Usefulness of disclosures





Users prefer companies to expense costs incurred on internally generated intangible items and to recognise assets for intangible items that are purchased¹

- A5. Users prefer companies to expense spending on most internally generated intangible items, while there is a preference to recognise assets for acquired intangible items on the balance sheet [of an acquiring company]. This is consistent with existing IFRS accounting standards, specifically IAS 38 *Intangible Assets* and IFRS 3 *Business Combinations*.
- A6. Users were asked what the most useful treatment is for a variety of intangible items and were presented with the following options(See Chart 7):
 - a) expense through profit & loss,
 - b) expense through profit & loss as a stand-alone item,
 - c) recognise an asset or
 - d) have stand-alone disclosures in the notes to financial statements.

¹ This analysis has extracted all affirmative responses from the data. In the final report more granular analysis will be conducted which may yield different results.



Chart 7: Prefered treatment for different types of intangible items

- Expensed through profit and loss (aggregated with other costs)
- Expensed through profit and loss (stand-alone item)
- Capitalised on the balance sheet
- Disclosed as stand-alone item in the notes to the financial statements
- Don't know/Not sure

Primary (blue sky) research	36%		39%	14%	8%
Applied research	17%	37%	17%	17%	11%
Product development	6% 28%	3	89%	25%	<mark>3%</mark>
Advertising	31%	4	0%	<mark>6%</mark> 209	<mark>% 3%</mark>
Purchase of brands/trademarks	14%	54%		27%	<mark>3%</mark>
Purchase of software	16%	54%)	22%	<mark>5%</mark>
Software development	11% 11%	53	%	19%	6%
Purchase of customer lists	22% 8	3% 38	%	30%	<mark>3%</mark>
Public relations	42%	%	33%	12%	12%
Purchase of intellectual property for use	8%	53%		33%	<mark>3</mark> %
Purchase of intellectual property as investment	7%	56%		33%	5%
Purchase of cryptoassets for use by a trader/dealer	13% 8%	32%	32	% 1	6%
Purchase of cryptoassets for investment/speculation	11%	35%	35%	5 1	6%
Employees' training	49	9%	17%	20%	11%
Purchase emission certificates for investment/speculation	13% 10%	35%	3	0%	13%
Purchase emission certificates to offset future emissions	10%5%	38%	35	5%	13%
Purchase emission certificates for trading intermediation	14% 8%	38%		30%	11%
Purchase data to enhance value creation	21%	21%	24%	21%	13%
Collect and generate data to enhance value creation	34%	19%	19%	16%	13%
C	1%	50)%		100%



A cost-based measurement basis is preferred for many intangible items.

- A7. Intangible items often present difficulties with respect to their measurement. We gauged which measurement model users considered most useful by presenting them with a hypothetical scenario under which various intangible items were recognised as assets on the balance sheet.
- A8. Under this hypothetical scenario, users were asked to select the measurement model which would result in the most useful information for each intangible item.
- A9. The following measurement models were presented:
 - a) Cost and amortisation with impairment (similar to plant and equipment measured at cost)
 - b) Revaluation through OCI (similar to plant and equipment measured at fair value)
 - c) Cost and impairment only (similar to goodwill)
 - d) Fair value through profit and loss (similar to many financial instruments)
- A10. Broadly speaking, users suggested that cost-based models would provide the most useful information for most intangible items, while fair-value through profit and loss was mainly suggested for crypto assets and emissions certificates. See Chart 8.²

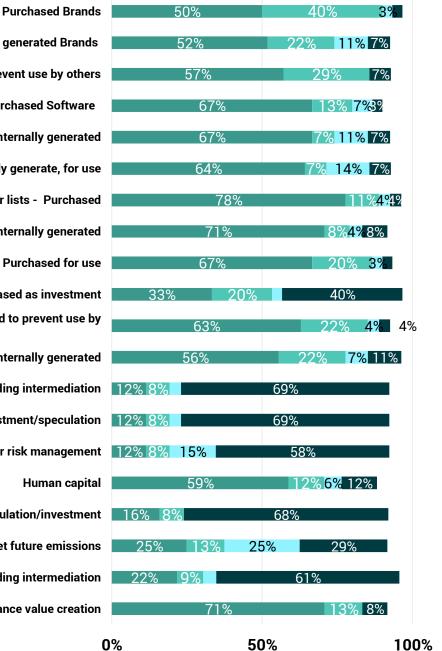
² Only responses which selected one of the options as an answer are presented. "N/A" Responses are excluded for easier legibility of the chart but will be included in the analysis presented in the final report.



Chart 8: Most useful measurement models for intangible items

- Cost and amortisation with impairment
- Revaluation through OCI

- Cost and impairment only
- Fair value through profit and loss



Internally generated Brands Brands - Purchased to prevent use by others **Purchased Software** Software - Internally generated Software - Internally generate, for use **Customer lists - Purchased Customer lists - Internally generated** Intellectual property - Purchased for use Intellectual property - Purchased as investment Intellectual property - Purchased to prevent use by others Intellectual property - Internally generated Cryptoassets held for trading intermediation 12% 8% Cryptoassets held for investment/speculation 12% 8% Cryptoassets - Held For risk management 12% 8% Human capital Emission certificates held for speculation/investment Emission certificates held to offset future emissions Emission certificates held for trading intermediation

Databases used to enhance value creation



Appendix B: Accounting for Intangibles: An analysis of data and financial statements of UK listed companies

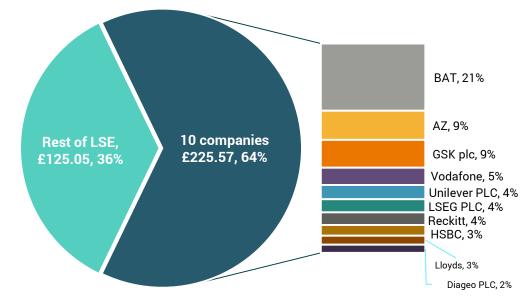
Descriptive Analysis

B1. In this section we provide an analysis of intangibles in the financial statements of UK listed entities.

Population Data

- B2. The report examines the prevalence of intangible assets in the UK, taking into account a range of characteristics of companies, including their size and industry
- B3. We note that intangible assets are very concentrated, with the largest share of intangible assets held by a handful of companies. As of 2021, 10 companies accounted for nearly 64% of the intangible assets recognised by LSE listed companies (See chart 4, Source: Reuters-Eikon).

Chart 4: Concentration of net intangible assets across London Stock Exchange 2021FY \pounds Billon





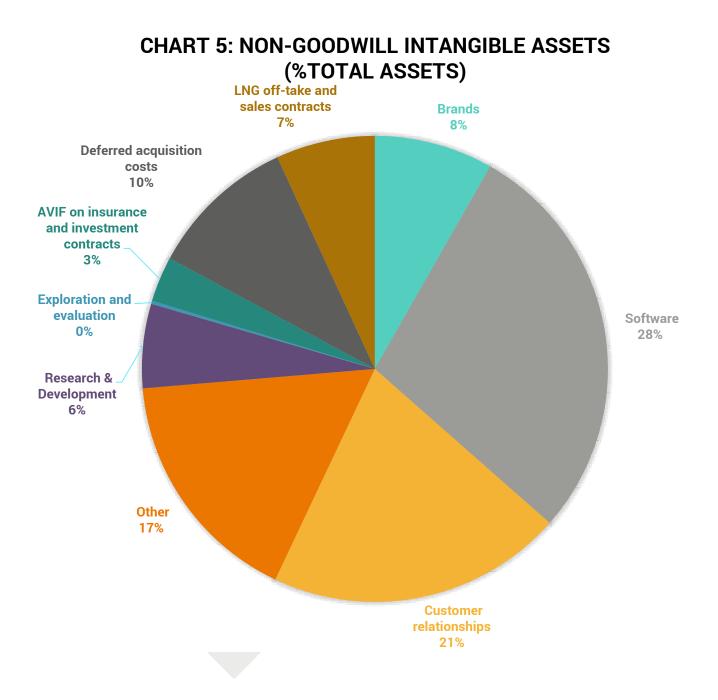
- B4. UKEB calculations based on data reported by the AASB (2023) and Reuters-Eikon confirm that a similar concentration (though not so dramatic) can be found among companies listed on the Australian Stock Exchange (ASX), with the 20 largest companies accounting for 64% of intangible assets recognised in the market.
- B5. Consumer staples, health care and financial services industries accounted for the highest value of intangible assets as compared to other industries. In 2021, these industries collectively accounted for 67% of intangible assets across the market.

Sample Data

- B6. For the sample data 47 Companies (94% of the sample) analysed had nongoodwill intangibles on their financial statements. The largest recorded amount was recorded by the London Stock Exchange at £32 billion (£17.5 billion of which is goodwill).
- B7. 45 Companies (90%) reported goodwill in their financial statements. All of these companies also had some other type of intangible in their financial statements. Goodwill was on average 55% of total intangibles for those companies that had goodwill in their financial statements.
- B8. Total intangibles represents about 2% of total assets reported on the financial statements. This drops to about 1% when only non-goodwill intangibles are considered. This can be contrasted with the evidence presented in the qualitative report that indicated investment in intangibles at a UK level has been roughly equal to the investment in physical capital in the last few years.



B9. The table on the following page shows the distribution of non-goodwill intangibles.





B10. The following table shows the distribution of intangibles by industry.

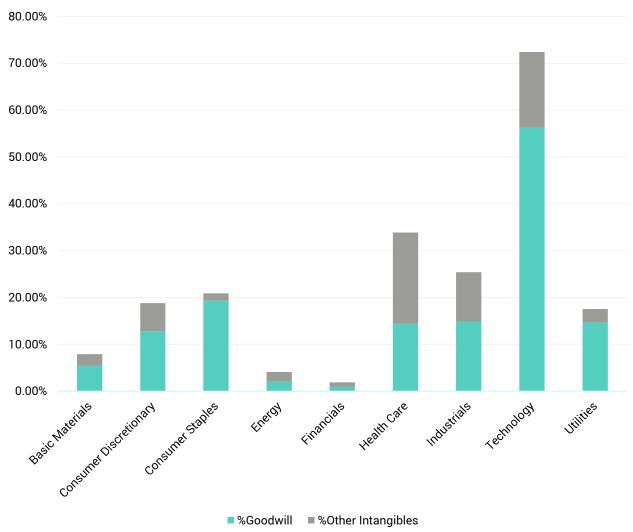


Chart 6: Intangibles/Total Assets by Industry

Intangibles and M&A

- B11. A well-known issue is that intangible assets recognition differs between IAS 38 Intangible Assets and IFRS 3 Business Combinations. This leads to inconsistent accounting between companies that grow organically and companies that grow by acquisitions, something that UK stakeholders almost universally acknowledged as a problem (see UKEB Intangibles Qualitative Report, paragraphs 3.39-3.48).
- B12. This report looks therefore at the relation between M&A activity and intangible assets recognition in greater detail, aiming to draw some inference on the topic.



- B13. An analysis of the economic literature shows that intangible assets may be a driver of M&A activity, as companies that have exhausted their internal growth opportunities acquire intangible assets and technology to expand their business (Levine, 2017; Bhattacharya and Li, 2020). Consistently, some recent papers find that intangibles acquired in a deal have a positive correlation or effect on acquiror's economic performance. For example, Mazulis, Resa and Guo (2023) find that acquirors whose deals are characterised by a higher share of intangible assets (excluding goodwill) have higher stock returns in the three years following the deal.
- B14. Data from Reuters Eikon shows that M&As are economically important in the UK: during 2021, companies in the population considered completed 442 transactions, with a combined value of nearly £74 billion. Over the 2011-2021 period, 476 transactions were completed per year on average with an average yearly value of £54 billion. M&A deals are very concentrated: in 2021 the 20 largest deals accounted for nearly 90% of the total value of deals.
- B15. Statistical analyses show that the year-on-year change in gross intangible assets recognised on the balance sheets of acquirors (excluding goodwill) is highly correlated with the value of mergers: the two indicators show a statistically significant 65% correlation. While this is hardly surprising given the IFRS requirement, it is indicative how intangibles recognition are largely the result of M&A activity.
- B16. An analysis of the 20 largest deals in the 2011-2021 period (see Chart 5 below) shows that, for these 20 deals, on average 33% of the assets recognised in the business combination was allocated to intangible assets, 29% to goodwill and 37% to all other assets. Considering goodwill as a stand-alone category of intangible asset, these figures suggest that intangibles represented nearly two-thirds of the assets recognised in the 20 largest deals over the last 10 years. Academic papers and industry reports found similar results (Mazulis, Resa and Guo, 2023; Lim, Macias and Moeller, 2020; EY India, 2022).



Chart 5: Purchase Price Allocation - most valuable deals

- Proportion of intangibles/total FV consideration including debt
- Proportion of GW /total FV consideration including debt
- Proportion of all other assets (e.g PPE, Inventories etc.)/total FV consideration including debt

Average Imperial Brands PLC- Reynolds (Brand Portfolio) **BAT** -Reynolds American Inc **GSK PLC- Novartis AG-Vaccines Business** AstraZeneca PLC-Alexion Pharmaceuticals Inc Micro Focus - HP Software Business Segment GVC Holdings PLC- Ladbrokes Coral Group PLC Reckitt Benckiser Group PLC-Mead Johnson Co Flutter Entertainment Plc- The Stars Group Inc BP PLC- Reliance Industries Ltd (21 Oil Blocks) Melrose Industries PLC-GKN PLC LSEG PLC-Refinitiv US Holdings Inc BT Group PLC-EE Ltd Informa PLC- UBM PLC AVEVA Group PLC- OSIsoft LLC Vodafone Group PLC-Unitymedia GmbH Standard Life PLC- Aberdeen PLC Aviva PLC- Friends Life Group Ltd Glencore International PLC-Xstrata PLC International Power PLC-GDF Suez Energy Glencore International PLC- Viterra Inc CRH PLC- Lafarge SA & Holcim Ltd BHP Billiton PLC- Petrohawk Energy Corp

33%	29%		38%	
	84%		8	% 8%
6	6%		30%	4
609	%	13%	27	%
54%		17%	30%	5
52%		38	%	10%
46%		39%		15%
45%		40%		15%
45%		45%		10%
40%		34%	26	
39%	16%		45%	
38%		50%		12%
38%		41%	2	21%
37%		57%		79
30%		63%		79
25%	50		25	
	2%		47%	
%		5%		
× 15%		82%		
14%		84%		
8%		91%		
23%		77%		
2370	100			

 $0\% \quad 10\% \quad 20\% \quad 30\% \quad 40\% \quad 50\% \quad 60\% \quad 70\% \quad 80\% \quad 90\% \quad 100\%$

- B17. This analysis alone cannot conclude that intangibles were the main reason for management's decision to embark on a deal, but intangibles do appear to be an important component of deals' value.
- B18. Further evidence will be based on the analysis of financial statements information from the sample of 50 companies.

Intangibles and Economic Returns

B19. One well-known consequence of the differential recognition criteria for intangible assets under existing IFRS Accounting Standards is that book rates of return, such as Return on Assets (ROA) are not comparable between companies that grow



internally and companies that grow by acquisition, as noted for example in an <u>article</u> of the blog The Footnotes Analyst.

- B20. Expensing investment in intangible assets has the following impact on ROA:
 - a) To lower operating profit (the numerator), as typically expenses are higher than amortisation costs;
 - b) To lower total assets (the denominator) as intangible assets are not recognised on the balance sheet.
- B21. While the net effect can't be inferred a priory, expensing intangibles typically leads to a higher ROA.
- B22. A simple model made with plausible generated data shows that expensing intangibles would lead to a higher ROA than capitalising the same expenses.
- B23. An analysis of the same issue using real data was conducted. Pairs of companies with similar characteristics (industry, revenues, assets, liabilities) but different amounts of recognised intangible assets were identified within the population of companies analysed. Companies with low amounts of intangibles were labelled "expensers" and interpreted as companies growing more organically. Companies with more significant amounts of intangibles were labelled "recognisers" and interpreted as companies were labelled "recognisers" and interpreted as companies were labelled "recognisers" and interpreted as companies by acquisition. These assertions were cross-checked against financial statements information and press articles.
- B24. ROAs were compared between pairs of companies:
 - a) Firstly using the data as reported in the financial statements;
 - b) Then excluding all intangible assets and goodwill;
 - c) Then adding internally generated intangible assets estimated by capitalising a proportion of SG&A following the academic practice (Peters and Taylor, 2018).
- B25. The results for one pair of companies is reported in Chart 6. The main conclusion is that unrecognised intangible assets may give a misleading picture of performance indicators, thus forcing users to exclude information or internally generate their own metrics to conduct their analyses. However, in an economy that is increasingly reliant on intangibles that may be an issue.



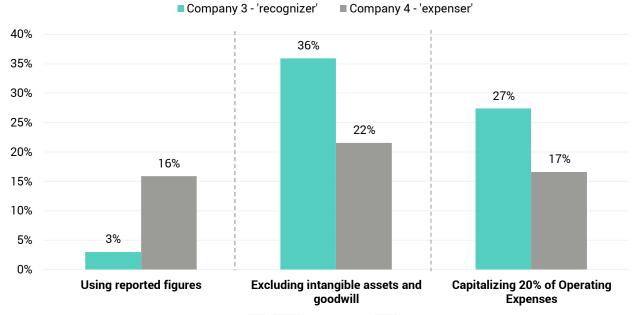


Chart 6: Return on assets under different circumstances

- B26. Capitalising 20% of SG&A for all companies in the population analysed using the perpetual inventory method (see UKEB Intangibles Qualitative Report, paragraphs 2.64-2.65) leads to an estimated £250 billion unrecognised intangible assets. While the Secretariat is conscious of the limitations of this calculation, it is suggestive that the recognition gap may be in the ballpark of hundreds of billions of GBP.
- B27. Next steps will involve:
 - a) estimating unrecognised intangibles using different techniques found in the literature to conduct quantitative analyses for companies in the population, for example on the relation between intangible assets and economic performance; and
 - b) analyse qualitative information in the first halves of annual reports for the sample companies to identify whether a disconnect between information on the strategic importance of intangible assets and the numbers reported in the financial statements, an analysis similar to the one conducted by Dionysiou, Richard, Tsalavoutas and Tsoligkas (2023).