UKEB
UK Endorsement Board

Accounting for Intangibles

UK Stakeholders' Views

March 2023

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Contents

Executive Summary		4
1.	Introduction	10
2.	Intangibles: economic context	20
3.	Stakeholders' concerns with IAS 38	46
4.	Stakeholders' suggestions for potential improvements: opportunities and challenges	62
5.	Next Steps	83
Appendix A:	Glossary	85
Appendix B:	Research methodology	88
Appendix C:	Additional Economic Literature	91
Appendix D:	Participants	95
Appendix E:	References	96

Executive Summary

> "I want to understand what stakeholders think is wrong with IAS 38, and how they think we could improve the accounting for intangibles"
>
> (IASB Board Member)[1]

UKEB research into the accounting for intangibles

1. The UKEB proactively participates in the development of new global accounting standards by:

    a) engaging with UK stakeholders and collecting evidence on relevant technical issues and communicating such evidence to the International Accounting Standards Board (IASB) and to other national standard-setters or regional organisations;

    b) developing potential ways to improve or remedy deficiencies in international accounting standards; and

    c) working proactively with others to stimulate debate on financial reporting matters on the IASB agenda at an early stage in the standard-setting process.

2. The UKEB has embarked on a proactive research project on the accounting for intangible assets, to enable it to gather an evidence base that can contribute to the future work of the IASB on this topic and to ensure that any future standard reflects the views of UK stakeholders.

3. IAS 38 *Intangible Assets* specifies financial reporting for all intangible assets that are not in the scope of another IFRS Accounting Standard.[2]

4. Concerns about the accounting for intangibles are not new. In response to each of the IASB's three agenda consultations, stakeholders have called for further consideration of the accounting for intangibles. The IASB added accounting for intangibles to its research pipeline in response to feedback on its Third Agenda

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1 This comment was made by an IASB Board member when adding a project on IAS 38 to the IASB's research pipeline was discussed at the April 2022 meeting.

2 Other standards also deal with intangible items, such as IFRS 3 *Business Combinations*, dealing with the recognition of intangible assets identified in a business combination, IFRS 6 *Exploration for and Evaluation of Mineral Resources* which includes intangibles relating to certain extractive activities, and IAS 2 *Inventories*, in the circumstances where intangibles are held for sale in the ordinary course of business, something that applies to cryptoassets as per IFRIC's 2019 agenda decision.

Consultation, published in 2022. It is expected that a project on this topic will not begin before 2024.

5. Respondents to the IASB's agenda consultations expressed concerns that:

"relate to all aspects of IAS 38, including its scope, its recognition and measurement requirements (including the difference in accounting between acquired and internally generated intangible assets), and the adequacy of the information it requires to be disclosed about intangible assets." (IASB's Feedback Statement: Third Agenda Consultation, page 27).

6. The core of this report is the views collected from UK stakeholders. These were based on semi-structured interviews with 35 UK stakeholders. Interviews were held with participants in the production and use of general-purpose financial statements.[3] Relevant academic literature is also incorporated into the reporting of the results. This has allowed for the in-depth exploration of a range of views that will inform future work.

7. These views are first contextualised within an analysis of the economic foundations of intangibles. This analysis is derived from a literature review on the role of intangibles in the economy (focussing mainly but not exclusively on UK-based research) and an analysis of the prevalence of intangible assets in the UK based on national- and company-level data.

8. A key element for the UKEB when considering international accounting standards is an assessment of the UK long-term public good. This includes an analysis of whether the use of a standard is likely to have an adverse effect on the UK economy.[4] This means that throughout its work, from research on accounting developments to adoption of a new standard, the UKEB must ensure it is aware of the implications for the UK long-term public good.

9. A thorough understanding of the economic backdrop for accounting for intangibles is important to understand the extent to which current accounting practices reflect the underlying economics of transactions related to intangibles. This should also help the IASB ensure that any future proposals on the topic take into account the underlying economics appropriately.

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3 Namely: preparers from companies of various sizes and industries, analysts, investors, asset managers, credit rating agencies, auditors, other accounting professionals, current and past accounting standard setters, academics, and regulators.

4 See https://www.endorsement-board.uk/endorsement-projects

Accounting for intangibles

10. Section 1 of the report provides background on the accounting for intangibles, including a summary of the current accounting, an overview of the IASB's Agenda Consultation, and previous thinking on intangible items in the UK. It concludes that concerns about the accounting for intangible items are not new.

Economic considerations of intangibles

11. The results of Section 2 (the economic section) highlight that:

    a) The economics literature review demonstrates the importance of intangibles as a determinant of gross domestic product at a national level and show a positive correlation with both companies' economic performance and market-wide financial markets' outcomes (i.e. share prices); and

    b) Data indicates that there has been a significant increase in the economic value of intangibles over the last 15 years, both at a national and company level. However, this increase can only be inferred indirectly as the current accounting recognition criteria mean that many intangible items are not recognised in both national and company accounts.

Stakeholder views on the accounting for intangibles

12. Sections 3 and 4 report the themes extracted from the interviews and incorporate relevant academic literature. These focused on two primary topics:

    a) whether stakeholders believe anything is wrong with the accounting for intangibles under IAS 38[5] (Section 3, summarised in paragraphs 13-14); and

    b) what can be done to improve the accounting for intangibles under IAS 38 (section 4, summarised in paragraphs 14-22).[6]

    No single theme emerged on either topic that could be identified as "the one problem" or "the one solution". However, the interviews enabled us to identify a number of common threads, which are summarised below.

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5 IAS 38 *Intangible Assets* was the main focus of the interviews with stakeholders. Interviews also focused on IFRS 3 Business Combinations, to the extent that it addresses intangibles acquired in a business combination. Interviews however have not focused on goodwill as this has been the subject of a separate IASB project.

6 Some interview time was dedicated to economic fundamentals related to intangibles (relation between intangibles and companies' performance and market prices, recognition of "new intangibles"). As these were not the main focus the themes extracted from these questions are mentioned in the report as appropriate but not in a specific section.

Concerns about the current accounting for intangibles

13. Among the issues identified by stakeholders, a common refrain was that IAS 38 is no longer wholly aligned with the principles in the *Conceptual Framework (2018)* and is not reflective of advances in business that have given rise to new types of intangibles.

14. Beyond this, stakeholders were concerned that the current accounting potentially leads to accounts that are not comparable between businesses with different growth strategies, and more generally financial statements that make it harder to assess a company's value. This was because:

    a) The recognition criteria in IAS 38 often appear to be rule driven, with blanket prohibitions on the capitalisation of certain expenditures, and a high threshold for recognition of development expenditures. As a result, certain expenditure that could potentially meet the recognition criteria for an asset in accordance with the *Conceptual Framework* (2018) is excluded from consideration;

    b) The ability to recognise a far wider range of intangibles on the balance sheet when acquired through a business combination (and hence accounted for in accordance with IFRS 3) was frequently brought up by stakeholders. This approach seems to favour companies growing through acquisitions, rather than organically, when it comes to balance sheet presentation; and

    c) Stakeholders indicated that there were elements of disclosure, both for capitalised and expensed intangible expenditure, that could be enhanced. The lack of disaggregation in expense disclosures, specifically those related to intangibles, was a common concern, especially for users who felt the information would be useful to allow them to develop expectations about the contribution of these expenditures to future cash flows.

15. It is important to note that some stakeholders expressed support for retention of the current accounting approach to intangibles. There were concerns that a move away from the current recognition requirements could lead to over capitalisation in the financial statements. Some stakeholders also suggested that a move to enhanced recognition and disclosure could also introduce additional costs with limited benefit.

Possible enhancements to the accounting for intangibles

16. With respect to potential solutions, stakeholders who were concerned with the current approach took the view that any new approach to accounting for intangibles should be strongly grounded in the Conceptual Framework (2018). They considered that accounting should be principle-based, taking a broader approach relevant both to intangibles that exist today and to those that may emerge in the future. The approach will also need to address the possibility of future developments in both legal and other rights, and related markets.

17. In terms of recognition, some stakeholders showed appetite for recognising more intangibles on the balance sheet. They acknowledged, however, that this would require increased judgement from both preparers and users of financial statements and there were concerns about the potential for reduced understandability of the resulting financial reporting.

18. Those stakeholders seeking further recognition tended to favour a cost model for accounting for intangibles recognised in the financial statements. However, stakeholders noted that for some types of intangibles for which more reliable market measures exist (for example cryptoassets held for investment purposes) a fair value model might be more appropriate.

19. Generally, stakeholders noted that any changes to recognition and measurement of intangibles on the balance sheet would require careful consideration of the relevance and reliability of the financial information while also balancing the cost and benefit of providing the information.

Clear call for improved disclosures about intangibles

20. More disclosures about intangible assets were overwhelmingly identified as a proposed enhancement to the accounting for intangibles, whether or not in conjunction with wider recognition. Users of financial statements in particular called for more granular reporting of expenditure related to individual intangibles (e.g., advertising, training, research). In addition, stakeholders expressed the desire for more qualitative information about key intangibles, especially those that were integral to a company's business model. Stakeholders, for example, would also like to see more than just financial information on these key intangibles, such as information on key performance indicators (KPIs) affected by intangibles.

21. Stakeholders generally argued that any additional information should be included in the notes to the financial statements, rather than elsewhere in the annual report such as the management disclosure in the front half of the annual report. This is because they perceive that, as information in the financial statements is audited and subject to greater regulation, it is taken more seriously by management and therefore carries more weight.

Materiality Matters

22. Greater recognition and disclosure about intangibles, either individually or together, would increase the volume of information included in financial reports. The size of annual reports, and the risk of information being obscured is an area of concern for all stakeholders but was outside of the scope of this research. However, it is clear that materiality will have to be carefully considered. Stakeholders generally indicated that intangibles are an area where they felt qualitative factors outweighed quantitative ones when it came to assessing materiality.

23. The economic trends suggest that intangibles are likely to become increasingly important for business performance. Based on stakeholder feedback, any future accounting standard on intangibles will need to balance any enhanced recognition

with concerns about measurement uncertainty of the future economic benefits. Whatever approach is taken, disclosing more information about material intangibles will be important. Providing the right information that supports user decision making will be key. This will need to address investors' scepticism about the information provided and ensure that all and only material information is provided.

Investors were focused on disclosure

24. Investors are a key stakeholder group and a primary user of financial statement information. A key message to emerge from these stakeholders[7] is that they want more information on intangibles. Those interviewed for this 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 in the balance sheet, as they are not convinced it will always give reliable information. They would rather have detailed disclosures of expenditure on intangibles to allow them to make their own assessment of the potential value that may be created.

Looking forward

25. This report summarises the views of UK stakeholders and relevant literature about the accounting for intangibles in accordance with IFRS Accounting Standards. It reflects key themes extracted from the interviews and wider literature and the views expressed should not be interpreted as the UKEB official position on the topic.

26. The UKEB will use these findings as an evidence base in its future work on intangibles, including future research work, developing its own views on accounting for intangibles and its engagement with the IASB.

27. The UKEB looks forward to contributing to future discussions on the accounting for intangibles. Further research including an examination of financial statement disclosures by UK companies, and further discussion with investors to identify their preferred approach to accounting for intangibles is underway.

7 The investors we interviewed for this report were generally institutional investors.

1. Introduction

> "The biggest challenge I see is to remain relevant in an ever-changing environment. While I think that our literature has generally stood the test of time, there have been changes in the environment that clearly could not have been anticipated when the standards were developed. I am thinking of economies becoming more service than manufacturing oriented as well as the rise of self-generated intellectual property and its non-addressal in the accounts".[8]
>
> Chair of the IASB Andreas Barckow

1.1 Following the results of the Third Agenda Consultation completed in July 2022, the International Accounting Standards Board (IASB) announced that it expects to review the accounting requirements for intangibles within the next few years.[9] While the nature and scope of the project are yet to be finalised, the project is positioned as a "comprehensive review".[10]

1.2 The IASB noted that many stakeholders responding to the Third Agenda Consultation highlighted deficiencies in the reporting of intangible assets relating to all aspects of IAS 38, including its scope, its recognition and measurement requirements and the adequacy of [disclosures].[11]

1.3 The IASB acknowledged that any project on intangibles is likely to be large and complex for both the IASB and its stakeholders. It also noted that the project should "aim to address intangibles more broadly", focussing not just on "assets", but also including intangible items currently expensed.

1.4 In anticipation of an IASB review of intangible items, the UK Endorsement Board (UKEB) decided to initiate a research project focused on understanding UK stakeholders' views on the accounting for intangibles.[12] The UKEB wants to understand whether there are concerns with the current approach to the accounting for, and reporting on, intangibles, particularly under IAS 38 *Intangible Assets*, as well as, for concerns that are identified, possible ways in which these could be addressed.[13] To obtain a better understanding of the landscape, this report considers the economics of intangible items alongside the accounting treatment.

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8 IFRS - Meet the new IASB Chair—Andreas Barckow

9 Feedback Statement: Third Agenda Consultation (ifrs.org)

10 IFRS - IASB pipeline projects

11 Feedback Statement: Third Agenda Consultation (ifrs.org) (pg. 27)

12 The UKEB began developing and researching a project in late 2021 in anticipation of a project examining intangibles being an outcome of the Third Agenda Consultation.

13 For simplicity the rest of the report uses the term "accounting for intangibles" to mean both accounting on and reporting of intangibles.

1.5 This report takes a qualitative approach, drawing from 35 one-to-one interviews conducted with a diverse range of stakeholders. The approach provided an opportunity to understand different perspectives from stakeholders across the accounting landscape. The views heard are contrasted with findings from relevant reports and academic papers, in particular contributions focussing on the UK.

1.6 This report draws out some common themes that point to specific attributes stakeholders are looking for in any solution aimed at addressing the accounting for intangibles. It also provides useful background to inform further research by the UKEB on the topic, with the purpose of supporting its engagement with any future IASB's project on intangibles.

Terminology

> "In a legal, economic or business-related circumstance, there are many different terms that follow [the] intangible concept: intangibles, intangible assets, intangible values, intellectual capital, intellectual property, knowledge assets, invisible assets. They either characterise a particular area of intangibles or are used interchangeably to designate the intangible vision, in general".[14]

1.7 In this report the term "intangible assets" is used to refer to intangible items specifically defined in accordance with IAS 38, or when quoting stakeholders' responses verbatim.

1.8 The terms "intangibles", "intangible item" or "intangible expenditure" are used, depending on the context, to have a more general meaning and include items that may or may not be currently recognised as assets under IAS 38. In the economic section we will use the expression "intangible capital", which is more common in this literature.[15]

1.9 IAS 38 distinguishes between "internally generated" and "purchased" intangibles. The distinction is also used in academic research.[16]

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14 Nichita, Elena-Mirela, Intangible Assets – Insights from a Literature Review (June 1, 2019). Accounting and Management Information Systems, Vol. 18, No. 2, pp. 224-261, 2019

15. The IASB has also started to use similar terminology (i.e., intangible items) for similar reasons. In the IASB's April 2022 paper suggesting they undertake an intangibles project they acknowledge that "although this paper refers to a project on intangible assets… one key issue to consider in such a project is whether it should be limited to accounting for and disclosing information about financial statement elements—intangible assets and expenses arising from expenditure on intangible items—or whether the project should aim to address intangible items more broadly" (paragraph 36).

16. See for example Zambon et al. (2020) "A literature review on the reporting of intangibles".

Background

Intangibles under IFRS Accounting Standards – IAS 38

Scope

1.10 IAS 38 *Intangible Assets* specifies financial reporting for all intangible assets that are not in the scope of another IFRS Accounting Standard. In particular, the following are explicitly identified as outside the scope of IAS 38:

a) Financial Assets (IAS 32 and IAS 39, IFRS 7 and IFRS 9);

b) Certain assets arising from the exploration and evaluation of mineral resources (IFRS 6);

c) Intangible items held for sale in the ordinary course of business (IAS 2);

d) Deferred tax assets (IAS 12);

e) Lease of intangible assets (IFRS 16);

f) Goodwill acquired in a business combination (IFRS 3);

g) Insurance contracts (IFRS 17); and

h) Assets arising from contracts with customers (IFRS 15).

1.11 IAS 38 (paragraph 8) defines an intangible asset as "an identifiable non-monetary asset without physical substance".

a) "Identifiable" means the asset is, either, separable (IAS 38, paragraph 12a), that is it can be split from the other assets of the company and control passed to another entity, or it "arises from contractual or other rights";

b) "Non-monetary" excludes monetary items (IAS 38 paragraph 8) which are "money held and assets to be received in fixed or determinable amounts of money" (primarily financial instruments); and

c) "Without physical substance" is undefined, but presumably can be contrasted with items with physical substance, such as property, plant, equipment, biological assets etc.

1.12 IAS 38 (paragraph 9) provides the following examples of items that could be considered as intangibles "computer software, patents, copyrights, motion picture films, customer lists, mortgage servicing rights, fishing licences, import quotas, franchises, customer or supplier relationships, customer loyalty, market share and marketing rights".

Recognition

1.13 IAS 38 (paragraph 10) goes on to state that to be recognised as an intangible "asset" the following criteria (which were part of the old Conceptual Framework definition of an asset) must also be met:

a) the item is controlled by the entity (IAS 38, paragraph 13); and

b) it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity (IAS 38, paragraph 21). [17]

1.14 In addition to these general requirements for recognition, IAS 38 explicitly prohibits the recognition of "internally generated brands, mastheads, publishing titles, customer lists and similar items" as intangible assets (IAS 38, paragraph 63). The reason for the prohibition is that the cost of generating an intangible asset internally is often difficult to distinguish from the cost of maintaining or enhancing the entity's operations or goodwill.

1.15 Goodwill acquired in a business combination is recognised and measured in accordance with IFRS 3 *Business Combinations* (paragraph 32) and is outside the scope of IAS 38 (paragraph 3). Internally generated goodwill does not satisfy the definition of an intangible asset, as specified in IAS 38, because it is not an identifiable resource. Moreover, IAS 38 explicitly prohibited entities from recognising internally generated goodwill as an asset (paragraph 48).

1.16 Any other internally generated intangibles under IAS 38, other than those explicitly prohibited from recognition, are classified as to whether they arise in a research or development phase. According to the Standard, research expenditure must be recognised as an expense. Development expenditure that meets specified criteria, including demonstrating technical feasibility, the intention to complete and how the intangible will generate probable economic benefits (IAS 38 paragraph 57), must be recognised as an intangible asset at cost.

1.17 These recognition criteria are widely considered as restrictive, both in the academic literature and in the industry.[18] This high bar has historically led to relatively few internally generated intangible assets being recognised in financial statements.

1.18 It should be noted that IFRS 3 *Business Combinations* requires the recognition of all identifiable intangibles in a business acquisition and explicitly acknowledges that this may result in recognising some assets that the acquiree had not previously recognised [including] brand name, a patent or a customer relationship,

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17 The reference to "probable" is understood in accounting to mean "more likely than not" (IFRS 5, Appendix A).

18 These views are noted by the European Financial Reporting Advisory Group (EFRAG): "due to the age of IAS 38 there are concerns about adequacy when identifying, recognising and measuring internally generated assets… [such that] that a fundamental overhaul of the Standard was necessary" (EFRAG, 2019, p. 1–2). Similarly, Davies et al. (1999, p. 916) commented that the recognition criteria are "rather tortuously worded". For instance, the inherent uncertainty of future economic benefits, coupled with an inability to reliably measure such benefits, raises difficulties in separating out the identifiable development costs" (Mazzi, et al. 2022, pg. 8). This shows the difficulties with recognition and measurement of intangibles in the financial statements due to the stringent requirements set by the IAS 38.

that the acquiree did not recognise as assets in its financial statements because it developed them internally (IFRS 3 paragraph 13).

1.19 Much of the language in IFRS 3 is consistent with IAS 38: for example, both talk about the intangible needing to be identifiable, and while IFRS 3 does not require control it is implicit in the *Conceptual Framework* (2018) asset definition. The core difference seems to be that probability is a recognition principle in IAS 38, while in IFRS 3 it forms part of measurement, the latter being more consistent with the *Conceptual Framework (2018),* as discussed later.[19]

Measurement

1.20 Intangible assets that meet the recognition criteria are initially measured at cost (IAS 38, paragraph 24). The cost of an intangible acquired through a business combination is its acquisition-date fair value (IAS 38, paragraph 33).[20]

1.21 After initial recognition, an entity usually accounts for intangible assets using the cost model, i.e., measures an intangible asset at cost less accumulated amortisation and any accumulated impairment losses (IAS 38, paragraph 74). Only when the fair value of a recognised intangible asset can be determined by reference to an active market may an entity choose to account for such intangible assets using the revaluation model. This circumstance is expected to be "uncommon" (IAS 38, paragraph 78).[21]

1.22 At initial recognition, an entity must assess whether an intangible asset has a finite or indefinite life.[22] Intangibles that may be considered to have indefinite lives include brands and licenses granted in perpetuity. An intangible asset with a finite useful life is amortised and is subject to impairment testing. An intangible asset with an indefinite useful life is not amortised but is tested annually for impairment.

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19 With reference to intangible assets, these two recognition thresholds have historically led the balance sheets of companies that grow organically to look different from the ones of companies that grow by acquisition, making the comparison between entities challenging, and leading investors to use non-financial statements information to make capital allocation decisions. As a consequence, there is agreement among both academics and practitioners that "comparability is adversely affected as intangible assets acquired outside a business combination are only recognised if it is probable that the expected future economic benefits, attributable to the asset, will flow to the entity and the cost of the asset can be measured reliably. For intangible assets acquired in a business combination these criteria are always considered to be met". In contrast to this, some users think it is not worthwhile to compare internally generated assets with those acquired given its different nature of risk and reward profiles (CRUF, 2022, Download (efrag.org)).

20 Similarly, in particular circumstances, the cost of an intangible asset acquired by way of government grant or in exchange for a non-monetary item is measured at acquisition-date fair value (IAS 38 paragraph 44 and 45).

21 It must be noted that cryptocurrencies are a recent example of intangible assets commonly traded on active markets. Cryptocurrency holdings are currently classified as intangibles based on an IFRIC Agenda decision in June 2019 (see Box 1). At the time of writing, however, the prevalence among UK companies (and in particular companies applying IFRS) is understood to be limited.

22 IAS 38 paragraph 91 "the term 'indefinite' does not mean 'infinite'. The useful life of an intangible asset reflects only that level of future maintenance expenditure required to maintain the asset at its standard of performance assessed at the time of estimating the asset's useful life, and the entity's ability and intention to reach such a level. A conclusion that the useful life of an intangible asset is indefinite should not depend on planned future expenditure in excess of that required to maintain the asset at that standard of performance."

Disclosure

1.23 IAS 38, at paragraph 118, includes a number of disclosure requirements, including for each class of intangible assets information on:

a) whether they are internally generated or acquired;

b) whether the useful lives are indefinite or finite, and if finite the useful life;

c) the amortisation method for finite life intangibles; and

d) a reconciliation of the carrying amount at the beginning and the end of the period.

1.24 The Standard also requires disclosure of the **aggregate** amount of research and development expenditure recognised as an expense during the period (IAS 38, paragraph 126, emphasis added).

1.25 Companies are encouraged, **but not required** to disclose information on **significant** intangible assets controlled by the entity but not recognised as assets because they do not meet the recognition criteria in IAS 38 (IAS 38, paragraph 128, emphasis added).

The responses to the IASB Third Agenda Consultation

1.26 Calls for the IASB to address intangibles became much more explicit in response to the Third Agenda Consultation, undertaken in 2021.[23, 24, 25]

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23 In February 2010, following the second Constitution Review, the IFRS Foundation introduced the requirement for a three-yearly public consultation on the IASB's technical agenda, known as an Agenda Consultation. The Agenda Consultation provides a channel to seek public input on the IASB's broad strategic direction, as well as the balance and shape of the IASB's work plan. The IASB has undertaken three Agenda Consultations which all featured intangibles.

24 The First Agenda Consultation was undertaken in 2011. The IASB received 245 comment letters. 54 respondents (22%) referenced intangibles, with 19 (8%) stating that a project on intangibles should be a high priority. Respondents' concerns were mixed. The IASB noted that "respondents believe that it is a relevant topic because of the increasing importance of intangible assets in the world market and that an update is due, because IAS 38 is out of date" (IASB, 2012, paragraph 60). Following the first Agenda Consultation, a project on intangible assets was added to the IASB's Research Programme, however it remained inactive: AP8: Research Programme update—2015 Agenda Consultation (ifrs.org).

25 The Second Agenda Consultation was undertaken in 2015. The IASB received 119 comment letters. A review of the comment letters indicates that approximately 40 (33%) of respondents referred to intangibles, though there were mixed views on the level of commitment to be given to a project on intangibles. In the IASB's comment letter analysis the only substantive mention of intangibles was in the context of the Conceptual Framework. Respondents expressed little appetite for undertaking new standard setting projects. However, the UK's Financial Reporting Council (FRC) letter to the IASB noted that "a project to revise IAS 38 *Intangible Assets* should be added to the work plan so that consideration can be given as to whether to amend it to reflect the revised definition of an asset". Nonetheless, no project focusing on intangibles originated from the second agenda consultation: see IASB Work Plan 2017-2021 Feedback Statement 2015 Agenda Consultation (ifrs.org).

1.27 For the Third Agenda Consultation, the IASB received 124 comment letters.[26] The focus of respondents' concerns was:

a) The current Standard, IAS 38 *Intangible Assets,* needs comprehensive review by the IASB as it was published in the 1990s with a focus on manufacturing businesses with primarily tangible assets. The standard is less suited to the current economic environment given the recent shift towards service-oriented businesses;

b) Due to the limitation of IAS 38's requirements, accounting for new emerging assets (e.g., emission trading rights, cloud-based computing arrangements and crypto-currencies) and transactions was seen to be "challenging" both in terms of how to account for these transactions and the information provided to users of the financial statements;

c) Some respondents believe the IASB should revisit the reasons for the differences in the recognition criteria for internally generated intangibles and separately acquired intangibles;

d) Many respondents supported introducing requirements to improve the disclosures of intangibles not recognised as assets; and

e) A few respondents asked the IASB to consider the potential overlap of sustainability with intangible items as these items are one of the key drivers of sustainable business development and sustainability reporting.

1.28 The UKEB comment letter[27] recommended a comprehensive review of IAS 38, noting that any IASB review should address:

a) the extent to which IAS 38 captures relevant information on intangibles, such as cryptocurrencies, pollutant pricing mechanisms, software, and development costs; and

b) whether a separate standard addressing non-financial assets would provide more relevant information where intangibles such as crypto-currencies and emissions trading rights are held for investment.

1.29 Other respondents argued that revisiting the recognition and measurement criteria of intangibles could improve comparability, prevent loss of useful information, and better reflect the importance of intangibles.

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26 81 respondents (65%) to the Third Agenda Consultation, in 2020, referenced intangible items, with 20 (16%) stated that "a project on intangible items was a high priority". https://www.ifrs.org/projects/completed-projects/2022/2020-agenda-consultation/request-for-information-and-comment-letters/#view-the-comment-letters.

27 Final Comment Letter - Agenda Consultation.pdf (kc-usercontent.com).

1.30 Also, respondents noted that entities' value creation in the modern era relies significantly on intangible items. Human capital may be the most critical resource of a business for driving economic returns in the modern knowledge-based economy. Other important intangible items include big data, brands, efficient business processes and customer relationships. Disaggregation of such information about an entity's value creation activities would be helpful for users as it provides insight into an entity's ability to generate future profits and cash flows.

1.31 In April 2022 the IASB confirmed the addition of a research project on intangible items to its work plan.[28]

The debate about accounting for intangibles in the UK

1.32 In the UK, debates about the accounting for intangibles and calls for an improved accounting standard for intangibles are not new.

1.33 In the early 1990s there was no shortage of suggestions on how the information flow on R&D between industry and the City (London's financial community) could be improved. Recommendations have also been made (on the measurement, accounting treatment and disclosure of R&D) in reports by the House of Lords Select Committee on Science and Technology (1991), the Institutional Shareholders' Committee (1992), the Accounting Practices Group of the Chartered Institute of Management Accountants (1992) and the International Accounting Standards Committee (1993). [29]

1.34 Additionally, the Financial Reporting Council (FRC), in its role as a national standard setter, has undertaken two major projects on intangible assets.

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28 The IASB staff paper stated that: "[an intangibles] project should aim to comprehensively review IAS 38. Although developing enhanced disclosure requirements (such as disclosures about unrecognised intangible assets) would help to address user information needs, feedback indicates that other aspects of IAS 38 also should be reviewed. For example, respondents said that IAS 38 is an old accounting standard in need of modernising to reflect the increasing importance of intangible assets in today's business models". The IASB staff suggested that because a comprehensive review of IAS 38 would be both complex and time-consuming it may be better to take a staged approach. They suggested some potential approaches but acknowledged that this would be better considered as part of project planning later on.

29 Nixon (1997) The Accounting Treatment of research and Development Expenditure - View of UK Company Accountants, page 267.

FRC ARP Staff Research Report: Investor Views on Intangible Assets and their Amortisation (March 2014) [30]

1.35 In 2014, the FRC undertook a research project: 'Investor Views on Intangible Assets and their Amortisation' to understand investors' views on intangible assets and whether the reporting requirements in IAS 38 provided useful and reliable information. Overall, investors had mixed views. The paper highlighted several concerns with the accounting for intangibles, especially when acquired in business combinations. The main findings were:

a) Half the respondents wanted a different accounting treatment to that required by IAS 38;

b) Some investors distinguished intangible assets into two types: 'wasting intangible assets' (i.e., with a finite useful life) and 'organically replaced intangible assets' (i.e., with a potentially "indefinite" useful life to a company) and suggested amortisation of wasting intangible assets and an impairment only model for organically replaced intangible assets;

c) Others suggested an impairment review, rather than periodic amortisation for all intangible assets acquired in business combination;

d) With regard to internally generated intangible assets:

i. most respondents agreed with capitalising development costs for internally generated assets in line with IAS 38; and

ii. there were contradictory views on research, with a few respondents suggesting capitalising all research costs while others suggested expensing all research (a few even advocated expensing all development).

e) Many investors expressed the view that separately acquired intangible assets should be capitalised and amortised.

1.36 Most investors were dissatisfied with the quality of disclosures, especially as the information about the objective of business combinations and the purpose of intangible assets acquired was not always provided. Investors also wanted to see this information forming part of subsequent post-acquisition reviews (specifically the extent to which objective and purpose had been met) undertaken by management.

30 ResearchProjectonintangibleassetsMarch2014.pdf (frc.org.uk).

Business Reporting of Intangibles: Realistic proposals

A Discussion Paper prepared by staff of the UK Financial Reporting Council (February 2019)[31]

1.37 The FRC paper 'Business Reporting of Intangibles: Realistic proposals' was published in 2019 to add to the international debate and gather stakeholders' views to influence the IASB. The objective was to explore reasons why intangibles are not fully reflected in financial statements and develop practical proposals to improve business reporting.

1.38 The report concluded that the definition of assets and recognition criteria in the *Conceptual Framework* (1998) restricted the recognition of many intangibles. Given the revision of the *Conceptual Framework* during 2018, the paper considered that reporting, particularly of internally generated intangibles, could be enhanced in line with the new framework. It also considered the possibility of addressing the reporting of intangibles outside of the financial statements e.g., in narrative reporting.

1.39 Disclosures about expenditure on intangibles were highlighted as an important area for improvement. The report noted that disclosures about 'future oriented intangibles', expensed in the current period but whose purpose is to drive benefit in subsequent accounting periods, were poor. Better disclosures would go some way to addressing the issue of earnings management as there is a time lag between incurring expenditure on intangibles and the return received from it in future.

1.40 In addition to the above, narrative reporting in the management commentary section of an annual report was identified as another way to provide information on unrecognised intangibles. In particular, this could include focussing on intangibles relevant to an entity's business model and requiring common metrics and agreed definitions and calculations to promote comparability of information on intangibles.

1.41 Concerns about the accounting for intangible items are not new. Recognition, measurement and disclosure have all been identified as challenging areas. This has led to calls for consideration of possible changes to the current requirements, both internationally and in the UK.

1.42 The next section examines the economics of intangible items. It provides a framework to better understand current accounting practices, the concerns stakeholders have about them, and any proposed solutions.

31 00 Intangibles-title 1..2 (frc.org.uk).

2. Intangibles: economic context

> "**Financial reports represent economic phenomena** in words and numbers. To be useful, financial information must not only represent relevant phenomena, but it must also faithfully represent the substance of the phenomena that it purports to represent". (Conceptual Framework (2018), paragraph 2.12, emphasis added)

2.1 This section considers intangibles (in economics often referred to as "intangible capital") from an economic perspective.[32] From an accounting perspective, a key consideration is the extent to which intangibles have the potential to provide economic benefit to a company. The first half of this section therefore reviews the economics literature to consider the importance of intangible assets from an economic perspective. Specifically, this section:

a) discusses the contribution of intangible assets to national production and economic growth, as well as the extent to which intangibles are unaccounted for in national accounts (macroeconomics);

b) sets out a review of the literature on the positive correlation between intangibles and companies' performance (particularly productivity) and KPIs (microeconomics); and

c) examines the effect of intangibles on companies' returns and price informativeness[33] (financial economics).[34]

2.2 Accounting aims to reflect companies' underlying economics,[35] and it could be argued that the economic literature supports intangibles being more broadly recognised on companies' balance sheets. To examine and provide more context to this argument, the second half of this section considers the prevalence of intangible capital in the UK economy, focussing on both national accounts and statistics, as provided by the Office for National Statistics (ONS), and individual companies' accounts.

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32 In this section we refer to "intangible capital" to distinguish how the concept is used in the economics literature from its specific use in the international accounting context (see paragraph 12). To avoid repetition, we may also use the term "intangibles" within this section.

33 Price informativeness refers to the degree to which asset prices convey information about the underlying assets. It is a concept widely explored in the academic literature in financial economics, asset pricing and market microstructure. For seminal contributions see Hasbrouck (1991a, 1991b). For a recent contribution, see Alderighi and Gurrola-Perez (2021).

34 The issues described fed into the design of our interview questions and helped instruct discussions with interviewees that went beyond technical accounting considerations.

35 The term "economic" appear 239 times in the conceptual framework. Paragraph 2.12 of the Conceptual Framework (2018) states that "Financial reports represent economic phenomena in words and numbers. To be useful, financial information must not only represent relevant phenomena, but it must also faithfully represent the substance of the phenomena that it purports to represent".

2.3 The evidence shows that, in spite of the fact that intangibles have grown in both national and companies' accounts over the last 15 years, they might have grown even further if it were not for the recognition criteria of IAS 38 that prohibit the recognition of a wide range of intangibles.[36]

2.4 Key lessons from the economics literature and data analyses instructed the questions asked and themes explored during interviews held with UK stakeholders, which, therefore, directly influenced the empirical strategy pursued in the report.

Intangible capital: what are its main features and why does it matter for financial reporting?

2.5 Intangibles have been a key driver of innovation of products, processes, productivity and economic growth for many years. In the contemporary economy, commonly labelled the "knowledge economy", the importance of intangible capital has become greater and more pervasive.[37]

2.6 The expression "knowledge economy", was introduced by Peter Drucker (1969), as he predicted first the emergence of the "service economy", i.e., an economy skewed towards services with a reduced reliance on manufacturing.[38] This would transition to the knowledge economy with the fast spread of information and communication technology (ICT) (see Appendix C, paragraph C3, for a definition of knowledge economy that explicitly refers to intangible capital).[39] Drucker's knowledge economy is characterised by:

a) greater importance of knowledge-based service sectors;

b) a higher proportion of skilled to unskilled workers;

c) a greater relevance of research-driven innovation; and

d) importantly, a higher reliance on intangible capital for value creation.

2.7 Economics literature has long recognised the contribution of intangible capital to the economy broadly, and companies specifically. It is understood as "skills, organisational structures and processes, culture, and other factors", [40] that enhance firms' productivity and growth, and influence their share prices. However, because of its inherent characteristics, economists have shied away from providing more prescriptive definitions for intangible capital, besides recognising

36 A significant propostion of intangible assets are potentially 'off-balance sheet' due to accounting rules prohibiting their recognition (the recognition gap) and specifying measurement that does not capture all of their current economic value (the measurement gap).
37 Powell and Snellman, 2004.
38 A phenomenon in turn labelled post-industrialism or post-Fordism, see Bell, 1976.
39 Hope and Martelly, 2019, and references therein.
40 Brynjolfsson, Hitt and Young, 2002.

that to be called “assets” or “capital” they should be a resource, the economic benefits of which are reaped over the future periods.[41]

2.8 From an economic perspective, intangible and tangible capital share some common features: they both have a durable impact on a company’s performance and their returns are reaped over future periods. In addition, the value of both tangible and intangible capital, in the absence of further investment, depletes over time.[42]

2.9 Economists have, however, identified features that distinguish intangible from tangible capital, the most common and relevant of which are that intangible capital:[43]

a) **Invisible**: lacks physical substance and needs a storage medium;[44]

b) **Tacit**: may be implicit knowledge embedded in people;

c) **Non-rivalrous**: can be used simultaneously by multiple users without depleting the asset or reducing its usefulness;

d) **Partially excludable**: has property rights over it which cannot always be easily defined or enforced;

e) **Non-tradable or traded in imperfect markets**: is often internally generated and while things are changing, intangibles are still often non-fungible and therefore non-tradeable. When they are traded, they are typically traded in imperfect markets;

f) **Non-separable**: often cannot be separated from the business where it is created without loss of value; and

g) **Complementary**: often adds value in conjunction with other types of capital, either tangible or intangible, and labour.

41 See Thum-Thysen, Voigt, Bilbao-Osorio, Maier and Ognyanova (2017).

42 Both defining features of assets: see Thum-Thysen et al., 2019; Crouzet, Eberly, Eisfeldt and Papanikolau, 2022. We note that in some instances, international accounting rules allow the recognition of intangible assets with indefinite useful life, for example brands (when acquired in a business combination, as per IFRS 3).

43 The below list is distilled from Crouzet, Eberly, Eisfeldt and Papanikolau, 2022; Haskel and Westlake (2017); Andrews and de Serres (2012); Villalonga (2004). The features listed in paragraph 2.10 are not necessarily expected to be present all at the same time.

44 See the pioneering theoretical framework of Crouzet et al. (2022) in particular, where the need for a storage medium is emphasised as one of the two defining characteristics of intangibles alongside with being non-rivalrous.

2.10 These features have important economic consequences commonly found across companies, industries and economies that invest more in intangible capital because:

a) **Higher productivity**: intangible capital complements other capital and creates synergies within the organisation, and is therefore typically found to enhance productivity;[45]

b) **Spill over effects (externalities):** [46] intangible capital has sizable positive spill over effects, and positively contributes to productivity, salaries, training and enhancing skills and human capital beyond the boundaries of the firms that invest in them;[47]

c) **Network externalities**: in some instances, due to its non-rivalrous and invisible nature, intangible capital is a main contributor to network effects, which arise when "the value of a good or service increases for both new and existing users as more customers use it; the more existing users there are on a network, the more attractive it becomes for newcomers"; [48]

d) **Sunk costs**: investment in intangibles is often neither separable from the company, nor tradeable; in some instances it is non-recoverable;[49]

e) **Risks and uncertainty**: intangible capital is difficult to liquidate, which makes assessing its recoverable value more complicated and lending to companies that invest in intangibles possibly riskier; and[50]

f) **Lack of measurability**: intangible assets are notoriously difficult to measure,[51] which makes company valuations by equity investors more challenging.[52]

2.11 Many of these characteristics and their economic consequences make the identification and measurement of intangible assets difficult – something that is evident in the accounting for intangibles prescribed by IAS 38.

Why intangibles matter for the national economy

2.12 This section looks at intangible capital from a macroeconomic perspective, as the economics literature has emphasised its importance as a determinant to gross domestic product, but also its absence from national accounts due to measurement issues and national accounting rules.

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45 Brynjolfsson, Hitt and Young (2002); Hall (1993); Griliches (1981); Lev and Sougiannis (1996); Bresnahan, Brynjolfsson, and Hitt (2002).

46 Spillovers or externalities are situations in which the activities of one agent in the market induce external effects (either positive or negative) on other agents in that market.

47 See Department of Business, Innovation and Skills (2012), and in particular Tables 16 and 20; see Goodridge, Haskel and Wallis (2017).

48 Quote from Morningstar (2017); see also Intermede (2020).

49 See Hölzl (2005) and literature therein.

50 Thum-Thysen et al. (2017). Andrews and de Serres (2012).

51 "Measure" is here intended in the layman's rather than the accounting meaning of the term.

52 See Martin and Baybutt (2021), Martin (2019) and paragraphs 2.21-2.24.

2.13 The contribution of intangible investment to macroeconomic growth, and the issues of recognising and measuring intangible investment in national accounts, from which they are largely absent, are all extensively researched. As discussed below there is a relationship between national accounts/statistics and companies' accounts. National accounts/statistics on intangible assets are estimated by surveying companies, which face the same recognition and measurement difficulties we see in accounting when submitting their responses to national statistics institutes. Accordingly, under-recognition of intangible assets in financial statements negatively impacts the quality of the data submitted to national statistics institutes and, subsequently, the quality of the information they publish.

2.14 In its simplest form, the output of a closed economy (that is ignoring international trade) can be described as the sum of three items:

a) consumption by households;

b) investment in productive goods; and

c) government expenditure.

2.15 In their seminal contributions, Corrado, Hulten and Sichel (2005 and 2006; referred to as the CHS framework; see Appendix C, paragraphs C4-C5 for further information) noted that intangible capital had, historically, not been considered as an input of production in economic models, where only labour and physical capital were typically introduced. Consequently, investment in intangible capital was not being accounted for at a national level. Within most economies, large parts of GDP and related economic growth were being neglected, both as investment in productive goods and output itself.[53]

2.16 Since its publication, the CHS framework has influenced both national and international accounting systems, so that research and development is now considered a component of investment in many national accounts.[54] However, many other intangible items (such as brands, training or design) are still not widely accounted for at a national level (see Martin, 2019), though some statistics offices (including the ONS) calculate experimental statistics for intangible investment not officially accounted for.[55]

2.17 With reference to the UK, Goodridge, Haskel and Wallis (2014) apply the CHS framework to estimate UK intangible investment at a national level and its contribution to economic growth. While the paper's results are now dated (the most recent set of results displayed in the paper dates to 2009), the significance of their findings still stands. The paper found that, as of 2009, national intangible investment, (£124 billion), had surpassed tangible investment (£94 billion).[56] Of

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53 See also Nakamura (2003a, 2003b, 2010).

54 For example the UN System of National Accounts (SNA) and the European System of Accounts (ESA).

55 This literature is relevant to our report for two reasons: firstly, the issues faced by national accountants and statisticians when dealing with the recognition and measurement of intangible investment and assets are (unsurprisingly) very similar to the ones faced by standard setters and companies' accountants. Secondly, correctly recognising and measuring intangible assets at a company level is important to help measure national output and therefore contribution of private investment to the long-term public good.

56 For more recent estimates by the ONS see paragraphs 2.47-2.53.

this, 70% was internally generated investments. Organisation capital (see Appendix C, paragraph C5) was the largest category, accounting for 21% of the investment, followed by software (18%), design (12%) and R&D (11%).

2.18 The authors also estimated that intangible investment positively contributed to national productivity in the UK. According to the authors, during the period 2000-2009 intangible assets accounted for 26% of the growth in value added per hour worked. The joint contribution of intangible capital and tangible investment in ICT (computer and telecommunication) accounted for 45% of the growth in value added per hour worked.

2.19 In separate contributions, these authors have examined whether unrecognised intangibles can help explain the UK productivity puzzle. That is, an observed slowdown after the financial crisis in both labour productivity (output per hour) and total factor productivity (see The Economist, 2022), could be (at least partly) due to recognition issues. Their results suggested that "unmeasured intangibles are part of the explanation of the productivity puzzle" but not all of it. See Appendix C, paragraph C6 for further details.[57]

2.20 All these results, taken together, suggest that intangible capital is important at a macroeconomic level: it is a relevant component of national production, and positively contributes to national productivity. As such, reflecting intangible capital in national statistics, from which it is largely absent, would provide a better picture of a country's performance. Better measurement of intangibles at a national level would contribute to explaining the productivity puzzle. As discussed below, our research suggests that better recognition of intangibles at a company level could feed into better accounting at a national level.

National vs companies' accounting

2.21 As noted, intangibles are considered key drivers of the knowledge economy. Despite their importance, a relatively limited number of intangibles are currently recognised in both companies' and national accounts. While the two accounting systems have different purposes and follow different frameworks, interviews with stakeholders and papers on the topic suggest that the practical challenges are similar for both.

2.22 In particular, national accounts and statistics on intangibles are typically estimated based on surveys of individual companies. The fact that intangibles are not recognised at the company level is likely to make it more challenging to estimate them for the purposes of responding to national statistics surveys. This lack of data potentially affects the quality of national statistics/accounts.

57 For a review of additional relevant contributions in the field of macroeconomics, see Appendix C.

2.23 Research suggests that companies face difficulties responding to national statistics surveys, which are similar to the ones raised by stakeholders about IAS 38. Specifically:

a) **Capitalising vs expensing** – As internally generated intangibles are produced in the course of business it is not always easy for companies that respond to ONS surveys to separately identify the portion of intangibles related to the current period and that related to the future, (which should be capitalised). This often leads to underreporting and inconsistent responses for intangible investments in surveys submitted to the ONS (Martin and Baybutt, 2021);

b) **Ability to identify intangibles as stand-alone items** – Interviews suggested that companies often struggle to identify intangibles as stand-alone items, resulting in management not measuring, recording or reporting their value for the purposes of their responses to ONS surveys. This is particularly true for new types of intangibles such as databases of personal information, where it is difficult to even identify what the specific asset is or to assign a value to it; and

c) **Control over the expected economic benefits** – Interviews with stakeholders suggested that respondents to ONS surveys tend to have a more complete picture of the intangibles they hold, and their value, when they exert ownership over them. Ownership is not understood as *legal* ownership, rather as *economic* ownership: that is the ability to reap future economic benefits from an asset when possessed, though not necessarily owned (e.g., a lease). Yet, failure to assess economic ownership leads to the inability to report information about intangibles, which leads to underreporting.

2.24 Given that the challenges faced are similar, it is possible that improved accounting for intangibles at a company level may translate into better national reporting for intangibles.

Why intangibles matter for individual companies

2.25 This section reviews the microeconomics literature that has (extensively) studied the relationship between investment in intangible capital and company performance, generally finding a positive relationship.[58] These results suggest that enhanced information about intangible capital would be an important element of evaluating a company's ability to generate profits in the long run, arguably leading to more efficient capital allocation.

[58] Firm-level capital market outcomes are discussed separately in the following section.

2.26 Academics have focused attention on the relationship between intangible capital and company productivity. With reference to the UK, Riley and Robinson (2011) estimate the impact of the three types of intangible capital identified in the CHS framework on company-level output and find that they are positively associated with company output. The paper emphasises sectoral differences, with intangible capital linked to higher productivity more in the services than in the manufacturing sector.

2.27 A paper by Marrocu, Paci and Pontis (2011) estimates the relationship between intangible capital and production (measured as value added) at a country level using company-level and regional data from six European countries, including the UK.[59] The paper finds a positive correlation between intangible capital and value added, considering all countries together. This relation is even stronger than the average when the model is estimated for the UK only. This finding is consistent with the UK being a knowledge-based economy.[60]

2.28 Other company-level outcomes have been discussed in the literature. Using UK company-level data Nemlioglu and Mallick (2017) find that companies that are R&D intensive and have more organisational capital[61] (as estimated in their paper by good managerial and innovative practices) tend to perform better in terms of profitability. They caveat that during economic downturns companies skewed towards intangible capital may have worse valuations than in better times, as intangible assets are more difficult to liquidate.

2.29 Turning to other countries, Villalonga (2004) finds that intangible capital positively affects companies' competitive advantage in the US; Montresor and Vezzani (2016) using EU data shows a positive relation between intangible capital and productivity; Di Cintio, Ghosh and Grassi (2017) find that intangible capital is associated with more exports and economic growth in Italy). These results suggest that intangible capital is important across jurisdictions.

2.30 For a review of additional relevant contributions in the field of microeconomics, see Appendix C.

59 The paper differentiates between intangible capital, measured at a firm level, and human, social, technological and public capital, measured at a regional level. We refer to the paper itself for more detailed definitions of these capitals.

60 The main focus of this report is UK-based research. Research focusing on other countries is summarised in Appendix C.

61 The concept of organisational capital, firstly introduced by Prescott and Visscher (1980), refers to information embedded in employees that allows enterprises to match employees to jobs, match employees to work teams and enhance human capital through on-the-job training. See Lev and Radhakrishnan (2012) for a comprehensive summary of organisational capital definitions. See also Squicciarini and Le Mouel (2012).

Why intangibles matter for capital markets

2.31 This section reviews the relationship between intangible capital and capital market outcomes, such as stock prices and their information content. Research has shown that companies that invest more in intangible assets are, on average, associated with better share price performance and other positive market outcomes. This is consistent with the fact that intangible assets are generally associated with higher profitability and better company performance.[62,63]

2.32 One reason to look at the financial economics literature is that the accounting for intangible assets can directly affect widely used financial indicators such as market-to-book ratios. One empirical regularity in financial economics traditionally explained by the lack of recognition of intangible assets is the market-to-book value puzzle (Lev, 2001), i.e., evidence, largely based on US data, that the market-to-book ratio for value stocks has been disproportionately high for a number of years. Lev (2001) suggests that unrecognised intangible assets can largely explain the phenomenon. Hulten and Hao (2008) attempt to solve the puzzle by adjusting book values for intangibles. The authors find that excluded intangible items explain between 40-50% of the market value of R&D intensive companies, suggesting that they contribute to explaining the puzzle but are only part of the explanation.

2.33 Some recent contributions explore the relationship between intangibles and share prices. Bongaerts, Kang and Van Dijk (2022) find that, on average, companies with a higher proportion of intangible assets outperform companies that invest less in intangibles, generating an economically significant average excess return of 4.6% per annum. The results still hold when excluding big tech companies (Amazon, Apple, Facebook, Google, Microsoft, Netflix and Tesla, considered as a tech company in the paper).

2.34 Financial statement information about intangible assets has also been demonstrated to convey relevant information that is reflected in stock prices. For example, Oswald, Simpson and Zarowin (2020) took advantage of the transition from UK GAAP to IFRS Accounting Standards in 2004/2005 to estimate whether the asset recognition of development expenditure, mandatory under IFRS Accounting Standards, reflects information into stock prices. Using the transition as a natural experiment, they find that asset recognition of development expenditure adds relevant information to stock prices. Importantly, they find that pre-IFRS adoption, the market could not infer what portion of R&D expenses constituted investment, suggesting that explicit requirements to capitalise intangibles convey relevant information to users of financial statements (the paper did not focus on notes disclosures).

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62. These are discussed in a separate section as the economic theory, the empirical techniques and the data utilised to estimate the empirical models are substantially different from the ones used in microeconomics.

63 Extra care was taken to ensure that the academic studies cited in this section provide evidence based on normal market conditions (i.e. based on trading periods characterised by no exceptional market-wide events) and that the evidence reported is robust across academic studies and therefore broadly generalisable. However, it should be noted that the evidence provided in studies that use market data may be applicable to that specific market or dependent on market conditions.

The emergence of new intangibles

2.35 This section reviews the emergence of "new intangibles", i.e., asset types that possess the characteristics of intangible capital, have risen to prominence in recent years, are currently drivers of companies' value and performance, but would largely remain unrecognised on companies' balance sheets because of the recognition criteria set by IAS 38.

2.36 Both academics and industry practitioners have identified several new intangible asset types which have risen to prominence largely as a result of developments by the US and Chinese tech companies.[64] These intangibles, which could be broadly categorised as "digital assets", are primarily related to the spread of artificial intelligence (AI) algorithms used by tech companies for different purposes, such as to commercialise their products, enhance user experience, or improve their own decision making.

2.37 **Digital capital**: A 2020 paper, focusing on the US, showed that listed companies have become more digital capital-intensive over the last 20 years. The amount of digital capital is disproportionately greater in companies in the highest decile of market capitalisation, which includes "superstar" tech companies. The authors estimate that digital capital positively contributes to companies' productivity. See more detail in Appendix C.

2.38 **Big data**: Thanks to recent technological advancements, and especially developments in AI technology, (some) companies are now able to collect, store and analyse large amounts of data (including personal data) on an unprecedented scale (hence the name "big data", popularised by the computer scientist John Mashey in the 1990s). This data is used both for commercial purposes and to enhance internal decision-making processes.[65] Due to big data's increasing importance as a driver of productivity and source of competitive advantage, some contributions have discussed whether personal data can effectively be considered as a stand-alone asset class, and if so, how to measure it.

2.39 A 2021 paper analyses US tech firms' governance practices to infer what constitutes an asset in relation to the economic exploitation of personal data. They conclude that it is not ownership (personal data cannot be owned) or access rights to the data that are required to provide asset value. Rather, it is the interaction between access rights and technology used to convert that very same data into user metrics to track, record and measure user engagement on their platforms.[66,67]

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64 See Autor, Dorn, Katz, Patterson and Van Reenen, 2020; Tambe, Hitt, Rock and Brynjolfsson, 2020.

65 There is extensive literature showing that Big Data Analytics (BDA) is a driver of competitive advantage (see Corte-Real, Oliveira, Ruivo, 2016, and references therein; see Wamba et al., 2017) and innovation (Ghasemaghei and Calic, 2020).

66 Birch, Cochrane and Ward (2021).

67 The issue of the extent to which companies "own" the data is expected to be a topic of increasing importance, especially considered in relation to privacy laws. See Janeček (2019).

2.40 A 2022 paper[68] analyses the issues of classification, recognition and measurement of big data from an accounting perspective. Although data is usually stored in servers, the authors establish that data in itself lacks physical substance and is separable and identifiable and therefore in principle meets the requirements of IAS 38. The authors assess alternative methods for recognition and measurement and conclude that recognition at cost is the most prudent. However, the authors deem fair value potentially suitable when there is enough data from users and collectors to measure the market value of data assets, e.g. when users access data trading centres.

2.41 **Artificial intelligence**: Corrado, Haskel and Jola-Lasinio (2021) investigate whether investment in artificial intelligence (AI) can help explain the market-to-book ratio puzzle (see paragraph 2.32) and the productivity puzzle (see paragraph 2.19), as currently unrecorded investment in intangible assets is not accounted for as output; depressing productivity measures. The authors provide evidence that investment in AI has increased dramatically over the last 20 years. They suggest that, because AI encompasses different aspects of a company's investment strategy, some AI investment may already be captured by national accounts and statistics, e.g., software development. However, they believe that part of AI investment is still unmeasured. Empirical analyses suggest that taking AI investment into account would not fully explain the productivity puzzle.

Cryptoassets

2.42 **Cryptoassets**: According to the UK government, cryptoassets are "a cryptographically secured digital representation of value or contractual rights that uses a form of distributed ledger technology (DLT) and can be transferred, stored, or traded electronically". DLT technology is associated with a variety of products, the most prevalent of which are cryptocurrencies. From an economic perspective, at the time of writing most[69] cryptoassets are generally used as financial rather than intangible assets, as also emphasised by calls from financial regulators worldwide (including the SEC in the US and the BoE and the FCA in the UK) to regulate this market. Box 1 discusses the economic prevalence, accounting treatment and stakeholder views of cryptocurrencies (the most prevalent cryptoasset) in greater detail. Some additional references to the topic can be found in Appendix C, paragraph C12 on.

68 Xiong, Xie, Zhao, Lin and Fan (2022).

69 "Most" is herein understood in terms of money invested. We recognise the existence of cryptoassets such as utility tokens or non-fungible tokens that are not used as financial assets, though at the time of writing their prevalence was much lower than cryptoassets used as financial assets. Non-financial cryptoassets may become more prevalent in the future, so we are monitoring developments in this space.

Box 1 – Cryptocurrencies: prevalence, accounting treatment and stakeholders' views

1. Cryptoassets refer to a wide range of digital assets, including cryptocurrency, tokens, stablecoins and non-fungible tokens. **Cryptocurrencies,** the fungible assets directly originating from specific distributed ledger technology (DLT) (e.g. Bitcoin, Ethereum), are the most prevalent cryptoassets at the time of writing.

2. Cryptocurrencies are volatile. The market capitalisation of cryptocurrencies reached a peak of nearly USD 3 trillion towards the end of 2021, following a hike during the Covid-19 pandemic. Subsequently, the value of cryptocurrencies decreased, stabilising at around USD 1 trillion between May and November 2022. Following the filing for bankruptcy of FTX, a cryptocurrency exchange, the value of cryptocurrencies further declined. As of 23 November 2022, assets under management invested in cryptocurrencies were just above USD 805 billion, as reported by Coinmarketcap.com, a website (inaccuracies of the trading data on individual cryptocurrencies from this website have been reported in the past, though cross-checks with other sources performed by the UKEB Secretariat confirm that the overall market movements reported on the website are reliable). Of these, roughly 35-40% were attributable to Bitcoin, the largest by value, followed by Ethereum (15-20%), Tether (7-10%) and other currencies.

3. The IASB has continued to monitor the accounting for cryptocurrencies. The IFRS Interpretations Committee issued a final agenda decision in June 2019 mandating that cryptocurrency holdings should be classified as intangibles assets under IAS 38 or, if held for sale in the ordinary course of business, as inventory under IAS 2 *Inventories*. Some academic research, however, considered that accounting for cryptocurrencies as intangible assets does not reflect the underlying economics, both in terms of classification, and recognition and measurement (see Barth (2022), Sixt and Himmer (2019), Prochazka (2018), Tan and Low (2015). See also AASB (2016). In March 2021, the IASB included the accounting for cryptocurrency among the potential topics for its Third Agenda Consultation. Most stakeholders responding to the Third Agenda Consultation, including the UKEB, rated both cryptocurrencies and intangible assets as potential projects with a high priority. However, the IASB has chosen not to focus on cryptocurrencies at this point in time.

4. In general, stakeholders interviewed for this research did not raise issues regarding the classification of cryptocurrencies as intangible assets. However, they raised concerns about measurement, suggesting that an accounting model similar to IFRS 9 *Financial Instruments* (which uses fair value measurement when assets are held for the purpose of trading/investing) would be more appropriate for cryptocurrencies. However the recent swings in valuation of cryptocurrency (related in some cases to their illiquidity and imperfect trading markets) may indicate the significant measurement uncertainty attached to such an approach.

5. A preparer noted that accounting for cryptoassets as intangible assets forces companies with crypto-asset holdings into accounting that does not reflect the underlying economics. They did not question the "intangible" classification as such but suggested that the accounting should allow for cryptoassets to be measured in a way that reflects their intended use, specifically at fair value through profit and loss when assets are held for trading/investing: "Classification should focus on the usage [business model]. The intangible item could be being used for financing, investing or operating activities. This then should also relate to the measurement model. Fair value is a good way to avoid impairment issues".

6. Classification and measurement issues are faced by national accountants too. From interviews it emerged that cryptocurrencies could not be considered akin to financial assets in that context too because of the lack of an underlying contract. In addition, it is difficult to reach international consensus on this issue as high volatility could cause problems in smaller emerging economies that host active cryptocurrencies markets, as market swings would have a disproportionately large effect on such economies, creating some reluctance towards inclusion in national accounts.

Main takeaways from the economics literature

2.43 Intangible capital is a defining feature of the knowledge economy, something that underpins companies' competitive advantage and defines business models and organisational structures. However, intangible capital is inherently difficult to identify, and individual intangible assets are challenging to separate from each other. Often, intangible assets are not traded in organised markets (or traded at all), which makes them relatively complex to value.

2.44 Due to its complexity, there has been resistance to add accounting for intangibles to national accounts. This has led to under-reporting at a macroeconomic level. The economics literature, however, has found that intangible assets do make important contributions to the economy, and has proposed ways to account for these assets at a national level. At a microeconomic level, research has shown that intangible assets are an important determinant of firms' profitability, productivity and competitive advantage. This is reflected in stock price performance, and informativeness (the information content of share prices).

2.45 Taken together, these findings suggest that recognition of a wider range of intangibles at a company level is desirable from both a microeconomic and macroeconomic perspective. From a microeconomic point of view, more and better information on intangibles would be relevant to assessing companies' economic performance, thus facilitating a more efficient allocation of capital by users of accounts. At a macroeconomic level, better accounting and disclosures at a company level can feed into better measurement of investment, and therefore GDP, at a national level.

How prevalent are intangibles in the economy?

2.46 We next turn to assessing the economic prevalence of intangible capital in the UK economy (using national data) and in UK companies (using individual company data). The purpose is to:

a) understand whether the amount of intangible assets recognised in companies' balance sheets has increased over the last 15 years; and

b) obtain a general idea of the extent to which intangibles may be unrecognised from both national accounts and companies' accounts.

Prevalence at a national level

2.47 This section looks at the prevalence of intangibles at a national level, using ONS national accounts as well as other data (see paragraph 2.46), showing that investment in intangibles has now surpassed investment in tangible assets. The section also provides a breakdown of intangible investment at a national level by asset type.

2.48 Intangible assets have traditionally been absent from national accounts, in the UK and internationally. However, based on the CSH framework (see paragraph 2.15), and thanks to the work of a group of UK academics as well as ONS economists and statisticians, R&D was first introduced into UK national accounts in 2014.

2.49 The Bean review, a 2016 independent review of UK economic statistics, emphasised the importance of intangible capital for the UK economy and the need for a more comprehensive measurement of intangible assets in UK national accounts. While a large portion of intangible investment is not yet included in official UK national statistics, the ONS calculates and publishes estimates of investment in intangibles at a national level for the market sector (the so called "experimental statistics").

2.50 For our purposes, the existence of this data is important for two main reasons:

a) It provides an estimate of the prevalence and value of intangible assets in the UK and can therefore be used to infer the extent to which they may be absent from companies' balance sheets;

b) As has emerged in relevant literature and in interviews on the topic with the ONS and an academic, because national data is calculated based on surveys of private companies:

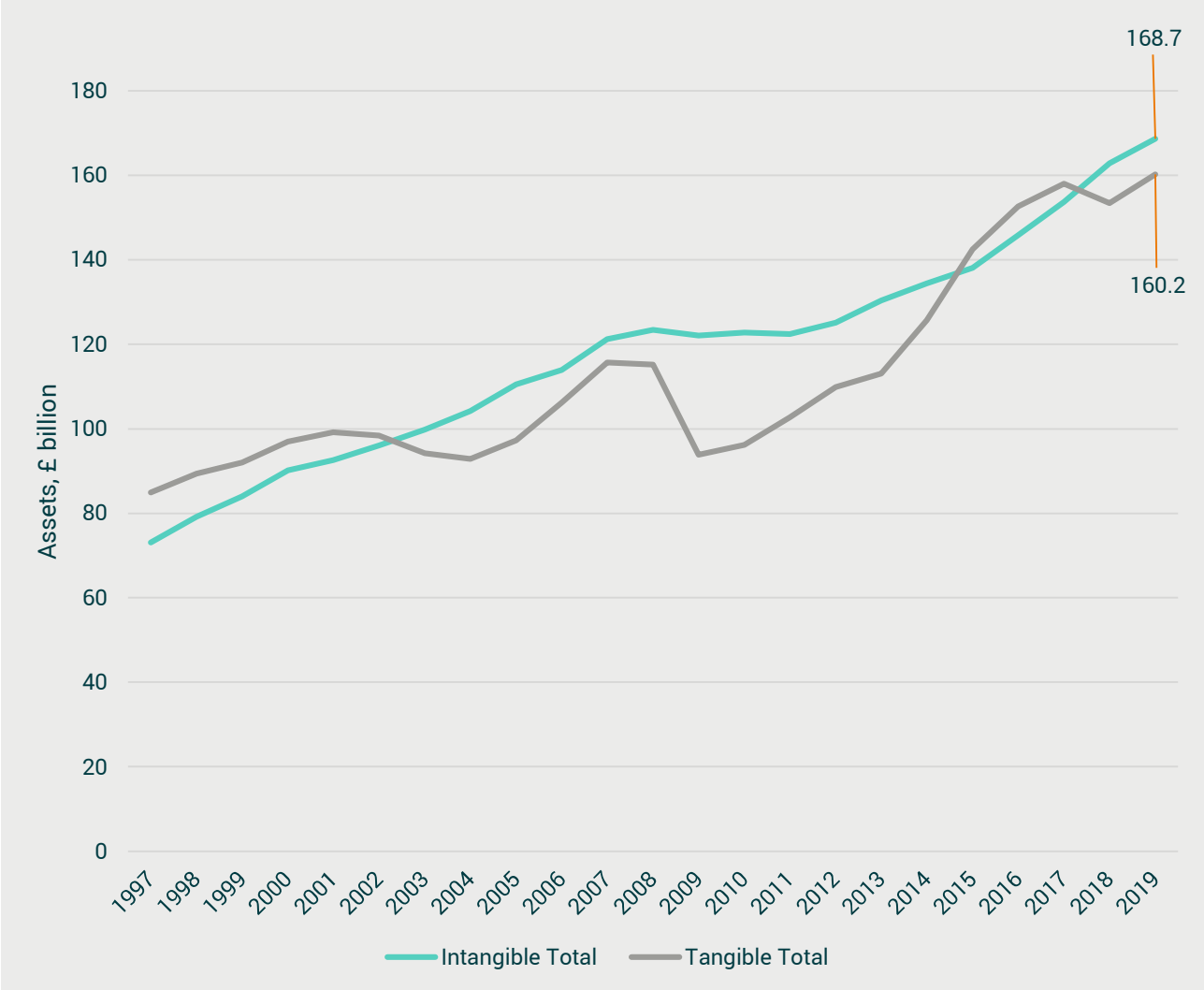
i. the challenges faced by national statisticians in measuring intangible assets are in many instances similar to the ones faced by individual companies (see above); and

ii. wider recognition of intangible assets at a company level may lead to more comprehensive and consistent statistics at the national level.

2.51 Consequently, we believe there are lessons to be learned by looking at the prevalence of intangible assets as per national statistics, as well as by comparing and contrasting how national and company accounts are prepared.

2.52 Figure 1 below displays the trend in tangible and intangible investment for the 1997-2019 period according to ONS experimental statistics.

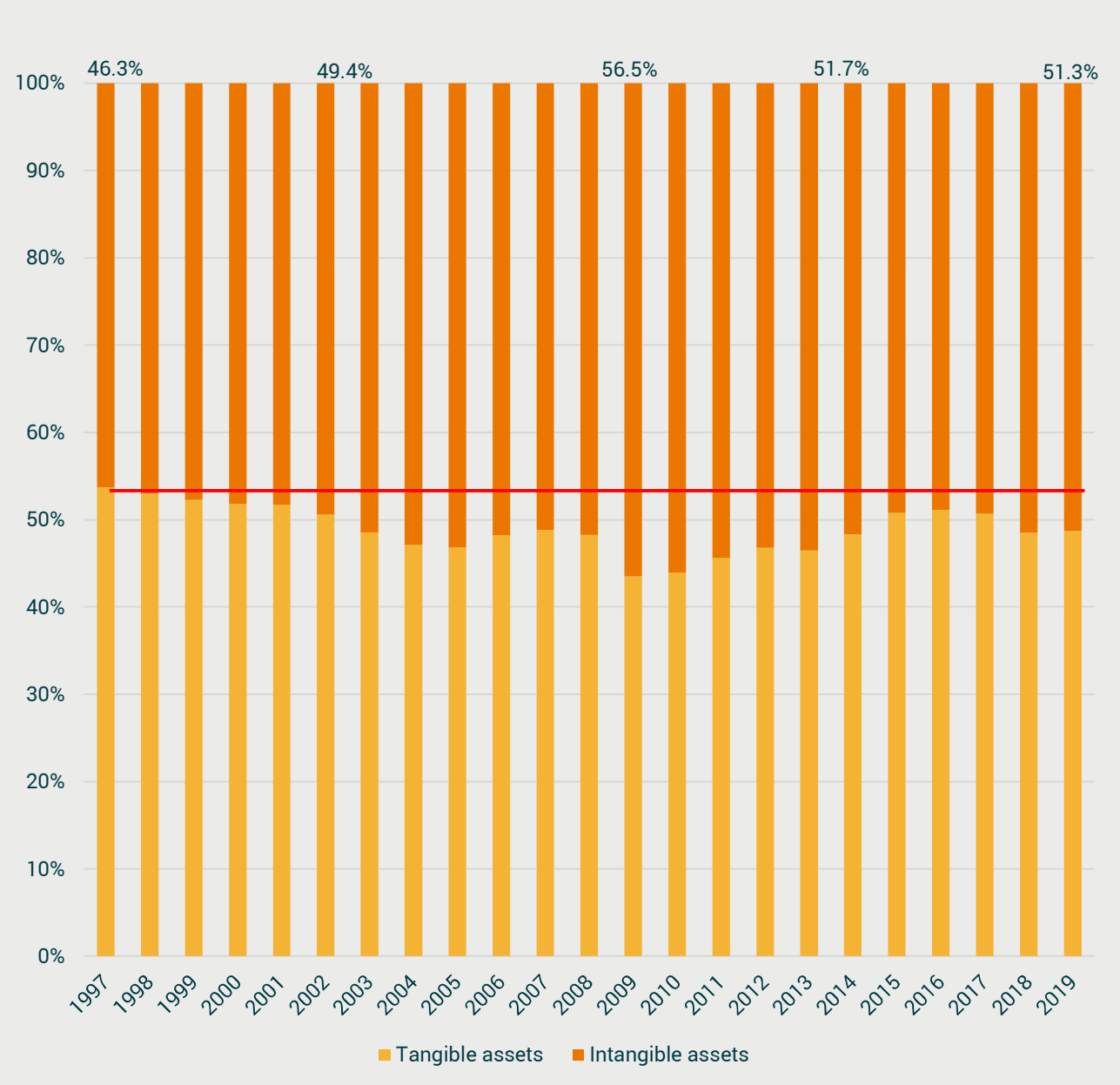
Figure 1: Trend in tangible and intangible assets investment 1997-2019



Source: ONS.

2.53 As noted in Martin (2019) and other publications, annual investment in intangible assets is estimated to be roughly equal to investment in tangible assets,[70] a largely "unaccounted half" (see Figure 2) amounting to roughly 7.5% of UK GDP. [71] As of 2019, intangibles investment was nearly £170 billion. Figure 3 provides a breakdown of 2019 investment among different assets (both accounted and unaccounted for).

Figure 2: Intangible assets investment, share of total national investment

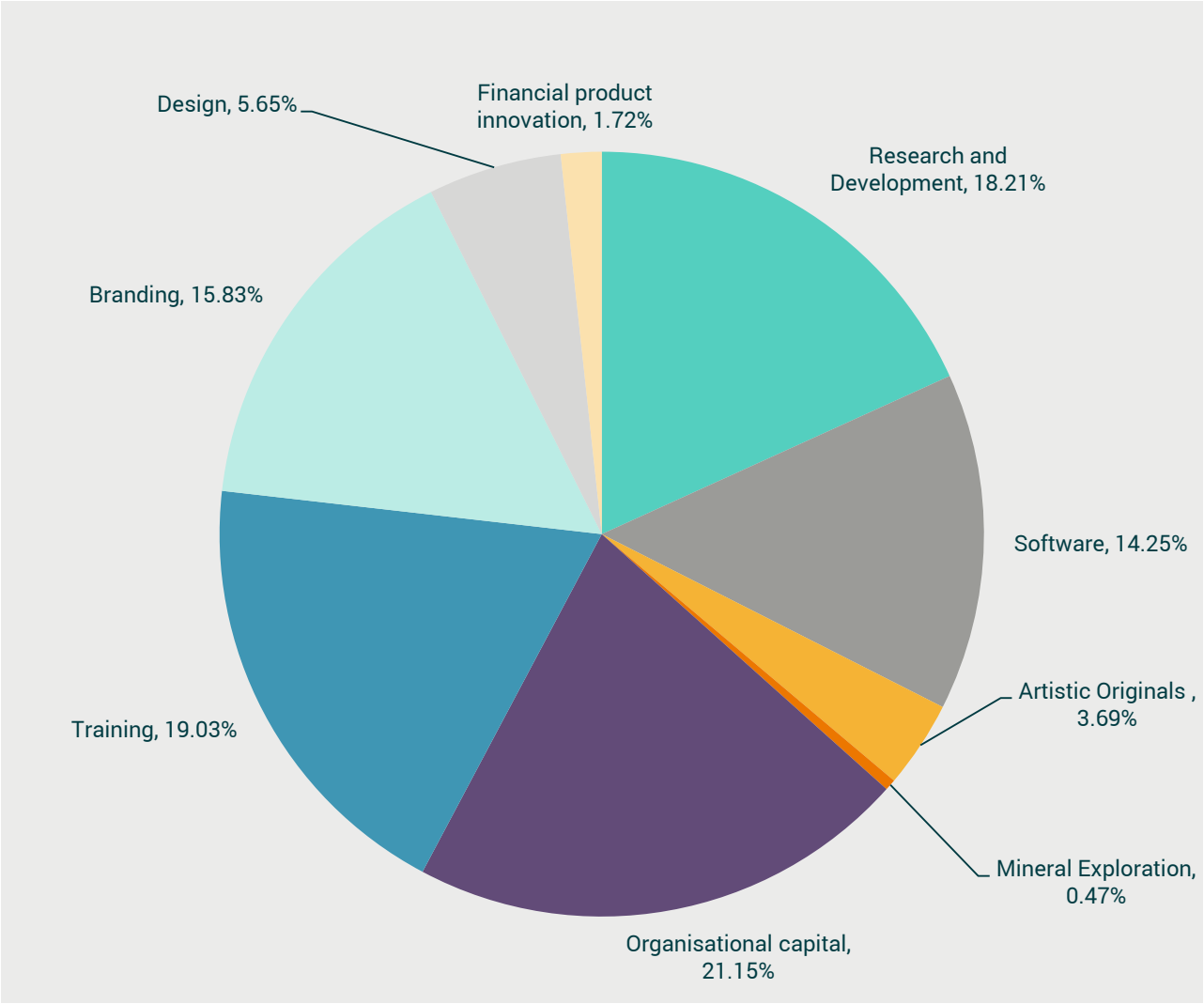


Note: the red line marks 50%. Source: ONS.

70 See also Roth, Sen and Rammer (2021) who find a similar result using German firm-level data; Peters and Taylor (2017) who estimate the stock of intangible capital to be nearly half of total capital for US firms.

71 As of 2019, roughly £60 billion were accounted for, of which, half could be attributed to R&D, suggesting that total accounted investment (tangible and intangible) was in the ballpark of £230 billion, which is consistent with national account estimates.

Figure 3: 2019 intangible assets investment, by asset class



Source: UKEB calculations on ONS, Investment in intangible assets in the UK by industry: 2019. Assets accounted for in national statistics: research and development, software, artistic originals, mineral exploration.

Prevalence at a company level

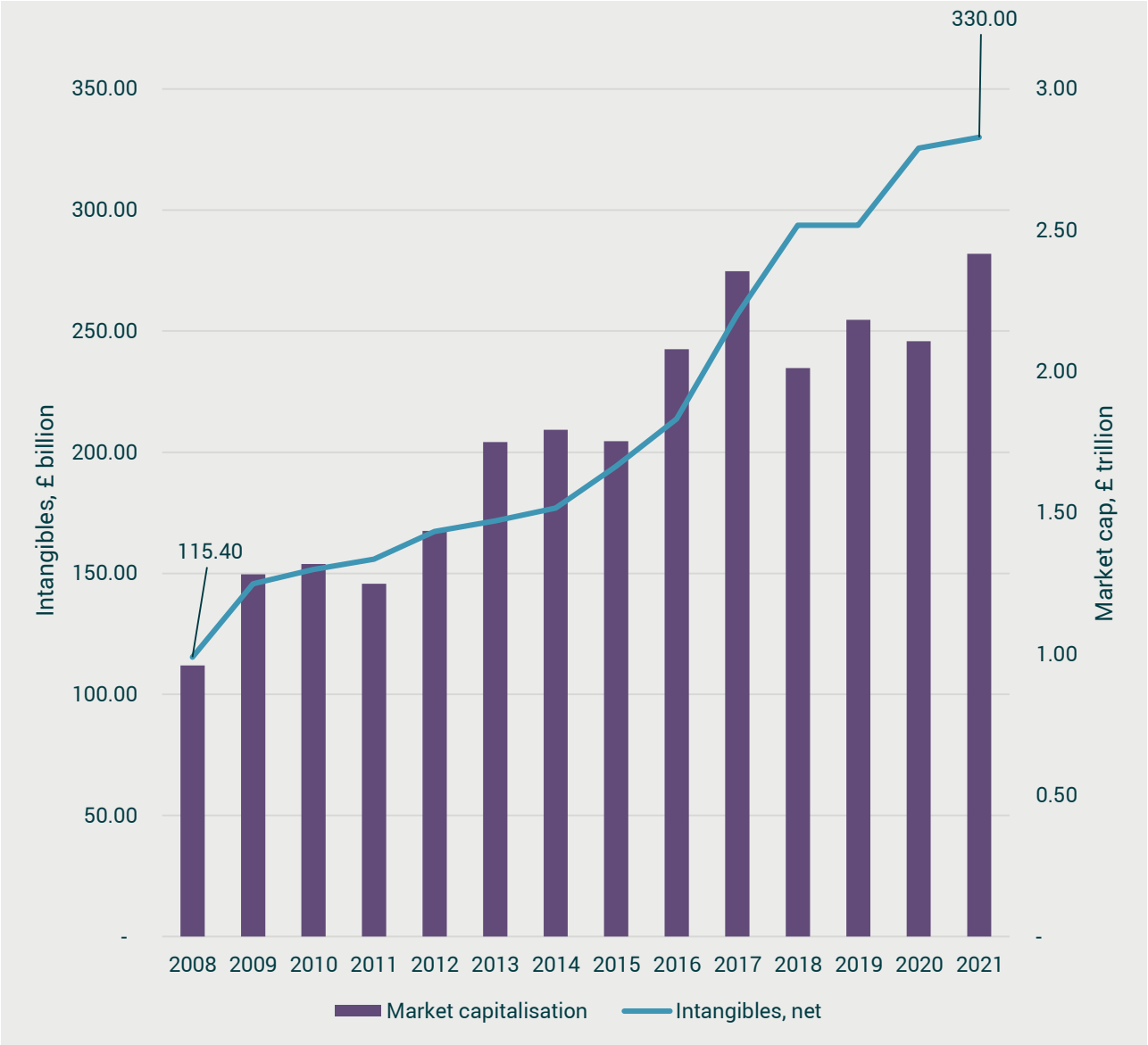
FTSE 350 companies

2.54 This section looks at the prevalence of intangible assets among FTSE 350 companies, looking at their trend and growth over the 2008-2021 period, as well as sectoral differences. The section concludes with estimations on selected companies of how capitalised intangibles may look on companies' balance sheets were companies allowed to recognise certain intangible assets (such as the research component of research and development, brands, training).

2.55 The carrying amount of intangible assets among FTSE 350 companies was calculated using Reuters-Eikon data.

2.56 Figure 4 shows the trend in the carrying amount of intangible assets against market capitalisation for the period 2008-2021.[72] Several academic studies[73] suggest that intangible assets are an important driver of stock prices/market value.

Figure 4: trend in intangible assets, FTSE 350 companies



Source: UKEB calculations on Reuters-Eikon data.

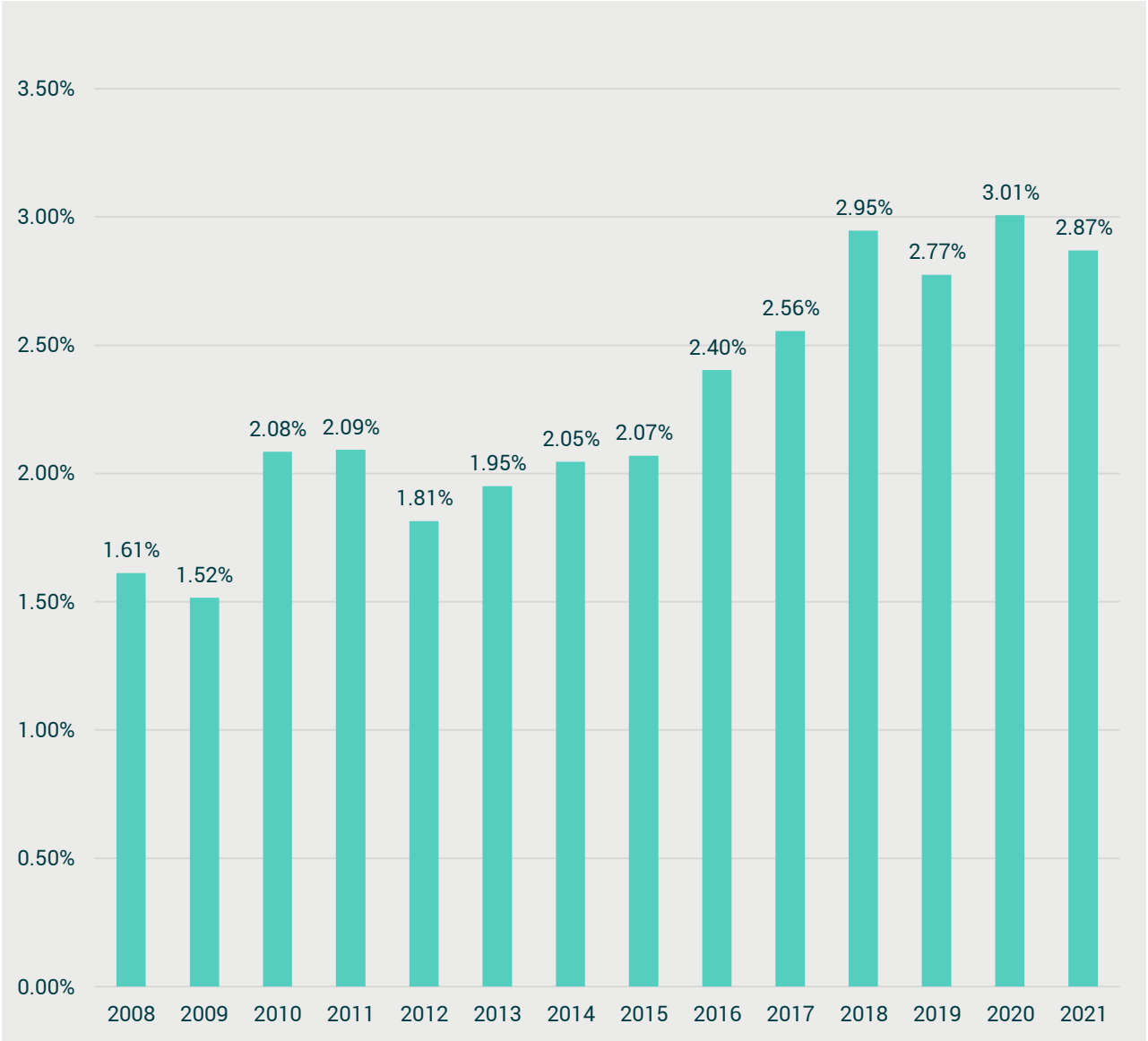
2.57 As evident from the graph, over the period 2008-2021,[74] the carrying amount of intangible assets recognised by FTSE 350 companies has significantly increased. Between 2008 and 2021 recognised intangible assets nearly tripled in value, from £115 to £330 billion (a 185% increase over the period). By comparison, over the same period total assets increased by 60.6% (from £7.1 to £11.5 trillion), property, plant and equipment increased by 76.3% (from £500 to £879 billion), and market

72 This period was chosen as pre-2008 data was less reliable/available.
73 Lev, 2001; Hulton and Rao, 2008.
74 We have chosen this time span due to data availability/reliability.

capitalisation increased by 88.5% from 2009[75] (from £1.3 to £2.4 trillion). Recognised intangible assets, therefore, grew at a faster pace than assets overall, physical assets or market capitalisation.

2.58 Intangible assets increased as a share of total assets over this period, as shown in Figure 5.

Figure 5: intangible assets as a share of total assets, FTSE 350 companies

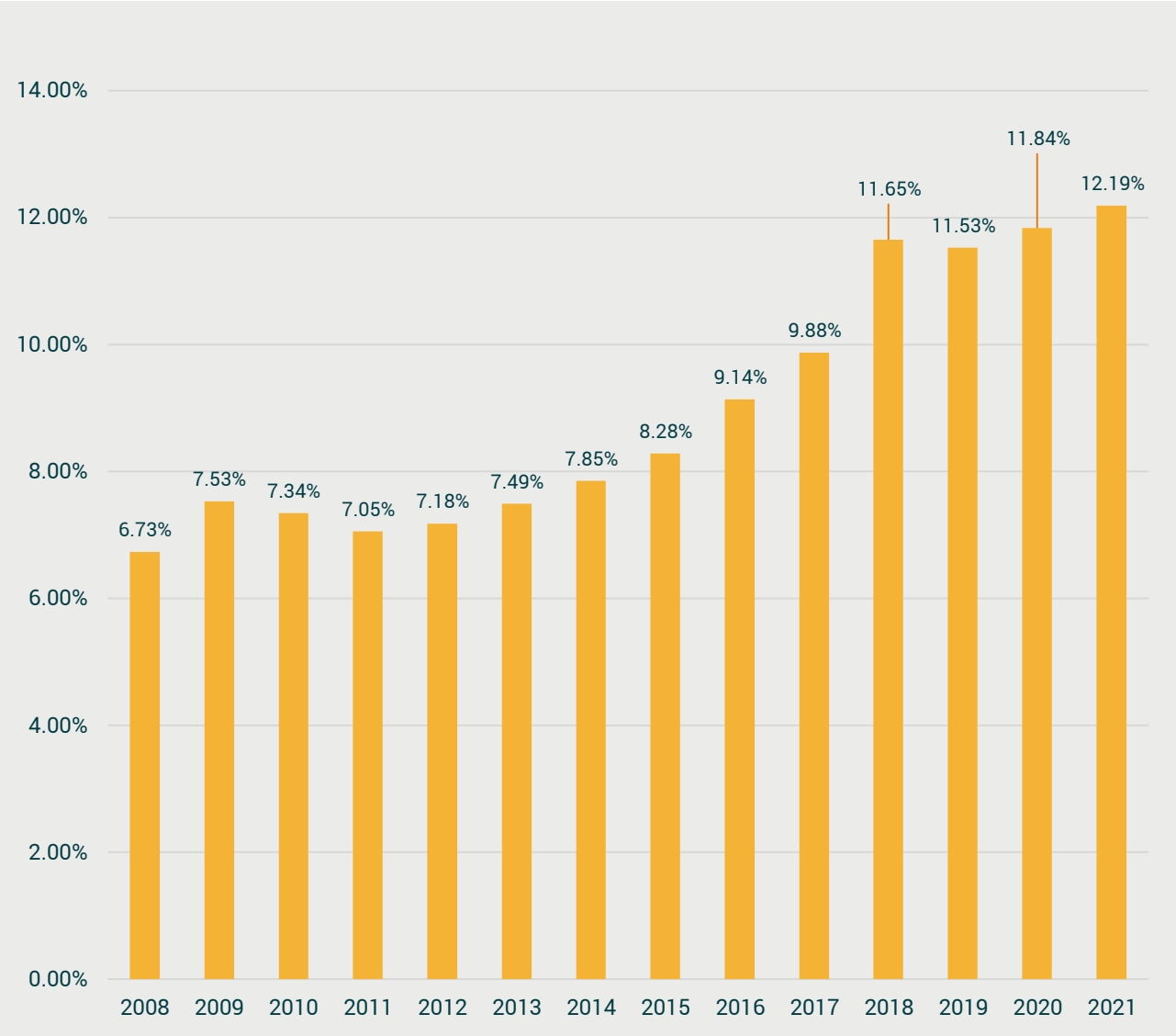


Source: UKEB calculations on Reuters-Eikon data.

2.59 The rise in intangible assets is even more evident when excluding the financial sector (banks, insurance companies and financial services firms). Excluding the financial sector, between 2008 and 2021 intangible assets as a share of total assets nearly doubled, from 6.73% to 12.2% (see Figure 6).

75 We compared 2021 year-end market valuations with 2009 as in 2008 they were negatively affected by the financial crisis.

Figure 6: intangible assets over total assets, FTSE 350 companies (excluding financial sector)



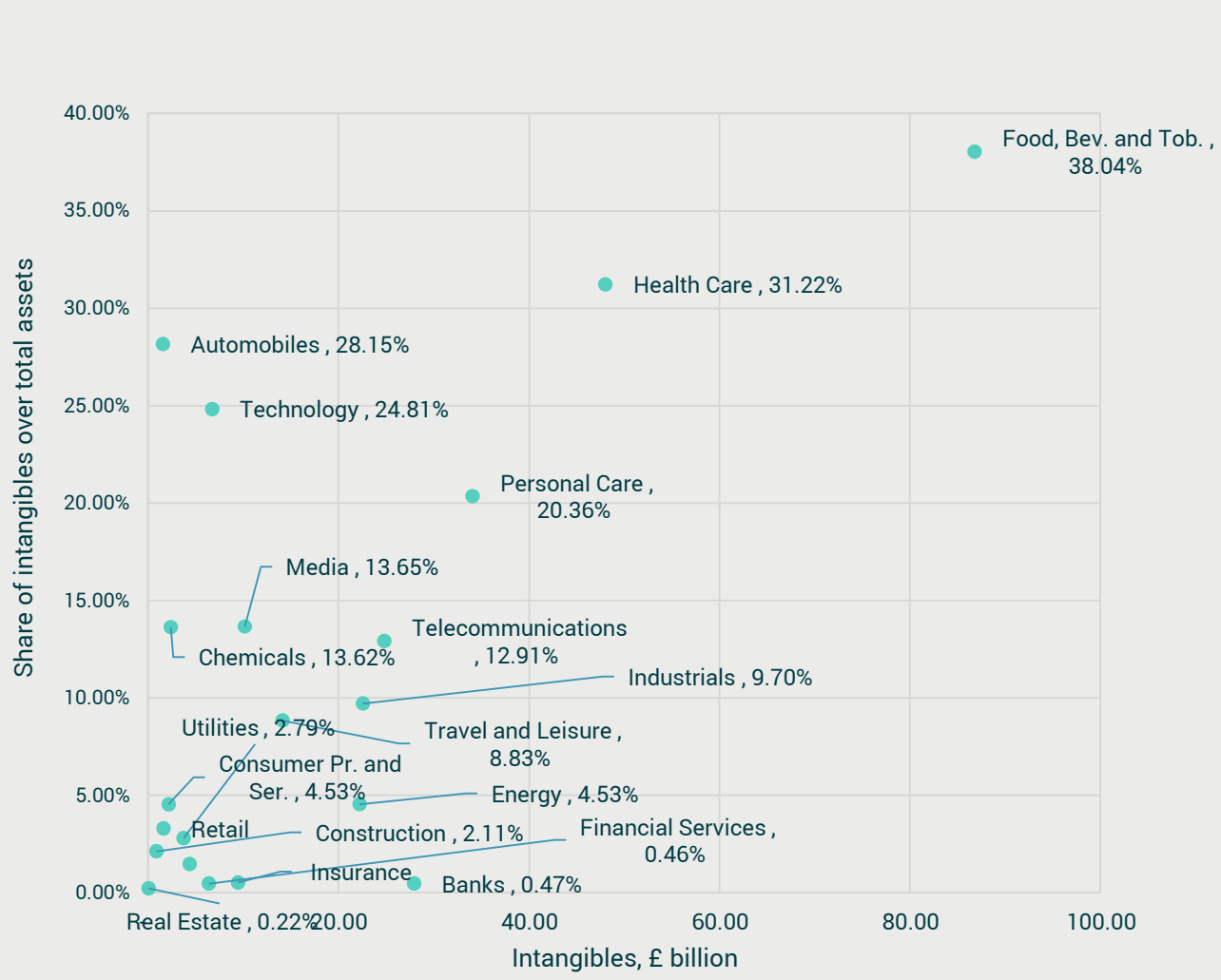
Source: UKEB calculations on Reuters-Eikon data.

There are significant sector differences in the prevalence of intangible assets (see Figure 7). The graph plots the amount of intangibles on the balance sheet in £ billions against their share of total assets. The sector characterised by the highest amount of intangibles, both in absolute and relative terms, is Food, Beverages and Tobacco; this is largely attributable to the British American Tobacco's 2017 acquisition of Reynolds,[76] which was associated with the recognition of nearly £75 billion of trademarks. [77] The second largest sector (both in absolute and relative terms) is health care, which includes pharmaceutical companies like AstraZeneca and GSK, characterised by significant levels of R&D capitalisation.

76 See https://www.bat.com/reynolds

77 See BAT 2017 financial statements, pages 132 and following

Figure 7: Intangible assets by industry



Source: Reuters-Eikon. Industry classification: ICB (Super-sector).

2.60 These figures show that for some sectors intangible assets are an increasingly important component of companies' balance sheets. However, and as discussed in Section 1, under the current accounting framework companies can capitalise only a limited number of internally generated intangible assets. By contrast, capitalising intangible assets arising from a business combination is mandated at their acquisition-date fair value.

2.61 In addition, IAS 38's relatively restrictive recognition criteria have not typically allowed companies to recognise intangibles belonging to potential asset classes that have emerged in recent years (such as "Big data" or AI algorithms: see paragraph 2.25). This is in addition to restrictions on recognising training, advertising or human capital as an asset. As a consequence, the types of intangibles as well as their value on companies' balance sheets should be interpreted as a "lower boundary", both in absolute terms and as a share of the total.

2.62 Data from FTSE 350 annual reports over the 2012-2021 period was also examined for information on expenditure on intangibles that is not capitalised but expensed when incurred. As discussed later in paragraphs 3.49 – 3.59, a problem flagged by UK stakeholders about IAS 38 is the fact that the standard does not require detailed disclosures about expenses that may relate to intangibles. The analysis revealed that a majority of FTSE 350 companies do not disclose granular information about intangible expenses, such as R&D, advertising, software development and training costs.[78] However, using Reuters-Eikon data and individual financial statements, the following examples of such expenditure were found:

a) Unilever, a customer goods company, in 2021 expensed over €6 billion in advertising costs;[79]

b) Diageo plc, a food and beverage company, over the 2012-2022 period, expensed roughly £2 billion per year on advertising;

c) 33 companies on the FTSE 350 expensed training costs, for a total amount of £406 million in 2021; and

d) FTSE 350 companies in 2021 expensed over £22 billion in R&D.

2.63 It seems likely that at least part of these expenses is investment in intangible capital that companies expect to generate future economic benefits but are not allowed to capitalise under current IFRS Accounting Standards (including the research component of R&D).

2.64 The perpetual inventory method (PIM) is a method widely used by statistics institutes like the ONS and the Bureau of Economic Analysis (BEA), in the United States, to estimate capitalised investment. Using a time series of expenditures, the perpetual inventory method capitalises expenses by adding new investment to a stock of capital that is depreciated every period. Different techniques allow the calculation of initial values. Depreciation rates in the literature depend on the intangible asset considered.[80]

78 The analysis was conducted using Reuters Eikon, Fame, Companies Watch and companies' financial statements.

79 See Unilever 2021 financial statement, page 123.

80 For branding, depreciation rates are typically assumed to be 45%-50% depending on the contribution. For R&D they are generally assumed to be 15%. For a generic intangible asset, they are assumed to be 20%-30% depending on the contribution. See Villalonga (2004), for example, where R&D is depreciated at a 15% annual rate, and advertising at 45%; Bontempi and Mairesse (2014), where the total stock of intangible capital is depreciated at a 30% rate; Peters and Taylor (2017), who capitalise 30% of SG&A and attribute this to intangible assets; Mairesse and Mulkay (2007), who apply a 15% rate to R&D; Bongaerts, Kang and Van Dijk (2022) who capitalise 20% of SG&A and attribute this to intangible assets. For some intangible asset types, depreciation rates are not separated from success rates, because of the difficulty in identifying a success outcome (how to unequivocally measure whether, say, a marketing campaign of a training program, were successful?). Because of its nature, the success of R&D can be more easily calculated as successful R&D programs give raise to enforceable rights such as licences.

2.65 Using the PIM for a selected number of companies to capitalise expenses on intangible items,[81] showed the following:

a) Capitalised R&D costs for two major pharmaceutical companies, AstraZeneca (AZ) and GlaxoSmithKline (GSK), are estimated to be as below[82]:

i. From 2011-2020, AstraZeneca spent, on average, over $5 billion per year on research (the uncapitalised portion of R&D). Using 2001-2021 data, assuming a 10% success rate,[83] if AZ were to capitalise these expenses, they would contribute over $37 billion additional intangible assets in 2021 (this figure takes into account estimated depreciation and the success rate);[84]

ii. From 2011-2021, GSK spent, on average, over £3.8 billion per year on research (the uncapitalised portion of R&D). Using 2001-2021 data, assuming a 10% success rate, if GSK were to capitalise these expenses, they would amount to nearly £26 billion in 2021.[85]

b) Over the 2011-2021 period, Vodafone spent over €49 million on average per year on training. Using 2001-2021, if these expenses had been capitalised (including an estimated amortisation rate), they would amount to roughly €228 million in 2021;[86]

c) Over the 2012-2021 period, Unilever spent over €7.3 billion on average per year on advertising. Using 2012-2021 data, if these expenses had been capitalised (including an estimated amortisation rate), they would amount to almost €16 billion in 2021.[87]

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81 We should also note that intangible assets recognised on companies' balance sheets are likely to be subject to a measurement gap, in that they are not necessarily measured at their balance sheet date economic value. Unfortunately, estimates of any existing measurement gaps would be more difficult to provide.

82 For simplicity, in the analyses reported in 2.64 a), b) and c) only the recognition gap is considered. Amounts are reported in the reporting currency of the company.

83 Following Yamaguchi, Kaneko and Marukawa, 2021; Takebe, Imai and Ono, 2018.

84 AstraZeneca's reported intangible assets excluding goodwill were $42.4 billion in 2021, which include $41.3 billion of product, marketing and distribution rights. The amortisation rate assumed in the calculation is 15%, following the literature; the calculation does not take into account potential impairment losses.

85 The reported intangible assets excluding goodwill for GSK were £30.1 billion in 2021, which include £10.7 billion of licences, patents and amortised brands. The amortisation rate assumed in the calculation is 15%, following the literature; the calculation does not take into account any potential impairment losses.

86 The reported intangible assets excluding goodwill for Vodafone Group PLC were €21.8 billion in 2021, none of which included capitalised training costs. The amortisation rate assumed in the calculation is 15%, consistent with the academic literature; the calculation does not take into account any potential impairment losses or non-success rates.

87 The reported intangible assets excluding goodwill of Unilever PLC were €18.3 billion in 2021 including €17.4 billon of indefinite-life intangible assets much of which are brands. The amortisation rate assumed in the calculation is 45%, following the literature; the calculation does not take into account any potential impairment losses.

2.66 Additional analysis of Reuters-Eikon data and individual financial statements revealed that some companies recognise customer relationships purchased in business combinations. For example, the London Stock Exchange Group has recognised £8.7 billion in customer relationships following their acquisition of Refinitiv and Tradeweb in 2021.

2.67 These figures and analyses suggest that some intangibles may be under-recognised in companies' accounts, and that more granular information about intangible expenses could help users develop better estimates of the size of intangible capital held by companies.

Unlisted companies

2.68 We also estimated the prevalence of intangible assets in a sample of 28 large unlisted companies applying IFRS.[88] An analysis of their financial statements revealed that as at the 2020 year-end these companies had £4.7 billion in intangible assets (excluding goodwill). Total assets for these companies were almost £300 billion (£126 billion excluding two life insurance companies that did not hold any intangible assets), suggesting that the share of intangible over total assets was 1.6% (3.7% excluding financial companies).

Tracking to national level information

2.69 A comparison between FTSE 350 company and macroeconomic data suggests that some intangible assets are likely to be unaccounted for in individual company accounts.

2.70 Using the perpetual inventory method discussed in paragraph 2.64, we capitalised intangible investment at a national level (see ONS figures reported in paragraphs 2.52). Assuming a 22% depreciation rate (the rate used for a "generic" intangible in the literature, see Villalonga, 2004) we estimate that, at the 2019 year-end, intangible assets at the UK national level were just above £670 billion.

2.71 As reported in Figure 4 as of 2019 year-end intangible assets on FTSE 350 companies' balance sheets amounted to roughly £293 billion. This represents 43% of the estimated stock of intangible capital based on ONS experimental data.

88 The sample is: Arnold Clark Automobiles, Arup, Bestway, CDS Superstores, Domestic and general, Edrington Group, Euro Garages Ltd, Heathrow Airport Holdings Limited, INEOS Group Holdings, ISG, John Lewis PLC, KCA Deutag Alpha Limited, Matalan, Motor fuel group, Morson group, Nando's Group Holdings, Neptune Energy Group LTD, New look retail holdings Ltd, Pertemps Network Group Limited, Pension Insurance Corporation PLC, Reed, Rothesay Life Plc, Stonegate pub company, John swire & sons limited, Kemble Water Finance Ltd, The very group, THG, Vue International Bidco PLC.

Economic Context in Summary

2.72 This section looks at both the economics literature and at the prevalence of intangible assets in the UK economy (and in particular among FTSE 350 companies). The rationale for providing economic context is twofold:

a) At a high level, the accounting should reflect the underlying economics of a phenomenon or a transaction. Therefore, any reckoning of what is wrong with current accounting practices, and how they should be changed, should take the economic context into account;

b) In particular, economic reasoning instructed the drafting of the questions asked during interviews held with UK stakeholders and, therefore, directly influenced the empirical strategy pursued in the report.

2.73 The key lessons that can be extracted from the review of the economic literature are:

a) Intangibles are an important determinant of gross domestic product but have largely been excluded from national accounts. Enhanced recognition at a company level may indirectly make national accounts more informative;

b) Intangibles tend to be positively related to a company's indicators of financial and economic performance, and productivity. Arguably, more widespread recognition of intangibles would help users assess companies' performance; and

c) As intangibles affect a company's performance, a company's investment in intangibles is also reflected in stock prices. More and better information about intangibles on financial statements could be expected to lead to more informative stock prices.

2.74 Consistently, the analysis performed on the prevalence of intangibles showed that:

a) Over the 2008-2021 period intangibles have become much more prevalent, both at a national level and among FTSE 350 companies. At a national level, annual investment in intangibles has surpassed investment in tangible assets. Among FTSE 350 companies, intangible assets have nearly tripled in value in absolute terms, from £115 to £330 billion (a 185% increase over the period), and nearly doubled as a share of total assets;

b) However, because of IAS 38 recognition criteria, intangible assets recognised on balance sheets are to be considered as a lower boundary, as they are largely the intangible assets recognised in business combinations as per IFRS 3. Estimations based on the capitalisation of granular intangible expenses for selected companies show that, were companies allowed to recognise more intangible asset types, their amounts would be significant; and

c) Similar calculations applied to national investment data from the ONS show that the recognition gap could be in the range of hundreds of billions, though we caveat that these estimations incorporate both significant assumptions and uncertainty.

3. Stakeholders' concerns with IAS 38

3.1 Sections 3 and 4 of this report summarise the key themes that emerged from over 30 in-person interviews with stakeholders, and roundtable discussions held with the UKEB Preparers Advisory Group (PAG)[89] and the Accounting Firms and Institutes Advisory Group (AFIAG).[90,91] Appendix B discusses the methodology used to conduct this research, including a breakdown of the respondents by category of stakeholder. Where appropriate, stakeholders' views are compared and contrasted with the relevant literature in accounting and economics.

3.2 In this section we summarise the concerns stakeholders raised with the current accounting for intangible items. We also consider the reasons why current accounting may be difficult to change or perceived as favourable by some stakeholders. These considerations lay a foundation for the following section that considers opportunities for improvement in the accounting for intangible items.

"What's wrong" with IAS 38: a literature-informed summary of stakeholders' views

3.3 Stakeholders' concerns with IAS 38 were grounded in a perception that it was an old standard. When explored with interviewees it appears that the heart of the issue is the growing disconnect between IAS 38 and the *Conceptual Framework (2018)*, which has been through two revisions since IAS 38 was developed.

3.4 Beyond these concerns, specific issues identified by stakeholders include the lack of relevant information about key intangibles in the financial statements, stemming from their non-recognition, inconsistent accounting and limited disclosure.

89 More information about the PAG can be found here.

90 More information about the AFIAG can be found here.

91 While several themes overall consistent with the interview findings emerged from both discussions, it is important to note that members of the two groups raised different and sometimes contrasting views on what the issues with the standard are and did not agree on specific solutions to existing problems.

IAS 38 *Intangibles* is an "old standard"

"I do think IAS 38 has problems. The main problem is that it is an old Standard, based on an old conception of R&D. It doesn't help to deal with many intangibles that exist today". (Academic)

"IAS 38 is an old standard, it is too general". (Preparer)

3.5 IAS 38 was issued by the International Accounting Standards Committee in September 1998. The standard replaced IAS 9 *Research and Development Costs*, issued in 1993, which itself replaced an earlier version of IAS 9 *Accounting for Research and Development Activities* that was issued in July 1978. The current standard retains large sections originally written in the 1970s.

3.6 When asked what is wrong with the accounting for intangibles, a common refrain from stakeholders was, "IAS 38 is an old standard" (Preparer). On its own the age of a standard is not a valid criticism. However, this view seems underpinned by two specific concerns that IAS 38 is outdated when considered in light of:

a) advances in technology and the economic changes experienced since the standard was developed; and

b) developments in the *Conceptual Framework (2018)* underpinning the IFRS Accounting Standards.

Advances in technology

3.7 The first concern is that IAS 38 has not kept pace with advances in technology. This is closely linked to the increasing importance of intangible capital in the economy, as discussed in Section 2 of this report, and of newly emerged intangible asset classes.[92] On this issue one interviewee commented, "It is not a reflection of economic reality and not relevant to the value of the business. The economy will become more intangible over time". (Auditor)

3.8 IAS 38 references specific intangible items that were relevant at the time the standard and subsequent amendments were published. Because IAS 38 is a catch-all standard, newly developed intangible assets are within its scope. However, stakeholders were of the view that the recognition and measurement specified in IAS 38 fails to capture the economics of many intangibles, especially

92 Since the publication of IAS 38 in 1998, nearly 25 years ago, there have been significant developments in the world. To put this in context consider just a few of the technologies become mainstream in the last two decades:
a) Smartphones (the first Apple iPhone was released in 2007)
b) The rise of Artificial Intelligence, increasing reliance on algorithms and Big Data
c) Easily accessible video calling (Skype launched in 2003)
d) Video streaming (YouTube launched on 2005)
e) Social media (Facebook launched in 2004)
f) 3D printing
g) Internet usage has grown from virtually 0 to over 50% of the world population
h) The mainstreaming of hybrid and electric transportation.
Many of these changes relate directly to intangible items.

internally generated ones. This remains true for new intangibles, such as artificial intelligence, algorithms and big data. This often leads companies to expensing all such items for financial reporting purposes.

Advances in the IASB's Conceptual Framework

3.9 The second concern refers to changes in the concepts that underpin the development of IFRS Accounting Standards, and a mismatch between how assets, and the accounting for assets, are conceptualised in the *Conceptual Framework* (2018) and the requirements specified in IAS 38. As one stakeholder noted, "The [current] Conceptual Framework definition of an asset does seem to capture a lot more intangibles than are generally recognised[93] under IAS 38". [94] (Standard Setter)

3.10 IAS 38 was developed in alignment with the *Framework for the Preparation and Presentation of Financial Statements* published in 1989 (the *Conceptual Framework* (1989). The definitions and recognition criteria in IAS 38, particularly the concepts of control and probability, are embedded from that framework. However, the revisions in 2018 to the *Conceptual Framework* (1989) are particularly relevant to the concerns heard from stakeholders, as they were partly driven by feedback received during the second agenda consultation about the application of the conceptual framework to intangible items (see footnote 26).

3.11 The Conceptual *Framework* (1989) defined an asset as "A resource controlled by the entity as a result of past events and from which future economic benefits are **expected to flow** to the entity". This definition is repeated in IAS 38, paragraph 8. In 2018 the definition of an asset was changed in the *Conceptual Framework* (2018) to "A present economic resource controlled by the entity as a result of past events. An economic resource is **a right** that has the **potential** to produce economic benefits" (emphasis added).

93 In accounting items must meet both the definitional criteria and the recognition criteria to be captured in the financial statements, but both concepts are integrally linked. This is explored in more detail in later paragraphs.

94 The Conceptual Framework for Financial Reporting is a fundamental element of International Accounting Standards. While not a Standard itself: "The Conceptual Framework sets out the fundamental concepts for financial reporting that guide the Board in developing IFRS Standards. It helps to ensure that the Standards are conceptually consistent and that similar transactions are treated the same way, so as to provide useful information for investors, lenders and other creditors. The Conceptual Framework also assists companies in developing accounting policies when no IFRS Standard applies to a particular transaction, and more broadly, helps stakeholders to understand and interpret the Standards." (IFRS introduction to the Conceptual Framework for Financial Reporting)

3.12 Two changes to the language used in the *Conceptual Framework* (2018) to define an asset are of particular relevance for intangibles:

a) In the *Conceptual Framework* (2018), while assets are based on economic resources, key to this is that they manifest as rights[95] . Of course, rights are themselves intangible, emphasising that intangibility is effectively at the core of all assets;

b) Replacing 'economic benefits expected to flow' with 'potential to produce economic benefits', which emphasises that the economic benefit does not need to be certain, or even likely, in order to meet the definition of an asset.

3.13 This theme was reflected in stakeholder interviews, particularly by those who suggested that the distinction between tangible and intangible assets may no longer be as relevant as in the past. As one former standard setter noted "all assets are now "rights" so all assets are really intangible".

3.14 The change referred to in paragraph 3.12 b) was consistent with the view expressed by an academic who noted: "Intangibles are value drivers of firms. In fact, often the company may be making losses from an accounting perspective. But value is being created in things like employees, corporate culture, resources the company devotes into delivering future growth such as spending on R&D, software, brand names, even capex (more broadly defined). All these have the potential to deliver value in the long run".

3.15 The *Conceptual Framework* (2018) also includes amendments to the concept of control of an asset, another important element of the definition of an asset. Consequently, the IAS 38 definition of control is now inconsistent with the new definition. IAS 38 states, "An entity controls an asset if the entity has the power to obtain the future economic benefits flowing from the underlying resource and to restrict the access of others to those benefits" (IAS 38, paragraph 13). While this definition is similar to that found in the *Conceptual Framework* (2018) definition (paragraph 4.20), IAS 38 goes on to emphasise the need for legal rights to protect the intangible asset (see IAS 38 paras 14 and 15). This focus on legal rights is now out of step with the *Conceptual Framework* (2018), which notes, "Control can also arise if an entity has other means of ensuring that it, and no other party, has the present ability to direct the use of the economic resource and obtain the benefits that may flow from it. For example, an entity could control a right to use know-how that is not in the public domain if the entity has access to the know-how and the present ability to keep the know-how secret, even if that know-how is not protected by a registered patent" (paragraph 4.22).

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95 "Prior to the publication of the 2018 *Conceptual Framework*, the definition of an asset included the term 'resource'. The 2018 *Conceptual Framework* uses the term 'economic resource' and defines an economic resource and, hence, an asset as a right. To illustrate the effect of this change in emphasis, the 2018 *Conceptual Framework* states that, for a physical object, such as an item of property, plant and equipment**, the economic resource is not the physical object but a set of rights over that object**." (*Conceptual Framework (2018)*, BC4.28, emphasis added)

3.16 Another significant element of IAS 38 that is no longer consistent with the *Conceptual Framework* (2018) is the requirement that, "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" (paragraph 21).[96] This was based on the paragraph 4.38 of the *Conceptual Framework* (1989) which was further expanded in paragraph 4.45:

"An asset is not recognised in the balance sheet when expenditure has been incurred for which it is considered improbable that economic benefits will flow to the entity beyond the current accounting period. Instead, such a transaction results in the recognition of an expense in the income statement. The degree of certainty that economic benefits will flow to the entity beyond the current accounting period is insufficient to warrant the recognition of an asset".

3.17 The *Conceptual Framework* (2018) noted that an item meeting the definition of an asset should be recognised in the financial statements (paragraph 5.6) and goes on to state that "Not recognising an item that meets the definition of one of the elements makes the statement of financial position and the statement(s) of financial performance less complete and can exclude useful information from financial statements" (paragraph 5.7).

3.18 The exception to this is if recognition of an asset would provide users of financial statements with information that is not relevant or does not provide a faithful representation of the asset, which may be the case if the probability of producing economic benefits is low.

3.19 This fact that **probable** future economic benefits are no longer necessary to recognise an asset are explicitly addressed in the *Conceptual Framework* (2018).

3.20 "A right can meet the definition of an economic resource, and hence can be an asset, even if the probability that it will produce economic benefits is low" (paragraph 4.15). Stakeholders clearly value the *Conceptual Framework* and the principles that it brings to the development of accounting standards. The importance of alignment between accounting standards and the *Conceptual Framework* (2018) was a clear theme that emerged from the stakeholders' interviews.

> "I am nervous about having too many rules and trying to create bright lines. A principles-based approach is better. If you set a bright line people find ways to bend the rules. Principles usually lead to greater discipline in the accounting. I would prefer something that is more aligned with the conceptual framework. Is there really an asset here? Then we can think about the appropriate measurement". (Investor)

[96] The reference to "probable" is understood in accounting to mean "more likely than not" (IFRS 5, Appendix A).

Three specific problems

3.21 Beyond the *Conceptual Framework* (2018), interviewees' main concerns about IAS 38 coalesce around three clear issues with the current accounting:

a) Limited recognition of intangible items;

b) Inconsistent accounting, whether for:

i. different types of intangibles, e.g., research versus exploration;

ii. internally generated vs purchased intangibles; or

iii. intangibles versus other assets.

c) Disclosure, for both capitalised and expensed intangible items.

3.22 Generally, the stakeholders interviewed in this research did not identify the gap between carrying amount and market value of companies as a key concern. Certainly, no investors raised it as a specific shortcoming of the accounting for intangibles. This contrasts the view of some academics, particularly Baruch Lev who has authored a number of books and articles focused on this matter. At least one academic interviewed for this report held a different view: "I am not a fan of the theory that the gap between Book Value and Market Value is driven by intangibles. I do not believe perfect measuring of intangibles would lead to a perfect match between Book Value and Market Value"

Limited recognition

> "We need to get behind the initiative to change IAS 38… [for some companies] the most important assets are missing from the balance sheet". (Auditor)

3.23 Stakeholders interviewed expressed concerns that IAS 38 does not often lead to recognition of internally generated intangibles, an issue also widely commented on in the literature on the topic. For example, Barker et al. (2021, pg. 2): [97]

> "Intangibles are an increasing component of the assets of modern firms. They include knowledge assets acquired through research and development, human capital developed by investing in employees, the value in supply chains and product distribution systems, brands, software investments, and the organisation of the business. Few of these intangibles appear as assets on balance sheets, leading to increasing calls for reform".

97 This paper (which when reviewed was a working paper) has subsequently been published as Barker, R., Lennard, A., Penman, S., & Teixeira, A., (2021) Accounting for intangible assets: suggested solutions, Accounting and Business Research, 52:6, 601-630, DOI: 10.1080/00014788.2021.1938963, references will be rechecked against the final paper an updated

3.24 Almost all stakeholders commented that the prohibition on capitalising certain expenditures, that could otherwise be deemed as contributing to an intangible asset, fails to capture useful information about many intangible items.

3.25 This was expressed in a number of ways by different stakeholders, for example:

a) "The current accounting standard is not fit for purpose. There are lots of intangibles that should also be captured. There are 'real' intangibles that are ignored in the financial statements even before you think about 'brand' and 'reputation'." (Preparer)

b) "Genuine investment is being expensed". (Standard Setter)

c) "Requirements to expense marketing and workforce are problematic. If they meet the definition of an asset they should be capitalised". (Auditor)

d) "We aren't capturing good assets on the balance sheet". (Preparer)

e) "More research should be capitalised" (Investor)

3.26 It was not just those involved in the production of financial statements who raised this, users also noted the lack of recognition of many intangibles. One analyst commented: "Accounting is okay at dealing with intangibles that have strong rights associated with them. Where the accounting system fails is insights into how the entity is developing intangibles, e.g., the ability of the workforce or the building of brands. Insight into these internal intangibles would be useful. That information is lacking in accounting". (Analyst)

3.27 It should be noted though that the investors interviewed were generally more focused on the current limited disclosure than on limited recognition.

3.28 In addition to these concerns, a preparer noted that IAS 38's requirements that result in expensing much of the spending on internally generated intangibles fail to distinguish between "good spending" (i.e., money spent on profitable projects) and "bad spending" (i.e., money spent on non-profitable ones). They also linked this to IAS 36 *Impairment of Assets*, arguing that even for capitalised expenditure companies were slow to write off under-performing assets.

3.29 A preparer noted: "The intangibles and impairment standards are slightly broken; we need to come back to the users' needs. Bad news can be hidden, as you expense as you go. We would like to see a developed narrative on ongoing costs, and some of this captured as an asset".

3.30 There is also concern about the accounting under IAS 38 for more of the recent innovations such as algorithms, cryptocurrency or artificial intelligence, all of which may already, or could in the future, represent significant intangible value.

> "There has been a rise in intangibles, resilience, networks, brand value etc, and the accounting is bad at capturing this, along with the creative process. This problem will grow as the economy continues to move towards intangibles. If you want accounting to remain relevant there should be a solution". (Analyst)

3.31 Given the pace of innovation in the intangible space it is hard to know what specific items will be relevant in the future. However, when explicitly asked, interviewees agreed that “new intangibles” such as algorithms, big data and tech capital should be considered for greater recognition, as it is evident that they are a significant contributor to future economic benefits for some companies.

3.32 Stakeholders, particularly academics, identified a range of intangibles they thought IAS 38 currently failed to appropriately consider for recognition:

a) “Trademarks and brands: IP business models are different. If you have a strong registered trademark portfolio. They are accessible and protectable.”. (Academic)

b) “Virtually all our brands are missing from the balance sheet because they weren't acquired. And most of our value is now focused on looking forward to developing the next generation products which has to be expensed. But that is just the way the accounting is. We don’t see analysts seeing this as a problem, but obviously this creates inconsistency between organic growth and inorganic growth. Comparison of companies is more difficult”. (Preparer)

c) “There is clearly a need for capturing more intangible assets, things like carbon emissions rights”. (Academic)

d) “For high-tech companies cloud computing is a key asset that is not being captured”. (Academic)

3.33 Generally, investors focused on research as a key intangible that could be considered for capitalisation.

3.34 While some stakeholders identified “brand” as an example of an internally generated intangible that should be considered for capitalisation if it was consistent with the conceptual framework, investors were less certain. One investor felt that these types of intangibles were too “wishy-washy” and relied too much on “estimates” to provide useful information.

3.35 Box 2 provides further evidence from desk-based research on the relationship between expenditure on brands and potential economic benefits.

Box 2: The effect of marketing and brands on companies' performance

7. Brands are an important source of competitive advantage, as is often discussed in academic research.[98]However, internally generated brands are prohibited from recognition under IAS 38.

8. By offering differentiated products that satisfy the specific needs of carefully targeted audiences, marketing has allowed some companies and industries to increase their profitability (Narver and Slater, 1990), reduce competitive threats in their target segments (Hooley, Greenley, Fahy and Cadogan, 2001) and obtain fair prices on capital markets (Kumar and Shah, 2009).

9. The intangible asset best associated with marketing is the brand. A brand is a name, term, design, symbol, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from competitors (American Marketing Association, 1960) and the sum of any mental connections people have around these features (Brown 1992).

10. Existing research has found positive associations between brand and revenues as a company can use its brand to positively affect customer attitudes and purchasing behaviour (Morgan, Slotegraaf and Vorhies, 2009). De Oliveria (2015) found a positive return on investment for brand equity. Firms' market share is also positively associated with brands as they allow firms to retain customers more easily (Sharp, 2002) and increase the firm's customer base due to higher familiarity and better reputation (Stahl, 2010). Brand was also found to positively influence customer satisfaction (Gruca and Rego, 2005, Izzudin and Novandarii) and loyalty (Hung, 2008).

11. Strong and recognisable brands are found to enhance firms' performance on capital markets. In a study comparing a portfolio of companies owning the world's most-valuable brands to market benchmarks, Madden et al. (2005) find that a portfolio composed of companies with widely recognised brands provides returns above the market benchmark at a statistically significant level. Additionally, the same portfolio had a below-average market risk.

12. Given their relevance, it is not surprising that firms invest huge amounts in building brands. According to ONS Experimental Statistics, annual investment in branding in the UK was over £26 billion in 2019, of which £7 billion is on internally generated brands and £19 billion on purchased brands. Applying the Perpetual Inventory Method to ONS data shows that capitalised branding investments would be worth between £71 and £105 billion depending on the chosen depreciation rate as of 2021 year-end (see Villalonga, 2004).

98 In November 2022, for example, the Economist suggested that companies with strong brands will be able to face the perils of expected stagflation.

13. Nonetheless, assessing the value of brands, both internally generated and purchased, can be tricky. For example, it is often difficult to separate brands from other intangible assets (such as customer relations or human capital), making the job of assessing their value complicated. The existence of formal property rights, such as patents and trademarks, can facilitate the measurements of a brand's value (Goodridge, Haskel and Wallis, 2014) but, as emphasised in Damodaran (2007) it can only be applied to certain types of marketing.

3.36 Even when expenditure on intangibles meets the definition of an intangible asset, recognition of internally generated intangibles under IAS 38 is limited to the development phase (see paragraph 1.16). "Determining technical and commercial feasibility is always difficult". (Preparer)

3.37 Stakeholders identified this lack of recognition of some internally generated intangible assets as contributing to the value relevance problem for financial statements. As noted by an investor, "The definition of value is broken. The value factor has underperformed since 2008. It is due to the rise of intangibles. Intangible-heavy companies look expensive based on a Price-to-Earnings ratio. People are updating the value definition that adds back research and development. They change the earnings and get a better value measure".

3.38 The issue of limited recognition was also noted by some PAG and most AFIAG members. Specifically, AFIAG members noted the following:

a) as the economy evolves and digital capital becomes more prevalent companies will want to recognise more internally generated intangible assets, as they are a source of competitive advantage; and

b) with reference to internally generated software, the standard does not provide clear guidance on what is the unit of account or how to amortise this asset, making auditing tricky.

Inconsistent accounting

3.39 As noted in paragraphs 1.18 - 1.19, there are significant differences between the accounting for internally generated intangible assets (frequently expensed because they fail to meet the recognition criteria in IAS 38), and assets acquired externally, either purchased intangible assets (initially recognised at cost) or intangible assets acquired through a business combination (initially recognised at fair value).

3.40 Stakeholders commented that these different recognition approaches lead to significant differences in the accounting for otherwise comparable companies, dependant on whether they have grown organically or via acquisition.

3.41 The following reflect the comments we heard:

a) “We need to level the playing field with IFRS 3 *Business Combinations* [which allows capitalisation of a much wider range of intangibles]; IAS 38 should expand to capture key intangibles”. (Academic)

b) “A good place to start with this question could be with those intangibles that are only recognised through a business combination [IFRS 3]. Should these be recognised irrespective of whether they have been acquired or developed internally?”. (Standard Setter)

c) “There is disparity [in the accounting for] acquisition growth and organic growth. I don’t think it changes decision making, but it can lead to confusion”. (Analyst)

3.42 The academic literature has also identified this issue, for example Barker et al. (2021, pg. 2) noted "Intangible assets from an acquisition such as brands, customer lists, research and even goodwill are indeed currently recognised. Why not those from firms investing internally to develop their brands, customer relations, and research"?

3.43 Stakeholders noted there are also substantial differences in the accounting if the intangible item is captured by a different standard. IFRS 6 *Exploration for and Evaluation of Mineral Resources* permits many research costs to be capitalised. By contrast, in IAS 38 research costs must always be expensed even though “there is a high degree of similarity between E&E and R&D” (Auditor). Another stakeholder noted, “Extractive industries provide an interesting contrast to accounting for intangibles generally, and certainly contradicts the approach taken to R&D. There is no reluctance to impair, and the model seems to work there”. (Accountant)

3.44 Even where the accounting for intangibles is relatively clear, as is the case for research and development, there is evidence of inconsistent accounting between companies. Mazzi et al. (2019) observed that companies in their sample did not adopt a consistent approach to the accounting treatment for research and development, with the majority either fully or partly expensing, raising concerns about the usefulness of reporting. In addition, the authors noted that, in their interviewees’ opinion, the current framework leads to little comparability between companies growing organically and externally.

3.45 This was also noted by some stakeholders interviewed for this research who noted that the criteria for entering the development phase are somewhat arbitrary and open to significant interpretation leading to substantially different accounting outcomes for different entities, even in the same industry.

3.46 The theme of inconsistent accounting emerged from the PAG too. PAG members noted that different treatment of internally generated intangible assets under IAS 38 and assets acquired in a business combination in IFRS 3 could have a “behavioural impact” on companies’ management, such as giving an incentive to grow by acquisition or selectively embark on projects according to what could be

recognised on the balance sheet. This could affect management's judgements and creates inconsistencies between companies' accounts.

3.47 Similarly, AFIAG members commented on inconsistent accounting for intangibles under IAS 38. Members commented on how different companies approach the recognition of intangibles differently, leading to potential inconsistencies:

a) some industries are more R&D intensive than others (such as pharmaceuticals) and in these industries some accounting practices/conventions have developed that may be inconsistent with those used in other industries;

b) auditors see a difference between larger companies, which are perhaps more conservative in recognising internally generated intangibles, and start-ups (often AIM listed companies), which are keener to capitalise; and

3.48 One AFIAG member noted that internationally different local GAAPs imply very different levels of disclosures about intangibles, hampering international comparability for companies with international operations.

Limited disclosure

"We need better disclosure about both capitalisation and expensing". (Academic)

3.49 While there are a substantial number of disclosure requirements for recognised intangible assets under IAS 38, stakeholders expressed some dissatisfaction with them. As one stakeholder put it: "current IAS 38 disclosure requirements are a confused mix" (Auditor). Another stated: "if management think it is important they should be disclosing. But users are getting cynical, they want better information, and are fed up asking for it. I think that accountants are supposed to make accounting understandable to the ordinary person. We should not need experts to help understand the organisation". (Investor)

3.50 Stakeholders noted that there are virtually no requirements to disaggregate and provide granular information about intangible expenditure which is expensed. One interviewee, for example, indicated, "At the moment so much to do with intangibles is lumped together and this is problematic. Investors are trying to strip out the value of the information on intangibles from the financial statements. At the very least cash flow provides you with the best starting information" (Investor). Given that most internal expenditure on intangibles is currently required to be expensed, we heard numerous comments that the current disclosure requirements are inadequate. For example:

a) "Even if you continue to expense (but balance sheet recognition would be better) there isn't enough granularity in the disclosures". (Preparer)

b) "The expenses are not disaggregated enough. You might see R&D and advertising. You won't see training". (Auditor)

c) “If they expense you don’t get information about why they expensed. Why were expenses not capitalised”? (Academic)

3.51 Another theme that emerged is separability, as there are no requirements to disclose the criteria companies use to capitalise expenses. For example:

a) “‘Other intangibles’ seems to be a big bucket of unknown stuff. We don’t have a lot of clarity on when things are being capitalised and when they are not, what decisions are they making, what valuation methodology are they using to value the item on the balance sheet. The amortisation tends to be clearer”. (Investor)

b) “It is difficult to ascertain the policies that entities are using for recognition of intangibles. Sales, general and administrative expenses is a claimed investment but we don't get clarity. There is no one size fits all”. (Investor)

3.52 Many of these themes have also been discussed in the academic literature.

3.53 For example, Barker et al. (2021, pg.17) noted, “IAS 38 also requires the disclosure of additional information about research and development activities. However, entities must disclose the aggregate amount of research and development expenditure recognised as an expense during the period. This is a mixture of research expense, development amortisation and any impairment expense".

3.54 Qualitative research by Mazzi et al. (2019), also based on stakeholder interviews, noted that: “There was general agreement that mandatory disclosure in IAS 38 is minimal and often boiler-plated disclosure on R&D expense and capitalisation. There is a desire for greater disclosure, which would underpin any capitalisation decision based on the six criteria”.

3.55 They go on: “We find that references to R&D-related terms are, in general, minimal in company annual reports, [and] vary significantly in length and location in the annual report. The interviews confirm a demand for more disclosure, especially when development costs are capitalised. Thus companies are encouraged to provide clearer and greater levels of disclosure than that currently provided". (Mazzi et al., 2019, pg 9 – summary of stakeholders’ views, 16 interviewees)

3.56 Disclosure was a recurring theme in discussions with stakeholders and it is likely to be key to any future standard setting in this area. Not only was it raised by all stakeholder categories, but it also emerged that it has driven some stakeholders away from relying on the annual report, instead hunting for the information they need elsewhere.

3.57 An academic stated, “Accounting researchers tend to look for information outside of the annual report, to find relevant material information that can't be found in the annual report”.

3.58 Users indicated that they obtained information on intangibles from other sources, with one noting that “users looking at smaller companies may feel they get an advantage from private information”. (Analyst)

3.59 Limited disclosure was also noted as an issue by PAG and AFIAG members.

Support for the current approach

3.60 Though many concerns with the accounting for intangibles under IAS 38 were identified by stakeholders, some identified reasons why there may be support for maintaining the current approach to accounting for intangibles under IAS 38, either suggesting "do nothing" scenario, or proposing a light-touch approach based on simply enhancing disclosures (see paragraphs 4.78 on).

3.61 Some stakeholders observed that the current accounting was not particularly problematic for users, with a common theme that information could be obtained from other sources.

> "On one level there is not a problem. Investors use financial information along with other information to form their positions. The investment market takes a sceptical view of accounting information, it is the product of a range of assumptions and also incomplete. When you are valuing a company you do not start with a balance sheet, and in many ways the market is already coping". (Asset Manager)

3.62 Others felt that any changes to the standard/current accounting would be too difficult or take too long to implement. Such as:

a) "Intangibles are intrinsically linked to so many other parts of the business and it is very hard to untangle them". (Investor)

b) "I think that the current approach is fairly decent. Say Coke, marketing will bolster its value, but it will make the accounts very messy, and investors would just strip it out. Return on assets is a good measure". (Asset Manager and Analyst)

c) "Developing a radically different new standard on Intangibles is likely to take 20 years". (Auditor)

3.63 There was some support for the current approach at the PAG. PAG members overall agreed that IAS 38 has a high threshold for recognition that potentially precludes some intangible assets from being recognised on companies' balance sheets. Some of them suggested that this high threshold reflected the difficulty in attributing future economic benefits to intangible assets or because intangibles are difficult to identify and evaluate individually. They suggested that any changes to the recognition and measurement of intangibles might be particularly problematic for smaller, less resourced, businesses.

Management's stewardship

3.64 Some interviewees suggested that there may be resistance to changing the current approach to accounting for intangibles. This is because the current accounting is considered relatively "easy" and reduces the need for impairment tests. Also, there is a view that, under the status quo, preparers have the ability to manage company KPIs while, at the same time, investing in intangible items without management being accountable for their investment decisions over the longer term (as most investments are expensed). This view has been put forward by Baruch Lev in his books on accounting for intangibles and was also reflected in at least one interview where a preparer noted that the current approach was preferred by some companies because it allowed them:

"to present their results in the best light. Because expenses are controllable [i.e. research expenditure is discretionary] you can cushion shocks, and avoid the shock of impairment, and smooth growth trends. Also not capitalising helps your return on investment".

3.65 Expensing expenditure on intangibles as incurred means that future earnings do not have to be matched with the amortisation that would be recognised had the expenditure been capitalised. This may allow an element of profit management, e.g., reducing current expenditure on intangibles will have an immediate impact on current profit, albeit at the potential cost of future profitability. Though often management argue (and users accept) that the expenditure on intangibles is not a "real expense" or at the very least is a "one-off" that should be ignored when calculating certain analytical metrics.

3.66 In addition, if no asset is recognised, a company does not need to consider impairment.

3.67 These arguments are reflected in stakeholders' comments:

a) "Companies are not interested in capitalising, life is easier, no need to impairment test". (Accountant)

b) "Results are the most important measure. Preparers want to present this in the best possible light. The current standard allows organisations to choose how much to spend (expense) on research and development etc. By not capitalising Return on Investment looks better and there are no shocks from impairment. Also, you can smooth income". (Preparer)

3.68 One academic noted that auditors may also have an incentive to maintain the current approach in order not to incur higher costs. "Auditors are conservative. Even if a company might want to capitalise auditors don't have the resources and expertise to test the capitalisation, so they push towards expense. And it is even worse with more "exotic" intangibles. It is all very well to think about preparers and users, but auditors are an important part of the process". (Academic)

3.69 Similar arguments appear in the academic literature on the topic. For example, Baruch Lev in his book "Intangibles – Management, Measurement and Reporting" (2001), observes that managers might prefer the "US GAAP-mandated expensing of practically all investments in intangibles" (pg. 88). He argues this is because it allows management to inflate future profit and protect themselves against the embarrassment associated with impairing bad investments. His arguments are equally relevant to the IFRS Accounting Standard environment where the majority of expenditure on internally generated intangibles is expensed.

3.70 Lev (2001) also turns his attention to users (analysts), who he argues often believe that they obtain from managers (and presumably other private sources) sufficient information about a firm's innovation activities. "In fact, public disclosure in financial reports of such information may strip them of privileged information" (pg. 91).[99]

Stakeholders' concerns - in summary

3.71 Stakeholders raised a range of concerns about the accounting for intangibles under IAS 38. A common refrain was that IAS 38 was an old standard, which seemed to reflect concerns that it was no longer in line with the requirements of the *Conceptual Framework*.

3.72 Building from this, stakeholders identified the following as significant issues: limited recognition of intangibles; inconsistent accounting for internally generated and acquired intangibles under IAS 38 and in comparison with other IFRS Accounting Standards; and limited disclosures.

[99] This is not intended to suggest these are valid arguments for not changing the accounting from a standard setting perspective, rather they may give context to some arguments put forward to maintain the status quo.

4. Stakeholders' suggestions for potential improvements: opportunities and challenges

"We would argue that better accounting would provide better information. Consistency and clarity will help". (Investor)

4.1 This section outlines stakeholders' suggestions of how the accounting for intangible items could be improved. Some of the challenges raised, related to those suggestions, are also considered. As previously noted, this report outlines the perspectives of various UK stakeholders; it does not provide the UKEB's views on potential solutions for accounting for intangibles.

4.2 Given the range of issues with accounting for intangibles flagged by stakeholders (see Section 3), it would appear there is an expectation by some stakeholders that the IASB's project will result in changes to the accounting for intangibles, though not everyone shared this view. As one preparer noted, "the IASB needs to be ambitious with the project. This includes both recognition and measurement".[100] (Preparer)

4.3 The research did not find a consensus on the improvements suggested by stakeholders; however, some themes emerged. These can be summarised as:

a) Fundamental considerations:

   i. the advantages of accrual accounting;

   ii. removing differentiation between tangible and intangible items; and

   iii. separate accounting for different classes of intangibles.

b) Enhanced recognition.

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100 As noted in Section 3, there was broad consensus that the accounting for intangible assets under IAS 38 does not always provide investors with all the necessary information they need to allocate capital, thus may not support the objective of general-purpose financial reporting as laid in the conceptual framework. Any proposed improvements will therefore have to bring the accounting back in line with this objective: "The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors [users] in making decisions relating to providing resources to the entity" (Conceptual Framework, paragraph 1.2). Users need information about the economic resources of the entity and how efficiently and effectively the entity's management have discharged their responsibilities to use the entity's economic resources [stewardship] (Conceptual Framework, paragraph 1.4). As Penman (2009) stated, "Accounting is utilitarian, so the accounting research question is one of developing accounting that handles intangible assets in a way that helps rather than hinders the analyst who wishes to value the firm". (p. 365).

c) Measurement:

i. measurement at initial recognition;

ii. subsequent measurement - cost model; and

iii. subsequent measurement - fair value model.

d) Enhanced disclosure:

i. more granular disclosure of expenses; and

ii. other disclosures.

4.4 Materiality also emerged as a theme. This is also explored in this section.

Fundamental considerations

The advantages of accrual accounting

4.5 A cornerstone of accounting is that accrual accounting provides better information to support decision making by users.[101] Accrual accounting tells the story of the transaction and the flows arising from it. It records the cash flow (expenditure); capitalising that expenditure provides a cumulative record of what has been spent; amortisation gives an indication of how much of that expenditure has been 'used up' and the period over which the entity expects to continue to obtain benefits; and impairment provides information about changes in expectations.

4.6 This fundamental concept and its application to intangibles was reflected in many of the stakeholder interviews, even in instances where they did not specifically use the term "accrual accounting".

4.7 At a basic level, stakeholders indicated that information about intangibles is important, not only because they are becoming increasingly prevalent but also because they are key drivers underpinning future profits and business value.

4.8 Enhancing recognition of intangibles through capitalisation could be one way to provide useful information. As one analyst noted, *"*my plea for intangibles would be to require management to account for what is happening internally, we should be capturing internal activities. Core spending on intangibles should be capitalised. An alternative would be greater detail on the expenditure".

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101 This is reflected in the Conceptual Framework: "Accrual accounting depicts the effects of transactions and other events and circumstances on a reporting entity's economic resources and claims in the periods in which those effects occur, even if the resulting cash receipts and payments occur in a different period. This is important because information about a reporting entity's economic resources and claims and changes in its economic resources and claims during a period provides a better basis for assessing the entity's past and future performance than information solely about cash receipts and payments during that period." (Conceptual Framework, paragraph 1.17, emphasis added).

4.9 In the context of research and development, another user commented that "when assessing a company, its research and development track record is important. If [under an accrual model] they capitalise on the balance sheet £10 billion but spend £40 billion, then you can assess better their return if the intention is for the accounting to reflect the nature of the business". (Analyst)

4.10 This was also reflected by an auditor who noted that "if you capitalise, at least you get information on [project] abandonment through impairment". (Auditor)

4.11 Stakeholders also commented on the general relevance of accrual accounting in the context of intangibles, while also pointing out related difficulties such as. "An accrual accounting approach to intangibles would have greater predictive value. But a lot of it will ultimately be capitalised salaries which are very grey". (Investor)

Removing differentiation between tangible and intangible items

4.12 One approach proposed by a stakeholder to address concerns about the accounting for intangibles was simply to abandon the concept of tangibles and intangibles. He noted: "Intangibles is not a helpful distinction. You do not need to develop separate standards for tangible and intangible items".[102] (former Standard Setter)

4.13 Rather than developing standards that are premised on the intangibility or otherwise of items, the accounting would focus on the nature of the item and its use within the business, be that for sale in the ordinary course of business (like inventory), a core element of ongoing operations (like property, plant and equipment) or as an investment (like investment property or certain financial instruments). For many intangible assets this would mean applying the existing accrual accounting recognition and measurement models that apply to tangible assets.

4.14 This view is in contrast to the earlier discussion of the economic characteristics of intangibles (see paragraphs 2.9-2.10), which suggests there may be something fundamentally different about intangibles that is relevant to their accounting. This discussion deserves further exploration in future research.[103]

Separate standards for different classes of intangibles

4.15 Another potential solution, suggested by a preparer, was the development of specific standards, or at least separate requirements within a single standard, for specific classes of intangibles: "Key types of intangibles around which standards (or requirements) could be developed are: (i) Relationship intangibles (including

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102 A similar view is expressed by Barker et al. (2021, page 2).

103 "Intangible assets differ from tangible assets not just because they lack physical appearance but also because they are not identifiable such that contracts can be written on them for delivery. Explicit legal rights like patents and copyrights, and possibly brands, are exceptions (and these are booked to the balance sheet if purchased, as with any other asset), but 'customer relationships', 'organization capital', 'knowledge assets', 'human capital' and the like are not specific enough for a market price ever to be observed for them" (Penman, 2009, p. 359).

workforce); (ii) Technology related intangibles; (iii) Artistic intangibles; (iv) Brand/trademark intangibles; and (v) Workforce and human capital". [104] (Preparer)

4.16 This approach could risk reinforcing some of the concerns raised about current accounting for intangible items in the earlier sections. Developing separate standards (or separate requirements) for specific categories of intangibles (no matter how broad) carries with it the risk that the identified items (or classes of items) may become irrelevant as the economy and business models develop and new types of intangibles arise. In addition, a classification based on type can potentially introduce inconsistencies between relatively similar types of assets (research and development under IAS 38 versus exploration and evaluation of mineral resources under IFRS 6 for instance).

4.17 The two views discussed above, i.e., abandoning any concept of differential accounting for intangibles and developing a range of standards for specific types of intangibles, represented the ends of a continuum of proposals suggested by stakeholders. While most stakeholders tended to be focused on broad principles that could be developed to enhance the accounting for intangibles, this does not exclude different accounting approaches depending on characteristics of the intangible, such as the strength of rights, existence of markets or use to which the intangible is intended to be put.

Enhanced recognition

"There is value in having the information about intangibles in the balance sheet". (User)

"Now is the time to think about how to recognise and measure [intangibles]. Investors know this issue. They need more information". (Academic)

4.18 The application of accrual accounting means addressing when an intangible item should be recognised as an asset. As noted in Section 3, stakeholders identified the limited recognition of intangibles under IAS 38 as a problem with the standard.

[104] A view that was shared by several stakeholders is that "a key intangible that should be reflected in the financial statements. There is value in the collective knowledge (assemblage) of the workforce." (Preparer).

4.19 A range of stakeholders identified possible intangible items that could be recognised and capitalised[105] under a new accounting standard. The types of intangibles mentioned most frequently as candidates for possible recognition on the balance sheet were:

a) the research component of R&D (in addition to development which can be recognised under IAS 38);

b) training;

c) certain marketing expenditure (that contributes to developing brand); and

d) new intangibles such as databases and AI algorithms (less frequently mentioned when compared with others in this list).

4.20 Currently, recognition of such items is generally prohibited (see paragraph 1.14). Where they are strategic to companies' future performance recognising them could provide better information to users of the financial statements.

4.21 An auditor noted that stakeholders can already get the data from alternative sources, but that: "It would be better to get data from inside the company. This enhances reliability". They also observed: "Once you put a number on the balance sheet it forces disclosure and commentary. It will get audited. It will get attention from regulators".

4.22 Some stakeholders requested a simpler approach to the criteria for recognition under IAS 38, which they viewed as problematic.

4.23 One academic commented: "At the moment the standard has many criteria for recognition. Why not just focus on future economic benefit? Users think the criteria are not clear. We don't understand how they can be applied consistently. Reduce the criteria or make them clearer".

4.24 This reflected views in academic literature too. For example, a report published by ACCA and Deloitte in 2019 looking at the capitalisation of research and development expenditure[106] stated: "In relation to IAS 38, relaxing the criteria for capitalisation by reducing their number could be the way forward. This may help improve the value-relevance of financial information by more fully matching revenues with costs in the income statement through capitalising and amortising expense on value-creating assets such as R&D. Further, a reduction or simplification of the capitalisation criteria could also result in giving companies less room for exercising earnings management and increasing auditors' ability to assure any capitalised amounts".

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105 For the avoidance of doubt, in this section when we refer to recognising and/or capitalising intangible assets we mean 'internally generated intangible assets'.

106 Mazzi et al., 2019, pg 9

4.25 Stakeholders argued that the first step to enhancing recognition would be to step back from the specific requirements in IAS 38 and instead take an approach more closely aligned with the current conceptual framework (see paragraphs 3.9 – 3.20).

4.26 A specific example was provided by a preparer who commented on training delivered to a workforce to enhance its productivity. "An entity controls the collective workforce, if not any given individual. This information would be useful to capture and the conceptual framework seems to allow it".

4.27 A similar point was made by an auditor: "Human capital resides in the workforce not the individual. It may be a budgetary expense, but if thought of as an investment this would change the thinking about this spending. Investments in intangibles makes the employee more efficient. Employees can enhance the value of an intangible".

4.28 A regulator noted that this approach to employee training would be consistent with the approach taken to customer relationships. "One of the arguments for not capitalising training costs is that your staff might leave, you don't control them, but equally our customers aren't controlled, yet you recognise customer relations and lists in a business combination".

4.29 In addition to training, advertising and marketing were also mentioned by stakeholders as expenditures on intangible items that could potentially be recognised as assets under the current Conceptual Framework and that should be considered as part of a review of the accounting for intangibles.

4.30 An analyst noted: "Design and product design are key intangibles, along with market research and branding and business process engineering. These are key economic competencies that are not captured [by IAS 38]".

Risks from enhanced recognition

4.31 However, stakeholders also identified potential risks with an enhanced recognition approach.

Increased judgement

4.32 Users of financial statements raised concerns that enhancing recognition (and subsequent measurement) would introduce significant judgement into the accounting process – on whether there is an asset to recognise and its quantum. An investor said, "Useability of financial statements is impacted by uncertainties. If the financial accounting is not clear, you have to go down into the weeds".

4.33 Another investor raised a similar concern, "Any measure that uses estimates is open to interpretation, especially if the estimates are not disclosed. This makes life very confusing. Expensing the R&D does not necessarily make it harder to understand the company".

4.34 An auditor noted: “How do you identify expenses? For example, an advertising campaign: how do you identify what is cost of sales in the current period and how much is appropriately the cost to maintain an intangible for “brand”, how do you separate from other business activities?”

4.35 A preparer was concerned that users may not fully understand the process through which intangibles are capitalised in the financial statements: “Preparers can see the philosophical merits of capitalisation but worry that there are few analysts who spend enough time to understand the process”. Whilst another highlighted the increase in legal risk arising from greater use of estimates, “Companies are concerned about litigation threat. Intangibles come with greater requirements to make estimates”.

4.36 These concerns are consistent with a regulator’s view: “while currently intangibles are not a highly recurrent area of concern, when questions do arise, they are usually about the judgements and estimates that have been made, specifically impairment, valuation and useful life”. These are the very judgements that would become increasingly important if an enhanced recognition approach was incorporated in a future standard.

4.37 Some stakeholders expressed concerns about recognising specific intangibles suggested by others:

a) “It becomes difficult when we are talking about brand recognition. There is not a direct link between marketing and a sale, so, sure you could add the marketing, but it would complicate the process”. (Preparer)

b) “I would not support capitalisation of marketing or training as there is not real control”. (Investor)

c) “Many new intangibles will be hard to account for, especially if there is not a reliable measurement of their cost ”. (Auditor)

Reduced comparability

4.38 A resulting reduction in comparability of information was also raised as a concern. “Entities will start to come up with weird categories of intangibles if left to themselves which will harm comparability. There is weird aggregation of intangibles already”. (Academic)

4.39 A similar observation was made by a preparer who noted, “Internally generated intangibles will introduce a lot of variability in the financial statements. This would be against the consistency approach”.

4.40 This is consistent with an analyst’s view who noted, “We could see the value of capitalisation but we also want consistency. Companies should not have too much subjectivity”.

Reduced understandability

4.41 Stakeholders appeared concerned that capitalising intangibles could make the financial statements harder to understand. As a preparer said, "Each initiative in financial accounting seems to make things more complex. More detail may not be helpful, but we need to understand what users want". (Preparer)

4.42 Some users were also concerned about the understandability of financial statements if intangibles were more widely recognised. "Capitalisation of intangibles would make accounts more difficult to understand. There is already material information about intangibles that is discoverable by reading the accounts. And putting the time in to read the accounts gives you an edge". (Investor)

4.43 But users acknowledge there is a balance to be struck, "Intangibles are important. There is a trade-off between understanding the reporting and accurately reflecting the underlying assets. The current accounting standards verge towards reliability". (Investor)

Prudence

4.44 Prudence was also raised as a concern, a preparer noted, "Some preparers are concerned that capitalisation of intangibles, particularly at an early stage, is not prudent".

4.45 Related to this, an auditor suggested that users of financial statements might have concerns that management would over-capitalise intangibles and noted, "Investors seem to be the most sceptical. They tell me they are not interested in the valuation given by management. They seem concerned about management's estimates. They seem concerned that management will massively over-capitalise. And yes, there could be problems, but you can mitigate this". (Auditor)

UKEB Advisory Groups' views

4.46 Enhanced recognition of intangibles was discussed by three of the UKEB's Advisory Groups, the Preparers Advisory Group (PAG),the Accounting Firms and Institutes Advisory Group (AFIAG), and the Investors Advisory Group (IAG).

4.47 IAG members expressed some reluctance towards enhanced recognition suggesting that they prefer information about intangibles to go through profit or loss. One IAG member noted that "intangible assets are seldom used to value an entity. They are one of the first few things that get stripped out, including their amortisation, when analysing a company." The same member noted that enhanced recognition can generate volatility through the profit or loss. Another IAG member noted instead that Including intangible assets may "undermine the credibility of financial statements". One IAG member however noted that for assets that are genuinely identifiable and sellable, they support recognition on the balance sheet. Most IAG members supported instead enhancing disclosures about intangibles expenses, a point that is discussed further in paragraphs 4.78 on.

4.48 Both PAG and AFIAG members agreed instead that enhanced recognition could be a way forward (though AFIAG members noted that it would make auditing more challenging). The AFIAG noted that the recognition criteria of IAS 38 could be loosened to allow companies to recognise internally generated brands and employment/training costs. In particular, they noted training to deliver a specific contract should be capitalised. However, within the PAG there was disagreement with this view. It was suggested that there may be inconsistencies between companies on the methods used and issues with the accuracy of the estimates.

Some PAG and AFIAG members identified difficulties to be considered when enhancing recognition, largely attributable to the inherent characteristics of intangible assets (see paragraphs 2.10-2.11). PAG members noted that:

a) recognition of intangibles among international companies may be tricky because it may be complicated to attribute portions of a global brand to different geographies/jurisdictions; and

b) the entirety of operations may, in theory, contribute to supporting the value of a brand, so identifying what expenses should be capitalised would be tricky.

AFIAG members noted that:

a) one difficulty with recognising intangibles lies in working out when a company would stop capitalisation of expenditure. When does development finish? When does amortisation start? For assets that generate an income stream, at what point is an expense considered actual investment in the asset?

b) there is what might be called a boundary issue. While tangible assets are generally clearly delineated, when it comes to intangibles it can be difficult to distinguish what expenditure clearly attaches to an intangible item e.g., expenses like holding extra inventory or customer discounts might contribute to developing a brand.

Measurement

"Accountants often get too caught up on the best measurement". (Investor)

4.49 Stakeholders expressed a range of views regarding the best model for subsequent measurement of intangibles, particularly under an enhanced recognition approach.

4.50 Overwhelmingly, a cost-based measurement model was favoured for initial recognition of internally generated intangible assets. However, stakeholders considered fair value could provide more relevant information for subsequent measurement of some intangibles.

Measurement at initial recognition

4.51 Stakeholders viewed capitalisation of costs related to intangibles as a way to address the inconsistencies between the initial recognition of internally generated intangibles and other assets (including acquired intangibles, especially in a business combination).

4.52 This is consistent with the requirements in IAS 38 for purchased intangibles and the limited number of internally generated intangible assets that can be recognised. No stakeholders raised specific concerns about the IAS 38 approach for measuring purchased items.

4.53 An academic noted that their own research with users of financial statements supported this view. "Our discussions with the users show they are happy to have these items on the balance sheet. But they want to know how the value has been determined. They do like capitalised R&D they don't want the current US approach.[107] In the end, users feel they can only rely on cash flow because they don't trust the current mixed model. But they are interested in the useful life, they are interested in impairment. Balance sheet capitalisation does give useful signals".

Subsequent measurement – cost model

4.54 An important element of the cost model identified by stakeholders was that it would incorporate amortisation (unless an intangible was determined to have an indefinite useful life) together with impairment testing.

4.55 Stakeholders noted that organically replaced assets could have an indefinite useful life if they are "maintained". As an investor commented, intangibles can be either "wasting (such as patents) or organically replaced (brand)".

4.56 The potential for organically replacing the value in intangible assets complicates an approach based on the cost model as it means that "[companies] need to split out investment and maintenance". (Auditor).

4.57 However, it may also provide better information for users, as one analyst noted: "At the end of the day cash flow is an ultimate truth, but better insights into the nature of the operating expenditure such as maintenance vs investment, would be interesting".

[107] US GAAP prohibits, with limited exceptions, the capitalisation of development costs. Development costs are capitalised under IFRS if certain criteria are met.

4.58 This theme of maintenance versus investment in intangibles emerged in a number of specific contexts:

a) "Some training is more like maintenance; make management explain why they are doing something". (Investor).

b) "In many ways the value of the brand is captured in the gross margin of the product. Organic growth is hard to measure, how do you separate marketing [enhancing] versus advertising [maintenance]". (Investor)

4.59 If a cost model for subsequent measurement were to be developed, the hurdle of separating maintenance and investment costs would need to be considered.

4.60 Preparers of financial statements were the primary group of stakeholders who raised the most significant concerns about a cost model. One preparer argued that early-stage research by companies should not be capitalised: "It is too remote from a commercial product. What is the unit of account? Assigning costs to specific products can be very difficult. Companies and auditors would argue about any allocation as it is subjective".

4.61 An auditor's related view was, "The thing that is difficult is the relationship between input and output. For tangible items there is generally a relationship between cost and value, for intangibles this relationship breaks down".

4.62 Both PAG and AFIAG members discussed the implementation of a cost model as a way forward. Members from both groups suggested that this would be the preferred measurement model, in conjunction with a possible relaxation of IAS 38's recognition criteria. One AFIAG member suggested the use of a cost model for carbon credits. However, they noted there was still a question when any capitalised intangibles, such as carbon credits, should "hit the income statement": when they are used, or as they expire?

Subsequent measurement - fair value

4.63 An alternative approach to subsequent measurement of intangibles would be to use a fair value model. A few stakeholders expressed views about this approach, with no clear consensus emerging. In principle, fair value measurement would help address some issues that are specific to intangibles, e.g., the potential disconnect between cost and expected economic benefit, the potential for significant changes in value over time, etc. In practice, fair value measurement for assets not regularly traded in an organised market tends to be complex and costly, due to the use of valuation models. In addition, a fair value approach has the potential to reflect economic volatility in companies' balance sheets. Stakeholders expressed contrasting views as to whether this volatility would always contribute to the usefulness of financial statements. However, where assets are held for trading or investment purposes or there is a clear market value there was more support for this approach.

4.64 Fair value measurement for intangibles as a potential solution was discussed by both the PAG and AFIAG.

a) PAG members suggested that fair value could be more appropriate for particular types of intangibles. For example, one PAG member noted that for brands, such as Coca-Cola, the fair value of the brand matters more than the capitalisation of the amount previously spent, or being spent every year, to maintain brand awareness. PAG members noted that fair value may be needed by users, though one member raised the point that valuation methodologies should be disclosed to and assessed by auditors.

b) AFIAG members suggested that the decision whether to use a cost or a fair value model may depend on the intended use of the asset: assets held to invest or speculate should be measured at fair value (an issue that is particularly relevant when considering crypto assets: see Box 1), whilst assets held to support operating activities should be measured at cost.

4.65 Some AFIAG members identified difficulties to be considered when applying a fair value model to intangible assets:

a) that the value of most intangibles is difficult to identify as there must be, at a minimum, two willing counterparties (a buyer and a seller) to identify a transaction price, in absence of which measurement at fair value (when allowed) could be difficult.

b) that some intangibles may be tricky to measure at fair value. For example, how does one measure the market value of customer relationships? Using perhaps the salary of sales managers?

Balancing relevance and reliability

4.66 Some stakeholders who discussed fair value noted that using a fair value model for subsequent measurement is about balancing 'relevance and reliability', a point that is also noted *in the Conceptual Framework* (2018) (Chapter 6) and academic literature.[108] Striking this balance is particularly important (and perhaps more challenging) for intangible assets, given the inherent characteristics, discussed previously, shared by many intangible items and the measurement difficulties linked to them.[109] As one academic noted, "There is a huge trade-off between

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108 As noted in Zavodny (2021), "The debate about the trade-off between relevance and reliability most commonly addresses the measurement issue, in particular when deciding on the pros and cons of historical cost accounting vs. current value accounting. Historical cost accounting is relatively reliable since the cost of an asset or liability to a firm is usually a verifiable number that is less subject to errors of estimation bias, present in current value calculations. However, historical costs may be low in relevance. While cost may equal current value at the date of acquisition, the equality will be lost as current values change over time. Consequently, the relevance of current value accounting generally exceeds that of historical cost. But the need for estimates when conditions are not ideal opens current value accounting up to problems of reliability". See also Liang and Riedl (2014), Fukui and Saito (2020).

109 As noted in Schöndube-Pirchegger, B., Schöndube, J.R. (2017): "[The results of the paper] reflect that for some items reported in financial statements—certainly not for every single one—a trade-off between relevance and reliability exists. Ready examples besides traditional revenue recognition… **are fair value recognition for assets or capitalization of self-created intangibles.**" (Emphasis added).

relevance and reliability. Revaluing intangibles or writing them down can create valuation advantages". (Academic)

4.67 A note of caution about fair valuing intangibles is offered by Stephen Penman in a 2009 paper titled "Accounting for Intangible Assets: There is also an Income Statement":

"A conjectured value of a conjectured asset that can never be validated with a market price is inherently speculative; value is in the mind of the beholder. This was so for the 'intangible assets' conjectured in the 1990s bubble for which there was no subsequent manifestation. Accounting runs into trouble when speculative, conjectured values enter the financial statements, more so when the asset's existence itself is conjectural". (Penman, 2009, p. 359)

4.68 An analyst raised a similar concern, "For a lot of companies, intangible assets are the key assets, Coke has the brand of Coca-Cola for example. The problem is that no one knows the value, it is totally subjective and very hard to know what is right. This means it is not useful; it is too easy to disagree with the value".

4.69 An auditor noted that valuation issues arising from a lack of market data may become less problematic as markets are developing that could support the use of fair value measurement for some intangibles. "Intangibles are seldom traded in markets. But what is starting to happen now, especially in the tech sector, people are buying businesses to get the IP or the employees. Transactions for intangibles are increasing and we are starting to get more market data".

Cost versus benefit

4.70 A preparer noted, "There is a question of cost/benefit when it comes to using fair value. But accountants should be comfortable with fair value, we use it in a number of standards where it is necessary to make estimates. Defined Benefits and Share Based Payments for example. We should look to the valuers to come up with consistent models for valuation".

4.71 Preparers particularly face a cost-benefit trade-off, with a fair value model likely to be more costly to implement but also potentially more beneficial for investor decision making.[110]

Volatility in the financial statements

4.72 While stakeholders noted that techniques for estimating fair value exist and new marketplaces would make fair value measurement easier, they were concerned that measuring intangibles at fair value would lead to higher volatility in the financial statements. In particular, preparers were concerned that users of financial statements would over-react to the volatility arising from use of fair value measurement. A preparer argued: "Users will need to get comfortable with

[110] The Conceptual Framework notes that the information provided by measuring assets at fair value may have predictive value (paragraph 6.32)

increased fluctuations in the value of balance sheets, and the consequential impact on P&L".

4.73 Not all stakeholders considered added volatility to be negative. One academic stated: "Economic volatility is a reality when it comes to intangibles, this should be reflected in the financial statements".

Property rights

4.74 Some stakeholders suggested that a fair value model is more appropriate in the presence of well-defined property rights. "There are a range of intangibles that embody certain levels of 'right'. Patents come with a high level of protection and certainty. This makes fair value a clearer option. Other intangibles, like brand, have lower rights. A cost model would be more appropriate here". (Auditor)

4.75 A preparer noted another issue to consider, "Understanding rights and obligations is a key factor. For cryptoassets [and intangibles more generally] the terms and conditions are very variable. And understanding the contracts and terms is key".

4.76 By contrast, an academic argued that while rights were important it was not a question of whether fair value should be used, but rather how it is used, "if you use a valuation model this takes account of the strength of the rights".[111]

4.77 It appears that while there is some support among stakeholders for a fair value approach, it would need to be considered in the context of the information that is available to support any valuations, and clarity over what is being valued.

Enhanced disclosures[112]

"Disclosure is going to be an important part of any solution. (Auditor)"

"At the very least, better [requirements for] expense disclosure that are more granular would support better stewardship and inform expectations about future growth". (Preparer)

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111 Additionally, an academic stakeholder expressed concerns about the adoption of a fair value model across jurisdictions with different levels of economic and institutional development, a view that emerged from one interview only but we believe is worth flagging because of its broader relevance to IFRS Accounting Standards: "With regards to measurement I would stay with the cost model. Given the variety of intangibles a strict fair value model would be difficult and costly. Keep in mind that IFRS are used in over 100 countries. They don't have the size of firms, or the international features of firms in London. The average preparer is not a FTSE350 entity. Many of the firms must be small. They will not have the resources to implement a complex standard. A lot of standard setting decisions are driven by very large firms, but we ignore the small firms that must also comply. Emerging markets even more so." (Academic)

112 Unless otherwise noted, in this report by "disclosures" it is meant added disclosures/notes to the main financial statements. Some paragraphs or quotes discuss disclosures contained in the first half of the annual report; these are explicitly noted.

4.78 Enhanced disclosure was the strongest theme to emerge from the research. Some stakeholders considered enhanced disclosure an important adjunct to enhanced recognition and measurement. However, others considered enhanced disclosures on their own as sufficient improvement to the accounting for intangibles.

4.79 Given the focus on 'accounting' for intangibles, most discussions about disclosure with stakeholders were in the context of the notes to the financial statements. It was acknowledged that management commentary could also be used to enhance disclosure but there was a general assumption that an accounting solution would involve the notes to the financial statements.

4.80 Almost all stakeholders interviewed suggested that even if a new standard on intangible items does not lead to greater recognition and measurement, there is still significant scope for enhancing disclosures. In particular, stakeholders:

a) would like to see more granular information about intangible expenditures; and

b) suggested including other types of disclosures, such as drivers of value linked to intangibles, and their related risks.

4.81 Users of financial statements, including investors and analysts, specifically argued most strongly for improving disclosures. For many, this was their primary recommendation with regards to accounting for intangibles.

4.82 Enhancing disclosures may be the most straightforward first step to improving accounting for intangible items. As one academic noted, "Obviously we need to consider recognition and measurement, but these are difficult. Disclosure is less unpromising".

4.83 Both the AFIAG and the PAG discussed disclosures about intangibles and agreed that they should be enhanced. PAG members noted that enhancing disclosures around intangibles may be a viable solution, though one PAG member noted that information on intangibles may be commercially sensitive. AFIAG members supported the idea of enhancing disclosures, both in the notes to the financial statements and in the front-end of the financial report. However, they called for better guidance or definitions on how to report expenses more granularly, as well as on the unit of account to be used to facilitate comparability.

More granular expense disclosures

4.84 Stakeholders noted there is significant scope for increasing the disclosure about expenses related to intangibles. Many stakeholders would like more granular disclosure in the notes to the financial statements about the types and nature of expenditure, including but not limited to specific information on marketing, IT, training and research.

4.85 The view that more granular disclosures would improve the accounting for intangibles was raised by virtually all users interviewed, for example:

a) “We spend a lot of time trying to figure out the intangible spend. Enhanced disclosure on expenses would be useful, like a breakdown of research and development and clear identification of marketing expenses”. (Analyst)

b) “Sell-side do not really care about what is in the balance sheet. It is retrospective, the value comes from the future. We just want better break downs of [expense] information to help us extrapolate”. (Analyst)

c) “Forecasting cashflow is easier when we understand marketing spend.” (Investor)

4.86 This view was not just limited to users of financial information. Stakeholders from a variety of backgrounds shared similar views:

a) “Maybe disaggregation of the profit and loss statement will help”. (Auditor)

b) “We need to move from the idea of an intangibles assets standard to one that also addresses intangible expenses.” (Auditor)

c) “I would rather see expenditure broken out more clearly”. (Academic)

4.87 Users noted that they would like to be able to disaggregate information on expenditure that enhances a company’s productive potential, from that which is simply for maintaining it:

a) “I would like to see more information on the split between investment and maintenance. Then more information on the nature of the investment, then I can make more accurate estimates on useful life etc”. (Analyst)

b) “We have seen research that splits [capital expenditure] and [operating expenditure] for intangibles. This is useful information in the tech field. But capitalisation could create more noise than signal”. (Analyst)

4.88 Similar views can be found in the academic literature.[113] For example, Nixon's paper (previously referenced) notes that preparers believe:

"Disclosure of information is the key factor determining the value that the capital markets attribute to a company's R&D expenditure rather than its treatment; the tension between the prudence versus accruals concepts that preoccupy the accounting standard-setters is, in the view of respondents to this survey, of little relevance".

4.89 Some stakeholders' (in particular users') preference for only enhancing the granularity of expenses disclosure was due to their preference for assessing a company via the cash generated and related profit and loss information. For example, one credit analyst said: "On a day-to-day basis, intangibles are not a huge issue for a credit analyst, because we are focused on earnings and how it translates into cash flow. Our focus is on EBITDA and cash flow".

4.90 Another investor noted: "I am not sure the balance sheet is as useful as the IASB thinks it is. Financial Markets are focused on income if you look at the models. Impairments are too slow. And the drivers are too slow". (Investor)

4.91 IAG members widely supported the idea of having more granular disclosures around intangible expenses, and in particular disclosures about expenses versus maintenance costs. One IAG member said: "identifying what has been spent, key value creators and the percentage of revenue used to develop an asset is useful information to have". Another IAG member said: "It would be useful to see granular disclosure through income statement". A third IAG member said: "Maintenance cost or expenditure on intangibles could be useful in determining the key drivers of values… especially for some industries where intangibles are quite important".

Other types of disclosures

"There will always be limits on how much information the financial statements can convey to help investors assess future cash flows. Although the accounting system relies on assumptions about the future, it is limited to capturing transactions and events that have taken place. Management has information beyond that in the financial accounting system that can help investors estimate future cash flows". (Barker et al. 2021, pg. 26)

113 "Presentation within the income statement is also important, to separate current expenses from investment activity. For example, expenditure that is intended to generate future cash flows, but is too uncertain to be shown as an asset in the balance sheet, should be separated from current expenditure. Similarly, the consequences of the resolution of an uncertainty, including impairments, conveys different information to that in current expenditures." (Barker et al. 2021, pg. 26)
"The Institutional Shareholders' Committee (ISC) stated in a 1992 report that its members are not concerned about the accounting treatment of R&D expenditure provided that there is adequate disclosure to differentiate research from development and to evaluate the productivity and effectiveness of the expenditure. Fifty-four per cent of respondents agreed that the more information provided on R&D expenditure the less important is the issue of accounting treatment although a significant minority (35%) disagreed." (Nixon, 1997, p. 273)

4.92 Stakeholders wanted information in the notes to enable users to understand the relationship between intangibles, whether capitalised or expensed, and a company's business model. Further, they also considered better information on the company's expectations as to whether expenditures on intangibles were expected to maintain or enhance future cash flows would be useful (this was generally in addition to a more granular analysis of expenses, discussed above).

4.93 The need for enhanced disclosures was shared by all the different types of stakeholders interviewed, for example:

a) "Disclosure is incredibly useful when it gives you information on non-cash items. It is also important where there is subjectiveness to value". (Investor)

b) For intangibles we are looking at other information as the number itself is not particularly useful. There are always qualitative factors that go into any rating. There will also be a governance assessment. And none of this can be a number in the balance sheet. The more complex the business the more information you need, a balance sheet is never particularly useful on its own". (Credit analyst)

c) "The real opportunity is not necessarily putting in a number in the balance sheet, but other indicators could be useful that support the business model. Every genuine investor would welcome better insights into drivers". (User)

d) "We can see what you have invested, but we need more information on the relationship with expectations". (Investor)

e) A preparer indicated that disclosures might offer a better way for companies to communicate about intangibles and noted: "The key issue around intangibles is understanding the reporting entity and the story it is telling, rather than running the accounts through a sieve. One size doesn't fit all when it comes to the accounting. Better corporate reporting needs to focus on the narrative, rather than arguing so much about the balance sheet".

4.94 A specific type of disclosure raised by stakeholders would link intangibles to related Key Performance Indicators (KPIs) through the notes:

a) "Key drivers would be useful to disclose. For example, employee churn by division, or customer satisfaction (net promoter score)" (investor).

b) "Identifying the KPIs that drive value and discussing them will be key" (analyst).

c) "[Through the notes] you can start to create linkages between management objectives, intangibles (especially IP) and how this drives sustainability" (academic).

4.95 If more intangibles were recognised on the balance sheet, then including information on KPIs may also help to address users' and auditors' concerns about over-capitalisation. For example, management could link useful life, as well as impairments, directly to the drivers of value which intangibles are expected to provide. As one investor noted, "We should be tracking the relationship between expectations and outcomes".

4.96 Stakeholders also considered information on these key drivers central to linking financial reporting with future ESG reporting and thought these relationships would provide particularly useful information. For example, "ESG is value relevant, but the linkages to value are hard to establish. Intangibles are a good scorecard for the "S" in ESG. This is related to human capital and brand. What is the value driver for human capital? Perhaps turnover or [employee] satisfaction". (Auditor)

4.97 Stakeholders also sought disclosure about the stewardship of intangibles. "Internal management struggle with managing IP. Investors want to know about the portfolio of patents and trademarks, but they also want to know how the board is managing these key assets, who has responsibility. There is a strong link to stewardship". (Academic)

4.98 Finally, stakeholders said that disclosure in the notes to the financial statements (as opposed to, say, the management commentary or the strategic report) ensures that this information is audited and noted:

a) "The advantage of including this information in the financial statements (rather than management commentary) is that it is verified (audited) and it is relevant to the financial performance and position of the entity". (Standard Setter)

b) "Regulation and auditing are key as is timeliness. Anything disclosed should be very clearly tied to the financial statements. The notes should really clarify why things are being expended and did it meet the requirements to be capitalised". (User)

c) "If the information is there it allows you to ask better questions; you get better outcomes". (Auditor)

d) "Good disclosure is very useful particularly when it is comparative (horizontally and vertically). If you are forced to disclose something in the financial statements, it gets more attention". (Investor)

4.99 It is clear that disclosure is seen as a key to any future accounting standard on intangibles. Any standard would need to ensure that users of financial statements assess this important element of the financial statement in a broader context and have the information to support better decision making.

Materiality matters

"Users are not getting the useful information they want. Not enough relevant information, too much irrelevant information. You need to apply materiality better. Help us by focussing on what you think is important". (Investor)

4.100 The issue of materiality was raised in many interviews. As noted, increased granularity of disclosure was one of the strong themes to emerge from stakeholder interviews. It was observed that intangibles are important drivers of value, but carry increased risk and uncertainty. Greater disclosure and finer detail would be required to help users of financial statements assess their impact on a company.

a) "There is a tension between granularity and materiality. Intangibles are important so would expect a higher level of granularity in the disclosures". (Standard Setter)

b) "Users don't want to be overwhelmed with irrelevant information. They want to see the core information through the eyes of management". (Investor)

4.101 Stakeholders were asked how increased granularity/disclosures could be balanced with concerns about information overload. They commented that, for intangibles, qualitative factors are more important than quantitative ones. These qualitative factors are likely to be derived from the relationship between the intangible item and the business model.

4.102 A preparer felt that the IASB might need to provide more guidance on intangibles and materiality. "Materiality is just a concept. The standard could specify disclosures that are considered material by nature. The important issue is identifying what users think is important".

4.103 An auditor commented that the work underway by the ISSB on materiality might also be relevant to intangibles, "Regarding materiality: there is extensive work on thinking about materiality and ESG is likely to be the most relevant to these discussions. The ISSB standards talk constantly about enterprise value. This makes materiality a forward-looking estimate. The profession is going to have to figure out how to manage materiality assessments. This will translate really well to intangibles".

4.104 An investor felt that the issue of materiality was a problem of application rather than definition. "Materiality isn't just a quantitative measure. The IASB definition is good, but people don't apply it right. The application of materiality is a big part of the problem. They leave it up to the auditors, rather than management taking the lead".

4.105 Intangibles by their nature raise a particular problem when considering materiality since items that may involve less cost can have a significant impact on value. As

one academic stated, “As for materiality, a company rebrand could be quite material and the impact of intangibles is outsized, data protection training is an example of something that could have an outsized impact”.

4.106 In this context some stakeholders expressed concerns about commercial sensitivity, but again stakeholders identified materiality as the overriding factor. As one user noted, “There is always a trade-off between efficient allocation of capital and commercial sensitivity. Materiality is the key but is not done well currently”.

4.107 When asked about the areas of concern with the current accounting for intangibles a regulator noted that while, currently, intangibles are not a highly recurrent area of concern, when questions do arise they can include failure to provide material information on intangibles.

4.108 The issue of intangibles and materiality is perhaps best summarised by an investor who said:

> “Less is not better, more is not better, better is better”.

Stakeholders’ suggestions - in summary

4.109 Stakeholders have identified a range of ways in which the accounting for intangibles could be enhanced.

4.110 Enhanced disclosure was almost universally supported when it comes to improving the accounting for intangibles, whether or not in conjunction with enhanced recognition. Some stakeholders also supported the idea of exploring enhanced recognition for some intangibles. In terms of measurement, some stakeholders were open to consider a fair value model if market conditions support reliable measurement.

4.111 A key message to emerge from users is that they want more disclosure on intangibles to help them better understand companies’ investment in intangibles and their performance. Investors appear not to put significant weight on the recognition of intangibles in the balance sheet, as they are not convinced it will always give reliable information. They would rather have detailed disclosures of expenditure on such items to allow them to make their own assessment of the potential value that may be created.

4.112 Materiality will have to be carefully considered, and simple quantitative approaches are unlikely to be enough to give users the information they need.

5. Next Steps

5.1 This research report sets out results of work undertaken to understand the role played by intangibles in the UK economy and stakeholders' views about how companies should report their investment in intangibles in the financial statements. This report has focused on issues identified by stakeholders regarding the current accounting for intangibles, and possible enhancements. This is not meant to imply that the UKEB believes that there is a need for significant changes in the accounting for intangibles. Any future recommendations on the accounting for intangibles will be developed based on a range of evidence, research and outreach.

5.2 A key concern raised by stakeholders was the nature and extent of disclosure about intangibles. The UKEB is undertaking research that examines the disclosure on intangibles made by UK companies. It examines both the quantitative and qualitative information provided in the financial statements as well as information provided in the management commentary in annual reports. Preliminary results indicate that most annual reports include some information on intangibles, but that the extent of that disclosure is highly variable.

5.3 The research also examines the nature and value of intangibles acquired in a business combination versus those that are internally generated. This reflects another key theme that emerged from stakeholder interviews, the different accounting for intangibles under IFRS 3 *Business Combinations* and IAS 38 *Intangible Assets.*

5.4 The investors interviewed for this research highlighted a preference for a disclosure-based solution to the perceived deficiencies in the accounting for intangibles. The UKEB plans to survey users more extensively to develop a greater understanding of their current approach to utilising information on intangibles, concerns they have about the current accounting, and solutions they would see as most appropriate to meet their needs.

5.5 Further economic research is being carried forward in the intangibles quantitative report, and focuses on the following topics:

a) Providing more granular evidence on the prevalence of intangible assets, emphasising sectoral as well as size differences among IFRS reporters;

b) Providing empirical evidence on the "recognition gap" as well as the "measurement gap" on intangibles generated by current accounting practices under IFRS accounting standards;

c) strengthening the evidence about whether intangible assets are an important determinant of companies' financial and economic performance, with particular reference to the UK, where recent research is lacking.

5.6 Further research is needed to fully understand the changes required to the accounting for intangibles before any path forward is considered. The UKEB will continue to undertake proactive research on intangibles.

5.7 There also remain many other opportunities for further research on intangibles in the UK. The UKEB would encourage stakeholders to also consider undertaking relevant academic and professional research. All aspects of intangible reporting would be of interest, from the perspectives of both report preparers and users in the UK.

5.8 The evidence gathered in this, and other, research reports will be used to stimulate debate, engage with the IASB and other national standard-setters or regional organisations, with the aim of ultimately supporting the development of high-quality international accounting standards for use in the UK and internationally.

Appendix A: Glossary

Term	Description
ACCA	The Association of Chartered Certified Accountants
AI	Artificial Intelligence
AIM	Alternative Investment Market
AFIAG	UKEB's Accounting Firms and Institutes Advisory Group
BoE	Bank of England
Balance sheet	Statement of financial position
BEA	Bureau of Economic Analysis
CHS framework	The Corrado, Hulten and Sichel (2005 and 2006) Framework
Conceptual Framework (1989)	*Framework for the Preparation and presentation of Financial Statements* (1989)
Conceptual Framework (2018)	*Conceptual Framework for Financial Reporting* (2018)
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
E&E	Exploration and Evaluation
EFRAG	European Financial Reporting Advisory Group
ESG	Environmental, Social and Governance
FCA	The Financial Conduct Authority
FRC	The Financial Reporting Council

Term	Description
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
IAG	UKEB Investor Advisory Group
IAS 2	IAS 2 *Inventories*
IAS 9	IAS 9 *Research and Development Costs*
IAS 12	IAS 12 *Income Taxes*
IAS 32	IAS 32 *Financial Instruments: Presentation*
IAS 36	IAS 36 *Impairment of Assets*
IAS 38	IAS 38 *Intangible Assets*
IAS 39	IAS 39 *Financial Instruments: Recognition and Measurement*
IASB	International Accounting Standards Board
IFRS 3	IFRS 3 *Business Combinations*
IFRS 6	IFRS 6 *Exploration for and Evaluation of Mineral Resources*
IFRS 7	IFRS 7 *Financial Instruments: Disclosure*
IFRS 9	IFRS 9 *Financial Instruments*
IFRS 15	IFRS 15 *Revenue from Contracts with Customers*
IFRS 16	IFRS 16 *Leases*
IFRS 17	IFRS 17 *Insurance Contracts*

Term	Description
KPIs	Key Performance Indicators
ONS	The Office of National Statistics
PAG	UKEB's Preparers Advisory Group
PIM	Perpetual Inventory Method
PPE	Property, Plant and Equipment
R&D	Research and Development
SEC	U.S. Securities and Exchange Commission
UKEB	UK Endorsement Board

Appendix B: Research methodology

B1 This research is qualitative in nature. We conducted in-person or Microsoft Teams interviews with 35 stakeholders, using a semi-structured interview approach and approaching stakeholders of different types (preparers, users, auditors, academics) to obtain a diverse sample. Interviews lasted between 60 and 90 minutes. The interview questions drew from the accounting and economics literature on the topic and leveraged prior research work and expertise of those involved in the project.

B2 Semi-structured interviews are an interview type widely used in qualitative research. It involves guiding the interviewee through a set of previously written open questions, the order of which might or might not vary. Researchers can occasionally add questions if needed, but overall follow the interview structure. Semi-structured interviews are typically used when interviewers cannot access the interviewee more than once, and typically last between 30 and 60 minutes. For a concise reference, see Jamshed (2014) (link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194943/#ref6), and references therein.

B3 Interviews broadly covered the following topics:

a) Does the current accounting for intangibles work? What problems does the interviewee see with IAS 38?

b) Classification: does the current classification work? Are there intangible assets that are economically important, and should be recognised but currently don't appear on balance sheets?

c) Initial recognition: how to separate intangible expenses from investment? How to define control?

d) Subsequent measurement: what is the best model to account for intangibles?

e) Organic versus external growth: does the fact that intangibles are more easily recognised when purchased or in a business combination lead to a fair representation of the balance sheets of companies that grow internally?

f) Solutions: does IAS 38 need improvement or replacement? What solutions does the interviewee propose to improve IAS 38?

g) Economic consequences: are there unintended economic consequences springing from the current accounting practices, such as effects on companies' valuations, or incentives to companies' management to grow by acquisitions as opposed to organically?

B4 Following the tenets of qualitative research methods (and in particular, grounded theory), we aimed to obtain a diverse sample of interviewees, to enable us to obtain a variety of insights. We therefore decided to interview different stakeholder types involved in the production chain of financial statements at different stages. We drew up the list of potential interviewees in the following way:

a) The UKEB team conducted some initial research to identify stakeholder categories of interest;

b) A number of interviewees were secured using personal pre-existing contacts;

c) Several interviewees were contacted using cold calling/messaging;

d) Some interviewees were reached thanks to the suggestion of other interviewees (snowballing).

B5 Speaking directly with different types of stakeholders afforded the UKEB the opportunity to gain insight beyond what could be collected via a standard survey format. Particularly this allowed us to:

a) Understand the main problems related to the current accounting framework, and whether problems were perceived differently by different stakeholder types;

b) Identify solutions that can be adopted to improve the current accounting framework, using a balanced view that takes into account the needs of different types of UK stakeholders;

c) Take a multi-disciplinary approach to the issue, interviewing largely accountants, but also marketing/communication specialists, lawyers, economists, and statisticians.

B6 We collected observations until we reached 'theoretical saturation', that is, until it was evident that interviewing an additional investor was unlikely to generate any additional insights/themes (Aldiabat & Le Navenec, 2018; Charmaz, 2006). To encourage participation and frank discussion we committed to keeping responses anonymous. To analyse the data, we extracted common and divergent themes that emerged from the interviews using thematic analysis (Bryman, 2016, pages 586-9). We adopted this approach rather than one based on grounded theory (Charmaz, 2006; Strauss & Corbin, 1991; Thornberg & Charmaz, 2014), as the purpose of the research is not to create new theory.

B7 After conducting a preliminary analysis of the qualitative data emerging from the interviews, the team decided to cross-validate the main themes emerging by engaging with two groups of stakeholders in a roundtable fashion. The secretariat briefly introduced the research to two different UKEB Advisory Groups, the Preparers Advisory Group (PAG), and the Accounting Firms and Institutes Advisory Group (AFIAG), and then asked them two main questions: what is wrong with IAS 38 and what could be done to improve it. The analysis was conducted to

test the relevance of the themes that had already emerged and explore the existence of themes not identified during the interviews. The UKEB liaised with a third advisory group, the Investors' Advisory Group (IAG) to further test investors' opinions about a theme emerged in the interviews (more granular disclosures combined with or in lieu of enhanced recognition) as it was felt that the interviews did not cover that aspect fully.

Appendix C: Additional Economic Literature

C1 This appendix reviews additional economics literature in support of some of the main arguments of the Economics Section. Headers refer to the headers of Section 2 in the main text.

Intangible capital: features and economic consequences for companies

C2 This appendix to the report provides general economic background for the concept of intangible capital.

C3 As noted in the report, the prevalence of intangible capital is well-correlated with the rise of the knowledge economy. Interestingly, Powell and Snellman (2004) provide a definition of the knowledge economy that makes explicit reference to intangible capital: "production based on knowledge-intensive activities that contribute to an accelerated pace of technological and scientific advance as well as equally rapid obsolescence. The key components of a knowledge economy include a greater reliance on intellectual capabilities than on physical inputs or natural resources, combined with efforts to integrate improvements in every stage of the production process, from the R&D lab to the factory floor to the interface with customers. *These changes are reflected in the increasing relative share of the gross domestic product that is attributable to intangible capital*" (emphasis added).

Intangibles in Macroeconomics

C4 This section of the report summarises how intangible capital is treated in macroeconomics, largely making reference to the framework developed by Currado, Hulten and Sichel (2005, 2006; referred to as the CHS framework).

C5 According to the CHS framework, intangible items can be divided into three categories:

a) Computerised information: mainly computer software;

b) Innovative property: broadly corresponding to research and development;

c) Economic competencies: comprising brand equity, training and human capital, and organisational capital.

C6 Goodridge, Haskel and co-authors have worked extensively on the UK productivity puzzle, and have investigated whether "missing intangibles" could be the cause of the problem. In a recent paper (Goodridge and Haskel, 2022) the authors estimate that in 2019 the difference between what productivity was and what it would have been if it had followed the pre-crisis trend was 28 percentage points, of which roughly 5% could be "explained" by unaccounted intangible assets (i.e., productivity was measured to be lower than it actually was because of unaccounted intangibles). These results confirm previous estimations (Goodridge, Haskel and Wallis, 2013), which suggested that, using the authors' own words, "unmeasured intangibles are part of the explanation of the productivity puzzle", though not all of it.

C7 Some UK-focused contributions have extended the CHS framework to account for additional types of intangible capital. For example, Corrado, O'Mahoney and Samek (2021, CHS) develop a model to incorporate formal education/schooling into the national production function, thus treating national spending in education as an investment rather than as consumption (as it is currently accounted for). O'Mahoney and Samek (2021) develop a framework to incorporate health into human capital stocks at a national level. The authors show that, on average, poor health reduces human capital stock by 12% in the United Kingdom.

C8 It must also be noted that the CHS framework has been applied to a number of countries. Outside of the United Kingdom, Corrado, Haskel, Ionni, Jona-Lasinio, Mas and O'Mahoney (2017) apply the CHS framework to EU countries, finding that in the EU14 over the 2000-2013 period the share of intangibles over GDP was lower than that of tangibles: 7.2% against 9.4%. The authors however found that northern and non-German speaking continental countries were characterised by higher investment in intangible capital than Mediterranean and German-speaking continental countries. Elnasri and Fox (2017) apply the CHS framework to Australia, showing that in 2015 intangible investment was ASD 82 billion, well-below the ASD 227 billion invested in tangible capital. This suggests that, as expected, reliance on intangible capital tends to differ between countries.

Intangibles in microeconomics

C9 This section of the report summarises how intangible capital is treated in microeconomics, focusing largely on the relation between intangible capital and companies' performance.

C10 More detail is herein provided on contributions focusing on countries other than the UK. These results bolster the main finding that intangible capital is positively associated with productivity.

C11 Villalonga (2004) discusses how intangible assets can affect long-term competitive advantage, measured as profits persistence. Using the US listed companies' data, the author finds that intangible capital is a determinant of a firm's long term profitability and henceforth the source of competitive advantage

in most industries. However their results show that intangible assets can also "lock in" competitive disadvantage.

a) Montresor and Vezzani (2014) study the impact of intangible assets on innovation at a firm level. Using pan-European firm-level data for the year 2013, the authors find that internally generated intangibles explain firm-level innovation more than externally generated intangibles. In addition, “technological intangibles” (whether internally generated or not) also have a significant influence on companies’ ability to innovate.

b) Di Cintio, Ghosh and Grassi (2017) look at the relation between investment in R&D, firms’ export and firms’ growth using a sample of Italian SMEs. Using a convincing empirical strategy, the authors show that R&D is associated with both more exports and more growth, though firms that export tend to grow less as a result of R&D. The authors did not find any direct effect of exports on companies’ growth.

c) Roth, Sen and Rammer (2021), focusing on Germany, find a positive relationship between intangible capital and firm-level productivity, which stronger magnitudes for services firms (as opposed to manufacturing).

d) Crass and Peters (2014) also focus on Germany. Following the framework introduced in Corrado et al. (2005), their paper differentiates intangible capital into Innovative capital (IC), Branding capital (BC), Human capital (HC) and Organisational capital (OC). The authors find that the R&D component of IC to be strongly and positively related to firms’ total factor productivity, as well as all components of BC (marketing, trademarks) and HC (training, high skilled labour). The authors find mixed results with respect to OC.

e) Bontempi and Mairesse (2015) study the contribution of intangible capital to production, using Italian firm-level data. They find that intangible capital positively and strongly contributes to output, and the result is robust to the estimation of different production functions. They break down intangible capital into Intellectual capital (IK) and Customer capital (CK) and find that the marginal productivity of CK is higher than that of IK.

f) Takizawa (2015) studies the effect of intangibles play in labour productivity growth in the US and Japan. They find that intangibles are positively related to labour productivity growth in the US, but not in Japan, though investment in both tangible and intangible assets was found to have a positive relation with labour productivity growth in both countries.

g) Hsiao, Lo, Lin and Lin (2021) study the determinants of intangible investment in Taiwan, as well as the relation between intangibles and productivity.

New intangibles (including cryptoassets)

C12 This section of the report discusses the emergence of “new intangibles”, that is asset types that possess the characteristics of intangible capital, have risen to prominence in recent years, are currently drivers of companies’ value and performance, but would by and large remain unrecognised on companies’ balance sheets because of the recognition criteria set by IAS 38.

C13 On digital capital, Tambe, Hitt, Rock and Brynjolfsson (2020) estimate prevalence and impact on productivity of “digital capital”, understood as “factors of production that are complementary to recorded investments in IT assets (such as hardware and software), but that are not otherwise recorded on a firm’s balance sheet”. The authors estimate the prevalence of digital capital among US publicly listed companies, showing that this has increased dramatically over the last 20 years, largely because of an actual accumulation of capital (the authors estimate that the price of digital capital has roughly remained constant after the dot-com bubble, so growth cannot be attributed to prices).

C14 Cryptocurrencies are discussed in the report as an IFRIC agenda decision prescribes that cryptocurrency holdings are accounted for as intangible assets. Because of the inherent risks associated with crytpocurrencies, there have been arguments in favour of regulating this market in the academic literature (see the work of Joseph Lee on the topic, such as Lee, 2022, Lee, 2020, Lee, 2018) as well as recent advances in this direction, for example in the United States, and, as of February 2023, the United Kingdom. See also Aquilina, Frost and Schrimpf (2023a, 2023b);

Appendix D: Participants

D1 Participants were interviewed as individuals (rather than representatives of specific companies or organisations). They were identified on the basis of their primary background, though many identified as coming with a range of experience.

D2 A high-level summary of the primary backgrounds of stakeholders interviewed can be found below:

Category	Number interviewed
User	13
Preparer	6
Auditor/Accountant	4
Standard Setter/Regulator	4
Academic	8
Total	**35**

D3 The following interviewees explicitly agreed to have their contribution to the report acknowledged: Janice Denoncourt; Peter Elwin; Charles Henderson; Joseph Lee; Suzanne Morsfield; Mary O'Mahony; Michael Stewart; Yannis Tsalavoutas; Peter Wells. A representative from the ONS was also among the interviewees.

D4 We would like to thank all the interviewees for their willingness to give their time to this research.

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