

May 23, 2025

Mr. Jackson Day
Financial Accounting Standards Board
801 Main Avenue
Norwalk, CT 06856-5116

File Reference No. 2024-ITC200
Re: Recognition of Intangibles

Dear Mr. Day:

Thank you for this opportunity to comment on the Invitation to Comment – *Recognition of Intangibles* (File Reference No. 2024-ITC200 and hereafter the “ITC”). The Financial Reporting Policy Committee of the American Accounting Association’s Financial Accounting and Reporting Section, charged with responding to requests for comment from standard setters on issues related to financial reporting, has asked us to respond to the ITC. The comments in this letter represent our views and not those of the American Accounting Association or the Financial Accounting and Reporting Section.

The Financial Accounting Standards Board (FASB) issued the ITC to solicit feedback from stakeholders regarding whether the FASB should undertake a project on intangibles and, if so, how the FASB should approach the topic.

Overall Evaluation

We believe that Generally Accepted Accounting Principles (GAAP) financial statements do not currently provide sufficient information regarding intangibles. However, we do not believe that the solution lies in additional capitalization of intangibles. Research is mixed on the benefits of additional capitalization, and even if we selectively apply the research in favor of capitalization, there is no consensus regarding how to operationalize this capitalization. Therefore, we recommend that the FASB address the issue of intangibles by requiring additional disclosures. Specifically, we recommend that the FASB consider requiring the following disclosures:

- Current year intangible-related expenditure
- Supplemental disclosures:
 - Disaggregation by type of expense
 - Disaggregation by project
 - Outputs of intangible-related activities
- Disaggregation between internally developed and externally developed intangibles

These recommendations are supported, in varying degrees, by academic research and aim to enhance transparency and provide decision-useful information to financial statement users.

Response to Specific Questions in the Exposure Draft

We elaborate on our views by responding to several specific questions posed in the ITC (ITC questions are presented in italics). We limit our responses to the questions for which we believe academic research can provide the most relevant input.

Question 1: Please describe what type of stakeholder you (or your organization) are from the list below, including a discussion of your background and what your point of view is when responding to this ITC:

- a. *Academic*
- b. *Investor, other allocator of capital, or other financial statement user, such as:*
 - 1. *Equity analyst: buy side*
 - 2. *Equity analyst: sell side*
 - 3. *Credit-rating agency analyst*
 - 4. *Fixed-income analyst*
 - 5. *Accounting analyst*
 - 6. *Quantitative analyst*
 - 7. *Portfolio manager*
 - 8. *Private equity*
 - 9. *Individual investor*
 - 10. *Lender*
 - 11. *Long-only focus*
 - 12. *Long/short focus*
 - 13. *Other.*
- c. *Practitioner/auditor*
- d. *Not-for-profit organization preparer*
- e. *Private company preparer*
- f. *Public company preparer*
- g. *Regulator*
- h. *Standard setter*
- i. *Other.*

We are academics representing the Financial Reporting Policy Committee, a committee of the Financial Accounting and Reporting Section of the American Accounting Association. We are tasked with providing feedback to the FASB on the ITC that is grounded in relevant academic research.

Question 2: Is there a pervasive need to improve GAAP related to the accounting for and disclosure of intangibles (that is, is there a case for change)? Please explain your response.

We believe that there is a significant need to improve GAAP related to intangibles, particularly their disclosure. In general, financial statements provide little information regarding intangibles, especially those developed internally. Intangibles increasingly contribute to entities' value (Barth, Li, and McClure 2023; Barker, Lennard, Penman, and Teixeira 2022; Srivastava 2014), and the relevance of intangible-related items that are recognized or disclosed in the financial statements, such as capitalized intangibles and research and development (R&D) expense, has increased over time while earnings relevance has declined (Barth et al. 2023).

In our responses to Questions 13 and 15, we discuss research supporting our opinion on the need to improve GAAP. Briefly, research indicates that the management of intangible-intensive entities relies more on supplemental disclosures (i.e., outside the financial statements) to inform investors (Gelb 2002), and investors in these entities increasingly depend on external information sources (Amir, Lev, and Sougiannis 2003). Furthermore, analysts and investors often fail to fully recognize or correctly value intangibles (Amir et al. 2003; Banker, Huang, Natarajan, and Zhao 2019; Enache and Srivastava 2018; Eberhart, Maxwell, and Siddique 2004), which can affect investment decisions and market efficiency. Overall, this research suggests that additional information in financial statements regarding intangibles would improve their decision-usefulness.

Question 3: If the Board were to pursue a project on intangibles, how should the Board address the topic? For each type of intangible, or groups of intangibles, that should be separately addressed, please explain your response, including the following:

- a. A description of the type(s) of intangibles or groups of intangibles (including an explanation of why those intangibles should be addressed in a group).*
- b. The objective of the potential project.*
- c. The potential solution(s).*
- d. The type(s) of intangibles, or groups of intangibles, the potential solution should apply to. For example, whether it is a narrow potential solution for a specific intangible item or a potential solution that could broadly apply to a group of intangible items.*
- e. The expected benefits and expected costs of the potential solution(s).*

We propose that the FASB pursue a project on intangibles, with a focus on additional disclosures. We detail such additional disclosures in our response to Questions 13 and 15. Importantly, we do not recommend developing additional capitalization guidance for reasons enumerated in our response to Questions 5 and 7.

Question 5: Should the accounting for research costs be the same as or different from the accounting for development costs? For example, would it be appropriate to expense all research costs as incurred and recognize all development costs as assets? If so, how would an entity

determine when research ends and development begins for certain common intangibles (for example, software- and pharmaceutical-related intangibles)? Would changing the accounting for development costs in this way lead to material amounts being capitalized? Please explain your response.

See our response to Question 7.

Question 7: Should the Board consider recognizing other internally developed intangibles when either (a) management has committed to funding the project and it is probable that the project will be completed and will perform the function intended or (b) technological feasibility has been established? If so, for which intangibles? Would this result in decision-useful information? Would these criteria also be helpful in determining whether an intangible should be recognized as an asset or expensed when acquired in a business combination or in an asset acquisition? Please explain your response.

We answer Questions 5 and 7 together because successful R&D leads to internally developed intangibles. The two topics are intertwined, as is the corresponding accounting research. This issue is not new. The capitalization of R&D has largely been consistent since 1974 with Statement of Financial Accounting Standards (SFAS) No. 2 (FASB 1974). SFAS No. 86 (FASB 1985), issued thereafter, was specific to the software industry.

The central focus of both questions is whether the FASB should increase the capitalization of internally developed intangibles, and if so, what approach should be used. For R&D (Question 5), the IFRS approach is posited as an option, and in the broader internally developed intangible asset space (Question 7), the approach used to capitalize software development costs is put forth. The motivation to consider additional capitalization is evident from the work of many academics who point out that the changing nature of business has increased the importance of R&D and internally developed intangibles to investors (e.g., Barth et al. 2023; Lev and Gu 2016). But what information do investors need, and would allowing or requiring additional capitalization satisfy investors' information needs?

On the one hand, some studies suggest that increased capitalization of internally developed intangibles may provide important information to capital market participants. For example, in response to a proposal to eliminate any capitalization of R&D, Aboody and Lev (1998) show how capitalized software development costs are significantly related to stock returns, prices, and future earnings. They conclude that contrary to the aforementioned proposal, capitalized software development does not decrease earnings quality. Even before any R&D capitalization in GAAP, prior research supported capitalization by showing a link between R&D and market value (Hirschey and Weygandt 1985). Bublitz and Ettredge (1989) document how R&D expenses are more long lived than advertising expenses, suggesting R&D should be capitalized. Lev and Zarowin (1999) argue that while individual R&D projects may be uncertain, most public entities

have portfolios of projects for which the combined level of uncertainty is relatively low, supporting capitalization. Lev and Sougiannis (1996) use reported R&D expense amounts to construct pro forma R&D assets, which they show are significantly related to stock price. Similarly, Healy, Myers, and Howe (2002) conclude that a simple capitalization model based on “successful efforts” for the pharmaceutical industry offers a stronger relation between accounting information and economic values than the immediate expensing of R&D outlays. In an international setting, Oswald, Simpson, and Zarowin (2022) find that UK entities switching from the expensing to the capitalization model increase their R&D expenditures. De Waegenaere, Sansing, and Wielhouwer (2017, 1524), using an analytical model, suggest that “if the firms are located in different countries with different mandated accounting policies, the firm in the country with mandatory capitalization has a competitive advantage over its rival.”

On the other hand, some academic research argues against capitalization. Penman (2023) supports expensing, suggesting that internally generated intangibles will make both balance sheets and income statements less informative if capitalized. Similarly, Kothari, Laguerre, and Leone (2002) show that R&D investments generate future benefits that are more uncertain than those of capital assets, such as property, plant, and equipment. Seybert (2010) experimentally identifies an unintended consequence of capitalization: overinvestment in R&D projects. Moreover, Dargenidou, Jackson, Tsalavoutas, and Tsoligkas (2021) indicate that the information value for expensed and capitalized R&D is the same for UK companies post-IFRS. The results hold regardless of the quality of corporate governance or the strength of earnings management incentives. Examining a set of German entities, Dinh, Kang, and Schultze (2016) point out that the decision of companies to capitalize R&D is strongly related to benchmark beating and, thus, earnings management.

Yet, some studies suggest that giving an entity the choice between capitalization and expensing provides more value than requiring capitalization or expensing. For example, Ahmed and Falk (2006) show in an Australian setting how value relevance is highest when managers have discretion in whether to capitalize or expense rather than a requirement to always capitalize or expense. Similarly, Wyatt’s (2005) evidence agrees that limiting managers’ capitalizing/expensing choices reduces information quality for investors.

For the FASB’s purposes, the literature offers two key counterpoints against capitalization. First, studies highlight important disclosure/information beyond mere capitalization that investors value. We provide more evidence on this point in our response to Questions 13 and 15. Second, investors can use existing informational channels to construct their own pro forma incremental capitalization of internally developed intangibles. Barth and Gee (2024, 6) capture well the breadth of investors’ information needs in this realm: “Specifically, if a firm’s cash flows depend on how it innovates, then investors need information about the novelty, nonrivalry, and excludability of what results from the firm’s activities and potentially how these attributes interact.” Mere capitalization is unlikely to satisfy such needs.

Even if capitalization was sufficient, investors can and do proactively capitalize on their own. Despite advocating for increased capitalization in standard setting, some studies (Lev and Sougiannis 1996; Healy et al. 2002) illustrate that investors can proactively capitalize on their own, at least partially. Academics have long argued that investors can value internally developed intangibles without capitalization using income statement-related items (Barker et al. 2022; Penman 2009; Basu and Waymire 2008; Penman 2023). More recently, Ewens, Peters, and Wang (2025) and Iqbal, Rajgopal, Srivastava, and Zhao (2025) independently craft new ways to proactively estimate internally developed intangibles using existing information. Further, a survey by Mazzi, Slack, Tsalavoutas, and Tsoligkas (2019) provides direct field evidence that investors claim to proactively capitalize intangibles. In proactively capitalizing, investors can rely on information inside or outside the financial statements to form their own model of intangibles. Aboody and Lev (2000) document how investors use (private) information about planned changes in R&D budgets. Edmans (2011) shows how human capital information (e.g., employee satisfaction surveys) relates to long-term entity value, even if not initially fully impounded in stock price.

Overall, our read of the research indicates that additional capitalization guidance is both unnecessary and insufficient. It is unnecessary because investors can already model intangibles with existing information. It is insufficient because additional information that investors need is more likely to come from disclosure rather than recognition - see our response to Questions 13 and 15 for more on this. Thus, it is a moot point about where the exact line in the sand is to indicate what should be capitalized versus expensed. Even if we selectively read only the academic papers arguing for increased capitalization, there is no consensus regarding how the FASB should require capitalization.

Additionally, we note that it is unclear how the two criteria considered by Question 7 are consistent with the asset recognition criteria in the Conceptual Framework. The two criteria in Question 7 relate to capitalizing based on (a) management's commitment and (b) technological feasibility. The asset recognition criteria in the Conceptual Framework relate to (1) meeting the definition of an asset, (2) being measurable with a relevant measurement system, and (3) faithful representation. If the FASB proceeds with either of the criteria in Question 7, we suggest that the FASB reconcile any new criteria with the existing criteria in the Conceptual Framework since it is not immediately clear how management's commitment or technological feasibility contribute to meeting the definition of an asset, being measurable with a relevant measurement attribute, or faithful representation.

Question 8: Should the Board consider aligning the recognition guidance for intangibles (a) acquired as part of a business combination, (b) acquired in an asset acquisition, (c) that are internally developed, or (d) newly developed criteria? If so, how should the guidance be aligned? Should the recognition guidance be aligned for all intangibles, including those with specific

industry based guidance, or only certain categories? Would such an alignment result in decision-useful information? Please explain your response. If a new model is recommended, please provide details on that model, including how it would be an improvement to current GAAP and achieve consistent recognition of Intangibles.

As noted in the ITC, there are a number of differences in the recognition guidance for intangibles acquired in a business combination, intangibles acquired in an asset acquisition, and intangibles developed internally. In our view, this raises two distinct questions regarding potential alignment:

1. Should the accounting for internally developed intangibles be aligned with that for acquired intangibles?
2. Within acquired intangibles, should the accounting for those acquired in a business combination be aligned with those acquired in an asset acquisition?

We address both questions in our response.

We begin by considering the FASB's Conceptual Framework, which defines an asset as having two main characteristics: it represents a present right, and that right is to an economic benefit (FASB 2024b). Notably, the definition of an asset does not depend on how the asset originated. Therefore, both acquired and internally generated intangibles meet the definition of an asset.

For an asset to be recognized on the balance sheet, three criteria must be met:

1. It must meet the definition of an asset
2. It must be measurable with a relevant measurement system
3. It must be capable of being depicted and measured with faithful representation (FASB 2024b).

Externally acquired intangibles, whether acquired in a business combination or an asset acquisition, are capitalized on the balance sheet and initially measured at entry price, which is readily observable from an arm's-length transaction. These intangibles clearly meet the recognition criteria. Accordingly, we see no conceptual justification for maintaining divergent accounting treatments for acquired intangibles based solely on the nature of the acquisition (i.e., business combination or asset acquisition).

Turning to the potential alignment between acquired and internally generated intangibles, we, as co-authors, have differing views on whether the recognition criteria in the Conceptual Framework support alignment. Capitalizing internally generated intangible assets could require tracking all costs incurred from the inception of a project. Thus, measuring internally developed intangibles carries inherent complexities and costs compared to measuring externally acquired intangibles. Practical challenges include the difficulty of identifying and aggregating costs from inception and

the implications of capitalizing prior-period expenses. These challenges can lead one to question whether internally developed intangibles can be measured with a relevant measurement system and depicted with faithful representation. However, the fact that measurement may be more complex and/or costly does not, in itself, preclude recognition. GAAP already permits capitalization of self-constructed assets and allows for estimation when actual amounts are unavailable. Thus, we hold mixed views on whether the Conceptual Framework supports aligning the accounting for acquired and internally developed intangibles.

In addition to considering the Conceptual Framework, we also consider academic research on the topic of alignment. In general, research suggests that investors are not overly concerned about the specific accounting treatment of intangibles. In a study on the treatment of R&D costs under IAS 38, Mazzi et al. (2019) find that investors tend to focus more on the overall company R&D spending but less on the accounting treatment. Clem, Cowan, and Jeffrey (2004) study the market reaction during the FASB's deliberations on the potential changes to the in-process R&D (IPR&D) accounting. They find that the announcement of the proposal to capitalize IPR&D generated no significant market reaction. However, the announcement that the FASB planned to defer the rule was associated with a positive market reaction. The authors conclude that investors were more concerned about the increase in regulation and less about the reliability of accounting estimates. Chung, Hillegeist, Park, and Wynn (2019) find no significant changes in information asymmetry after the adoption of SFAS 141R, which allowed acquirers to start capitalizing IPR&D. Collectively, this stream of research examines capitalizing versus expensing R&D and finds that investors are not overly concerned about the specific accounting treatment.

Aligning recognition guidance for internally developed intangibles with externally acquired intangibles would necessitate capitalization criteria, as addressed by Questions 5 and 7 of this ITC. As we note in our response to these questions, we do not recommend developing additional capitalization guidance. Instead, we recommend additional disclosures as detailed in our response to Questions 13 and 15 of the ITC.

The FASB could consider aligning recognition guidance for externally acquired intangibles other than goodwill. There is a general lack of research comparing capitalized intangibles by mode of origination and evaluating the benefits of aligning the recognition criteria for these assets. However, we can infer from the research noted above that investors would not be overly concerned with differences in the rules for capitalized intangibles, whether acquired in a business combination or an asset acquisition. While preparers and auditors would likely benefit from this simplification of the guidance, it is unclear whether aligning the accounting for externally acquired intangibles would benefit investors.

Question 12: If the Board were to address intangibles, how should the FASB consider international guidance and research on recognition of intangibles by international standard setters or advisory groups? Please explain your response, including which specific international guidance (or

research) should be considered and whether international guidance as applied results in substantively different accounting outcomes than GAAP (for example, whether pharmaceutical companies capitalize material amounts of development costs under IAS 38 versus entities that apply GAAP).

Under International Financial Reporting Standards (IFRS), the reporting of intangibles is governed by International Accounting Standard (IAS) 38 - Intangible Assets. IAS 38 was adopted by the International Accounting Standards Board (IASB) in 2001 and amended in 2004 and 2014 (IFRS Foundation 2021). For internally generated intangibles, IFRS differentiates the accounting treatment of research costs from that of development costs. Similar to US GAAP, research costs are expensed when incurred. However, unlike US GAAP, where development costs are generally expensed (except in specific industries such as software), IFRS requires capitalizing development costs if six criteria are met.¹

The FASB should consider IFRS guidance and related research when deliberating any potential changes to the accounting and disclosure of intangibles due to the widespread use of IFRS and the insights IFRS research could provide into the capitalization of development expenses. IFRS and US GAAP are the two most used sets of high-quality reporting standards around the world, with more than 140 countries having adopted IFRS and more than 500 foreign entities (with a worldwide market capitalization of \$7+ trillion) preparing their financial statements under IFRS in the US.² Altamuro, Chen, and Li (2025) suggest that US GAAP-focused (IFRS-focused) analysts are more likely to increase their forecasting for IFRS (US GAAP) entities under the IFRS-US GAAP convergence. The comparability across jurisdictions decreases as accounting for R&D costs varies considerably globally (Khadaroo and Shaikh 2003). Lev (2019) points to the conservative treatment of intangibles under US GAAP as one of the main reasons for the decrease in the number of IPOs in the US compared with other countries.

However, IFRS-related research provides evidence of the consequences of requiring the capitalization of development costs with mixed results. Some studies (e.g., Oswald et al. 2022; De Waegenare et al. 2017) suggest that mandatory capitalization for development costs under IFRS provides better information content and brings more benefits. Conversely, other studies (e.g., Dargenidou et al. 2021; Dinh et al. 2016) find little benefit in development cost capitalization under IFRS.

Moreover, prior research directly compares IFRS and US GAAP in terms of R&D treatment and generally supports both the benefits and costs of capitalization. Mazzi, Slack, Tsalavoutas, and

¹ In April 2024, the IASB embarked on a research project addressing possible improvements to the accounting treatment of intangibles. The IASB launched two surveys, one for investors and another for companies and other stakeholders, to seek comments until November 30, 2024 (IAS Plus 2024). The survey results were discussed at an IASB meeting in February 2025.

² <https://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/view-jurisdiction/united-states/>

Tsoligkas (2022) interviewed buy-side and sell-side equity analysts mainly located in London. The interviewees were more supportive of the IFRS than the US GAAP model and found the information in capitalizing development costs more useful for their decision-making. Chen, Gavigous, and Lev (2017) compare the R&D practices of Israeli entities using IFRS with those using US GAAP. They document a significant externality of IFRS development cost capitalization. Specifically, R&D-capitalizing IFRS entities voluntarily disclose more value-relevant forward-looking information on product pipeline development than R&D-expensing US-GAAP entities. On the other hand, Chen et al. (2017) suggest that the higher competitive costs seem to deter more disclosure.

As the FASB considers IFRS guidance and related research, it should also take into account factors that highlight why US GAAP may differ from IFRS. First, the six criteria for capitalizing development costs introduce significant subjectivity into financial reporting. Kothari, Ramanna, and Skinner (2010) argue that the rule to capitalize development costs under IFRS, including technical feasibility, is more subjective and requires information that is usually only known to managers, compared to the expensing rule under US GAAP, which aligns more with the efficient contracting view.

Second, the industry composition of IFRS entities can differ from that of US entities (Barth, Landsman, Lang, and Williams 2012), which may explain the distinct accounting treatment of particular intangibles across industries. Iqbal et al. (2025) provide a flexible model to allow the estimation of capitalization of intangibles to differ across industries and time, supporting the importance of considering industry composition in capitalization versus expensing decisions. As the US has more emerging and newly formed intangible-intensive entities than other countries (Lev 2019) and the separate carve-out of the software industry exists in US GAAP, more research is needed on capitalization versus expensing for various US industries, such as the pharmaceutical industry.

Third, the US tends to have higher litigation costs than the rest of the world. Prior literature documents higher audit fees in the US, especially for companies using the IFRS, which require more managerial judgment (Bronson, Ghosh, and Hogan 2017; Chen and Khurana 2025). Additionally, the capitalization of intangibles, including R&D expenditures, involves significant managerial judgment, which can increase audit risk. Kim (2024) reports that when the US Public Company Accounting Oversight Board (PCAOB) cites auditors for insufficient procedures in auditing intangibles, clients exhibit a reduced use of external mergers and acquisitions to invest in corporate innovation. Hence, mandating the capitalization of intangibles in the US may have more unintended consequences than in other jurisdictions.

Overall, although international guidance should be considered, the subjectivity under IFRS, the industry composition, and the litigation environment in the US call for more research. Such

research will help us better understand the consequences of recognizing more intangibles in the balance sheet within US GAAP.

Although we do not advocate for capitalization, we propose more disclosure. Survey research suggests that enhancing disclosure rather than aligning accounting treatments may be a more effective approach to improving comparability between jurisdictions. Nixon (1997) surveys UK senior accountants of companies conducting over 70 percent of the R&D in this jurisdiction regarding the differences in accounting for R&D expenditures between the UK, the European Union, and the US. He finds that survey respondents view the disclosure related to R&D expenditures as more important than their accounting treatment and do not consider presentation on the face of the financial statements a primary channel to communicate R&D-related information. Hence, more transparent disclosure would be a good step towards creating comparability between US GAAP and IFRS while keeping in mind the uniqueness of the US institutional environment.

Question 13: Investors—Do current disclosure requirements related to intangibles recognized as assets provide you with decision-useful information? If not, what information currently provided is not decision useful or what additional information is needed? Please explain your response, including (a) identifying the information currently provided that is not decision useful and (b) additional information that you need and how and when that information would affect your capital allocation decisions and whether it is relevant for all or a subset of intangible assets.

See our response to Question 15.

Question 15: Investors—Do current disclosure requirements related to R&D costs or other expensed intangibles provide you with decision-useful information? If not, what information currently provided is not decision useful or what additional information would be decision useful? Please explain your response, including (a) identifying the information currently provided that is not decision useful and (b) additional information that should be disclosed, how and when that information would affect your capital allocation decisions, and whether that information would be relevant for all or a subset of expensed intangibles.

We answer Questions 13 and 15 together. Both questions deal with current disclosure requirements and identify additional disclosure requirements. Due to data availability, much of the research in this area deals with R&D disclosure. However, the concepts regarding the benefits of disclosure and the types of disclosure beneficial to financial statement users are similar across multiple intangibles, regardless of whether they are capitalized or expensed.

Research generally suggests that financial statements do not provide sufficient information regarding intangibles. Intangible-intensive entities, as indicated by higher R&D and advertising expenditures, are more likely to emphasize supplementary disclosures, such as voluntary

publications and investor relations activities, to provide additional information to investors (Gelb 2002). These results suggest that the management of these entities perceive standard accounting disclosures as relatively ineffective for communicating with investors. It is also important to note that these supplementary disclosures are not audited and, therefore, are not perfect substitutes.

With a lack of disclosure of estimated expenses, Enache and Srivastava (2018) develop their own estimated measure. Specifically, they split selling, general, and administrative (SG&A) expenses, excluding R&D and advertising, into two components: maintenance and investment. The investment component of SG&A represents an estimate of intangible expenditures other than R&D and advertising. They find that this estimate of intangible expenditures is valuable in forecasting future earnings and returns. Additionally, they find that an investment strategy based on this estimate earns abnormal returns of 2.4% to 2.9%, suggesting that investors do not fully understand the amounts or the benefits of these intangible expenditures. Similarly, King, Linsmeier, and Wangerin (2024) categorize intangibles based on their estimate of strategic importance. They document that strategically important intangibles have a more positive association with equity prices than non-strategically important intangibles, suggesting that additional disclosure regarding those strategically significant intangibles would be decision-useful to investors.

Due to the lack of detailed information in financial statements regarding intangibles, investors often rely more on external information sources, such as analysts' forecasts, when evaluating intangible-intensive entities (Amir et al. 2003). Research examining how analysts process information about intangibles shows that the intangible intensity of a company is associated with greater analyst effort (Barth, Kasznik, and McNichols 2002) and less consensus among analysts (Barron, Byard, Kile, and Riedl 2002). This suggests that analysts face higher processing costs and challenges when evaluating entities with significant intangibles. Additionally, analysts only partially incorporate internally developed intangibles into their forecasts, which can lead to incomplete or inaccurate assessments (Amir et al. 2003; Banker et al. 2019).

Furthermore, research provides evidence of mispricing associated with internally developed intangibles, indicating that the market may not fully recognize or value them correctly (Banker et al. 2019; Enache and Srivastava 2018; Eberhart et al. 2004). This mispricing can result in an undervaluation or overvaluation of entities with substantial intangibles, affecting investment decisions and market efficiency.

Collectively, this body of research suggests that more comprehensive disclosure of intangibles, particularly those developed internally, is needed. We acknowledge that any valuation of internally developed intangibles would likely be costly and fraught with measurement error. Therefore, we recommend that the FASB consider requiring entities to disclose amounts associated with the value of intangibles rather than providing a direct valuation. This approach would assist financial statement users in developing their own valuation estimates and making more informed decisions.

Specifically, we recommend that the FASB considers the following as it develops potential disclosure requirements for intangibles:

1. Disclosure of intangible-related expenditures
2. Supplemental disclosures
3. Disaggregation of disclosures between externally acquired and internally developed intangibles.

We discuss these recommendations and the supporting research below.

1. Disclosure of Intangible-Related Expenditures

Intangibles generally require expenditure. As Lev (2002, 133) notes, “Intangible assets do not come from thin air; they require large and sustained investment.” Consequently, expenditures are a crucial component in the development of most intangibles.

Research overwhelmingly shows that the disclosure of R&D expenses is relevant to financial statement users (Wyatt 2008), suggesting that disclosing intangible expenditures would provide information useful to investors as they develop their own valuations of intangibles. We acknowledge that one challenge in requiring disclosure of intangible expenditures relates to the difficulty in separately identifying these expenditures. Barker et al. (2022) note that expenditures for internally developed intangibles can be commingled with current operating expenses. As such, intangible expenditures are difficult to identify separately. However, to the extent that entities can identify intangible-related expenditures, we recommend that the FASB considers requiring such disclosure, similar to the disclosure of R&D expenses.

We provide two additional considerations for these disclosures: consultation with the Securities and Exchange Commission (SEC) and the effect of recent accounting pronouncements.

Researchers have compared entities' R&D disclosures with other publicly available information. Notably, Koh and Reeb (2015) examine the relationship between R&D expense disclosure and the number and significance of entities' patents. They find that the patent activity of non-disclosers is comparable to the bottom 90-95% (i.e., the majority) of entities that disclose R&D expenses. Additionally, Dionysiou, Slack, Tsalavoutas, and Tsoligkas (2023), in an international context, compare entities' presentation of R&D expenses or capitalized assets with the presence of key R&D-related terms elsewhere in their annual reports. They identify entities with no relevant R&D amounts presented in the financial statements as R&D inactive and conclude that many of these R&D inactive entities disclose R&D-related terms as frequently as R&D active entities. Overall, this research suggests that some entities fail to disclose expenditure information even when they have significant R&D activity. It is unclear whether this non-disclosure of R&D expense indicates

a lack of compliance or a need for additional guidance in this area. We encourage the FASB to coordinate with the SEC in this area as compliance and materiality guidance is the SEC's purview.

Finally, the recent updates to accounting standards on Segment Reporting (FASB 2023) and the Disaggregation of Income Statement Expenses (DISE) (FASB 2024a) are expected to enhance entities' disclosure of expenses. The DISE standard requires the portion of an expense attributable to amortization to be separately identified. In addition, the Segment Reporting standard requires disclosure of segment expenses that satisfy the Significant Expense Principle. Both of these new standards promote greater transparency and may lead to improved practices in identifying and disclosing intangible expenditures. As such, implementing these updates may result in new reporting practices, which could influence the FASB's perspective and the cost/benefit considerations of any new disclosure requirements regarding intangible-related expenditures.

2. Supplemental Disclosures

While disclosing intangible expenditures would provide relevant information to financial statement users, it also has several limitations. Most notably, Wyatt (2008) provides an extensive summary of intangible-related research. She concludes that disclosing aggregate intangible expenditures alone is not a reliable input for determining the timing and magnitude of future benefits. For example, in the case of R&D, these expenditures include costs for both successful and unsuccessful projects. Additionally, it can be challenging to map expenditures to identifiable intangibles (Barker et al. 2022). Further, research suggests that many entities engaged in considerable R&D activity do not report R&D expenses in their financial statements, ostensibly because they are deemed immaterial (e.g., Koh and Reeb 2015). Finally, Glaeser and Lang (2024) note that total R&D expense reflects both the price and the quantity of R&D activity. Demand shocks may increase the cost of R&D and the reported expense without increasing the actual quantity of R&D activity.

Given these limitations, research suggests that requiring additional disclosures beyond total expenditures would provide decision-useful information for financial statement users. We discuss three types of additional disclosures in detail. These supplemental disclosures could enhance transparency and allow for a more accurate assessment of an entity's intangibles and their potential future benefits.

2a. Disaggregation by type of expense:

In addition to disclosing the aggregate expenditures for an intangible, research suggests that breaking down these expenditures into different component types (e.g., compensation, depreciation, etc.) would be valuable for evaluating and predicting an entity's performance. The Financial Reporting Policy Committee's letter to the FASB (Convery et al. 2024) on its recent project on the Disaggregation of Income Statement Expenses (DISE) highlights academic research

suggesting that disaggregation of expenses can provide decision-useful information and enhance users' cash flow predictions. In that letter, the committee recommends disaggregating R&D expenses into the DISE components, which can help users better predict cash flows beyond the disclosure of total R&D expenses. Similarly, Lev (2019) expresses concern about the deficiency of disclosure for intangibles in general, especially the lack of disaggregated expenses for investors to determine the intangibles-related expenditures on employee training, technology, or maintenance. Given the challenges associated with predicting cash flows for intangibles and the benefits of expense disaggregation in improving cash flow predictions, we extend the Convery et al. (2024) recommendation to all intangibles. For any intangible expenditure for which the FASB chooses to require disclosure, we recommend that the expenditure be disaggregated in line with the DISE disclosure requirements.

As an example of how expense disaggregation can aid in the prediction of cash flows, consider labor expenses for R&D activities. Research suggests that R&D human capital is a key input into successful R&D efforts (Griliches 1979; Romer 1990) and that compensation incentives for R&D personnel are associated with innovation success (Lerner and Wulf 2007; Yanadori and Cui 2013). Accordingly, an understanding of the portion of R&D expense attributable to labor costs can provide insights into the probability of success.

2b. Disaggregation by Project

Mazzi et al. (2019) interview 16 participants, including preparers, auditors, and investors. Dionysiou et al. (2023) analyze R&D disclosures from 18,580 entities across 40 countries from 2017 through 2021. Both studies, within an international context, offer recommendations for additional R&D disclosures, including:

- Description of key projects
- Disaggregation of expenditures by project, with an indication of the current stage of development.
- Cumulative expenditures by project for active projects and those abandoned during the year.

These recommendations are generally based on the disaggregation of R&D by project. The benefits of disaggregation stem from the idea that when heterogeneous items have unique relationships to future cash flows, breaking down an aggregate amount into these heterogeneous items improves the ability to predict future cash flows. Individual R&D projects undoubtedly have differing relationships to future cash flows and vary in their stages of completion. Therefore, differentiating projects by their stage of development can help users predict the timing and uncertainty of future cash flows. Research identifies and examines voluntary disclosures indicating the stage of development by project. For example, Chen et al. (2017, 679), in an international context, find that IFRS entities that capitalize development costs also voluntarily disclose forward-

looking information on product pipeline development and its expected consequences, such as “general development information, the nature of the firm’s R&D activities, feasibility of project completion, assessment of future project benefits and product market information, developed product specifications, product target uses, future R&D plans, and innovation revenues.” This voluntary disclosure is value relevant beyond the mandated disclosure under IAS 38, implying that US GAAP could consider requiring project-related disclosures.

The recommendation related to cumulative expenditures by project is associated with the concept of sunk costs, which is widely accepted as part of the R&D process. While research does not provide a clear indication of the extent to which sunk costs inform the timing and uncertainty of future cash flows, the disclosure of cumulative expenditures by project can offer valuable information for evaluating management’s performance.

While these recommendations are specifically aimed at R&D, they generally apply to any intangible organized by project with differing stages of completion, such as software development and intellectual property development.

2c. Outputs from intangible-related activities

Overall, expenditure disclosures provide users with an indication of the resources and efforts invested in creating, developing, or enhancing intangibles. In other words, expenditures reflect an entity’s commitment to developing intangibles. In contrast, output metrics can provide insight into the effectiveness of these development activities. Research suggests that disclosing the outputs from intangible-related activities would provide decision-useful information incremental to expenditure data.

For example, patents are a prime example of an identifiable and measurable output from intangible-related activities, specifically R&D. Research finds that information regarding patents provides decision-useful information beyond total R&D expense. Specifically, Hirschey, Richardson, and Scholz (2001) document a stronger relation between R&D expense and market value for entities with more successful patents, as indicated by patent citation, median age of new patents, and the closeness of patents to leading-edge research. Beyhaghi, Khashabi, and Mohammadi (2023) find that more prompt patent disclosure improves the speed of stock price discovery and the accuracy of analyst forecasts. Ciftci and Zhou (2016) show that the disclosure of patents can improve the value relevance of financial statements for entities with intensive intangibles.

Wyatt (2008) discusses research related to other intangible outputs, which similarly shows that outputs are generally relevant to financial statement users. These outputs include trademarks, website traffic, and survey results. Many of the outputs studied in academic research are likely unsuitable for financial statement disclosure. To the extent that intangibles have outputs that can

be measured with faithful representation and are suitable for inclusion in financial statements, research suggests that this supplemental information would be decision-useful to financial statement users. However, we recognize that a fundamental limitation is the availability of identifiable, objective, and measurable outputs.

In addition to the availability of appropriate output measures, we acknowledge that intangible outputs are subject to manipulation. For example, regarding patent disclosures, Glaeser and Lang (2024) show that managers can exercise discretion over the timing and quality of their patent disclosures and can even avoid patent disclosure by protecting their innovations with trade secrecy. Glaeser, Michels, and Verrecchia (2020) find an association between managers' time horizons and patents. Specifically, they predict and find that managers will patent more per dollar of R&D spending when they have a short horizon.

3. Disaggregation of Disclosures Between Externally Acquired and Internally Developed Intangibles

As noted in the ITC, the current GAAP for intangibles varies depending on how they were acquired. This discrepancy makes it challenging to compare entities that grow organically (i.e., intangibles primarily developed internally) with those that grow through acquisition (i.e., intangibles primarily acquired externally). Much of our discussion in this section relates to internally developed intangibles. Requiring comparable disclosures for both internally developed and externally acquired intangibles would provide a mechanism to facilitate the comparison of these two types of intangibles.

Numerous research studies support the notion that disaggregation of income statement amounts improves financial statement users' predictions of future cash flows (Bradshaw et al. 2010). Noordermeer and Vorst (2025) extend this disaggregation research to the balance sheet and show that the disaggregation of heterogeneous assets enhances predictions of operating asset growth and revenue growth. Specifically, they highlight the benefits of separately considering property, plant, and equipment, intangible assets, other non-current operating assets, and current operating assets.

As noted in the ITC, internally developed intangibles are primarily expensed, while externally acquired intangibles are primarily capitalized. Consequently, the balance sheet amounts of these two types of intangibles have a different association with future cash flows. Due to the heterogeneous nature of this association with future cash flows, disaggregation research suggests that disaggregating intangibles based on their origin (i.e., internally developed vs. externally acquired) would provide decision-useful information.

It is important to note that while this suggestion is based on applying the findings of disaggregation research, there is a lack of research directly applicable to the disaggregation of internally developed versus externally acquired intangibles.

We are grateful for the opportunity to comment on the ITC. We are happy to answer any questions or provide clarification on our recommendations.

Sincerely,

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References

- Aboody, D., and B. Lev. 1998. The value relevance of intangibles: The case of software capitalization. *Journal of Accounting Research* 36: 161–191. <https://doi.org/10.2307/2491312>
- Aboody, D., and B. Lev. 2000. Information asymmetry, R&D, and insider gains. *The Journal of Finance* 55 (6): 2747–2766. <https://doi.org/10.1111/0022-1082.00305>
- Ahmed, K., and H. Falk. 2006. The value relevance of management’s research and development reporting choice: Evidence from Australia. *Journal of Accounting and Public Policy* 25 (3): 231–264. <https://doi.org/10.1016/j.jaccpubpol.2006.03.002>
- Altamuro, J., L. H. Chen, and Y. Li. 2025. Are U.S. GAAP-based and IFRS-based accounting amounts more comparable after the revised lease standards? Evidence from ASC 842 and IFRS 16. *Review of Accounting Studies*, forthcoming. <https://doi.org/10.1007/s11142-025-09874-8>
- Amir, E., B. Lev, and T. Sougiannis. 2003. Do financial analysts get intangibles? *European Accounting Review* 12 (4): 635–659. <https://doi.org/10.1080/0963818032000141879>
- Banker, R. D., R. Huang, R. Natarajan, and S. Zhao. 2019. Market valuation of intangible asset: Evidence on SG&A expenditure. *The Accounting Review* 94 (6): 61–90. <https://doi.org/10.2308/accr-52468>
- Barker, R., A. Lennard, S. Penman, and A. Teixeira. 2022. Accounting for intangible assets: suggested solutions. *Accounting and Business Research* 52 (6): 601–630. <https://doi.org/10.1080/00014788.2021.1938963>
- Barron, O. E., D. Byard, C. Kile, and E. J. Riedl. 2002. High-technology intangibles and analysts’ forecasts. *Journal of Accounting Research* 40 (2): 289–312. <https://doi.org/10.1111/1475-679X.00048>
- Barth, M. E., and K. H. Gee. 2024. Accounting and innovation: Paths forward for research. *Journal of Accounting and Economics* 78 (2-3): 1–9. <https://doi.org/10.1016/j.jacceco.2024.101733>
- Barth, M. E., R. Kasznik, and M. F. McNichols. 2002. Analyst coverage and intangible assets. *Journal of Accounting Research* 39 (1): 1–34. <https://doi.org/10.1111/1475-679X.00001>
- Barth, M. E., W. R. Landsman, M. Lang, and C. Williams. 2012. Are IFRS-based and US GAAP-based accounting amounts comparable? *Journal of Accounting and Economics* 54 (1): 68–93. <https://doi.org/10.1016/j.jacceco.2012.03.001>
- Barth, M. E., K. Li, and C. G. McClure. 2023. Evolution in value relevance of accounting information. *The Accounting Review* 98 (1): 1–28. <https://doi.org/10.2308/TAR-2019-0521>
- Basu, S., and G. Waymire. 2008. Has the importance of intangibles really grown? And if so, why? *Accounting and Business Research* 38 (3): 171–190. <https://doi.org/10.1080/00014788.2008.9663331>
- Beyhaghi, M., P. Khashabi, and A. Mohammadi. 2023. Pre-grant patent disclosure and analyst forecast accuracy. *Management Science* 69 (5): 3140–3155. <https://doi.org/10.1287/mnsc.2022.4420>
- Bradshaw, M., C. Callahan, J. Ciesielski, E. Gordon, M. Kohlbeck, L. Hodder, P. E. Hopkins, R. Laux, S. McVay, and T. Stober. 2010. The American Accounting Association’s Financial Reporting Policy Committee’s response to the preliminary views on financial statement presentation. *Accounting Horizons* 24 (2): 279–296.

<https://doi.org/10.2308/acch.2010.24.2.279>

- Bronson, S. N., A. Ghosh, and C. E. Hogan. 2017. Audit fee differential, audit effort, and litigation risk: An examination of ADR firms. *Contemporary Accounting Research* 34 (1): 83–117. <https://doi.org/10.1111/1911-3846.12238>
- Bublitz, B., and M. Ettredge. 1989. The information in discretionary outlays: Advertising, research, and development. *Accounting Review* 64 (1): 108–124.
- Chen, E., I. Gavigous, and B. Lev. 2017. The positive externalities of IFRS R&D capitalization: enhanced voluntary disclosure. *Review of Accounting Studies* 22 (2): 677–714. <https://doi.org/10.1007/s11142-017-9399-x>
- Chen, L. H., and I. K. Khurana. 2025. Using IFRS or US GAAP in the United States: The case of audit fees. *Auditing: A Journal of Practice and Theory*, forthcoming. <https://doi.org/10.2308/AJPT-2022-026>
- Chung, H. S. H., S. A. Hillegeist, Y. I. Park, and J. P. Wynn. 2019. Capitalization of in-process research and development under SFAS 141R and information asymmetry. *Contemporary Accounting Research* 36 (4): 2379–2407. <https://doi.org/10.1111/1911-3846.12508>
- Ciftci, M., and N. Zhou. 2016. Capitalizing R&D expenses versus disclosing intangible information. *Review of Quantitative Finance and Accounting* 46 (3): 661–689. <https://doi.org/10.1007/s11156-014-0482-0>
- Clem, A., A. R. Cowan, and C. Jeffrey. 2004. Market reaction to proposed changes in accounting for purchased research and development in R&D-intensive industries. *Journal of Accounting, Auditing & Finance* 19 (4): 405–428. <https://doi.org/10.1177/0148558X0401900403>
- Convery, A. M., M. S. Hill, M. I. Vulcheva, D. D. Wangerin, D. Byard, S. Garavaglia, K. H. Gee, O. K. Hope, and P. C. Stocken. 2024. Response to the Financial Accounting Standards Board’s exposure draft “Income Statement—Reporting Comprehensive Income—Expense Disaggregation Disclosures (Subtopic 220-40)”. *Journal of Financial Reporting* 9 (2): 1–15. <https://doi.org/10.2308/JFR-2023-033>
- Dargenidou, C., R. H. G. Jackson, I. Tsalavoutas, and F. Tsofigkas. 2021. Capitalisation of R&D and the informativeness of stock prices: Pre-and post-IFRS evidence. *The British Accounting Review* 53 (4): 1–22. <https://doi.org/10.1016/j.bar.2021.100998>
- De Waegenare, A., R. C. Sansing, and J. L. Wielhouwer. 2017. Development cost capitalization during R&D races. *Contemporary Accounting Research* 34 (3): 1522–1546. <https://doi.org/10.1111/1911-3846.12306>
- Dinh, T., H. Kang, and W. Schultze. 2016. Capitalizing research & development: Signaling or earnings management? *European Accounting Review* 25 (2): 373–401. <https://doi.org/10.1080/09638180.2015.1031149>
- Dionysiou, D., R. Slack, I. Tsalavoutas, and F. Tsofigkas. 2023. Reporting of R&D: Disclosure without recognition? ACCA and Adam Smith Business School research report. <https://eprints.gla.ac.uk/298677/1/298677.pdf>.

- Eberhart, A. C., W. F. Maxwell, and A. R. Siddique. 2004. An examination of long-term abnormal stock returns and operating performance following R&D increases. *The Journal of Finance* 59 (2): 623–650. <https://doi.org/10.1111/j.1540-6261.2004.00644.x>
- Edmans, A. 2011. Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics* 101 (3): 621–640. <https://doi.org/10.1016/j.jfineco.2011.03.021>
- Enache, L., and A. Srivastava. 2018. Should intangible investments be reported separately or commingled with operating expenses? New evidence. *Management Science* 64 (7): 3446–3468. <https://doi.org/10.1287/mnsc.2017.2769>
- Ewens, M., R. H. Peters, and S. Wang. 2025. Measuring intangible capital with market prices. *Management Science* 71 (1): 407–427. <https://doi.org/10.1287/mnsc.2021.02058>
- Financial Accounting Standards Board (FASB). 1974. Statement of Financial Accounting Standards No. 2: Accounting for research and development costs. Norwalk, CT: FASB. <https://www.fasb.org/page/PageContent?pageId=/reference-library/superseded-standards/summary-of-statement-no-2.html&bcpath=tff>
- Financial Accounting Standards Board (FASB). 1985. Statement of Financial Accounting Standards No. 86: Accounting for the costs of computer software to be sold, leased, or otherwise marketed. Norwalk, CT: FASB. <https://www.fasb.org/page/PageContent?pageId=/reference-library/superseded-standards/summary-of-statement-no-86.html&bcpath=tff>
- Financial Accounting Standards Board (FASB). 2019. Identifiable Intangible Assets and Subsequent Accounting for Goodwill. FASB Invitation to Comment. Norwalk, CT: FASB. https://www.fasb.org/page/ShowPdf?path=ITC-Identifiable_Intangible_Assets_and_Subsequent_Accounting_for_Goodwill.pdf&title=Invitation%20to%20Comment%E2%80%94Identifiable%20Intangible%20Assets%20and%20Subsequent%20Accounting%20for%20Goodwill
- Financial Accounting Standards Board (FASB). 2023. Improvements to Reportable Segment Disclosures. Segment Reporting (Topic 280). Accounting Standards Update No. 2023-07. Norwalk, CT: FASB. [https://www.fasb.org/page/ShowPdf?path=ASU%202023-07.pdf&title=ACCOUNTING%20STANDARDS%20UPDATE%202023-07%E2%80%94Segment%20Reporting%20\(Topic%20280\):%20Improvements%20to%20Reportable%20Segment](https://www.fasb.org/page/ShowPdf?path=ASU%202023-07.pdf&title=ACCOUNTING%20STANDARDS%20UPDATE%202023-07%E2%80%94Segment%20Reporting%20(Topic%20280):%20Improvements%20to%20Reportable%20Segment)
- Financial Accounting Standards Board (FASB). 2024a. Income Statement—Reporting Comprehensive Income—Expense Disaggregation Disclosures (Subtopic 220-40). Disaggregation of Income Statement Expenses. Accounting Standards Update No. 2024-03. Norwalk, CT: FASB. <https://www.fasb.org/page/ShowPdf?path=ASU%202024-03.pdf&title=ACCOUNTING%20STANDARDS%20UPDATE%202024-03%E2%80%94Income%20Statement%E2%80%94Reporting%20Comprehensive%20Income%E2%80%94Expense%20Disaggregation>
- Financial Accounting Standards Board (FASB). 2024b. Conceptual framework for financial reporting (September 2024). Norwalk, CT: FASB.

[https://www.fasb.org/page/ShowPdf?path=Conceptual%20Framework%20for%20Financial%20Reporting%20\(September%202024\).pdf&title=Conceptual%20Framework%20for%20Financial%20Reporting](https://www.fasb.org/page/ShowPdf?path=Conceptual%20Framework%20for%20Financial%20Reporting%20(September%202024).pdf&title=Conceptual%20Framework%20for%20Financial%20Reporting)

- Gelb, D. S. 2002. Intangible assets and firms' disclosures: An empirical investigation. *Journal of Business Finance & Accounting* 29 (3-4): 457–476. <https://doi.org/10.1111/1468-5957.00438>
- Glaeser, S., and M. Lang. 2024. Measuring innovation and navigating its unique information issues: A review of the accounting literature on innovation. *Journal of Accounting and Economics* 78 (2-3): 1–32. <https://doi.org/10.1016/j.jacceco.2024.101720>
- Glaeser, S., J. Michels, and R. E. Verrecchia. 2020. Discretionary disclosure and manager horizon: Evidence from patenting. *Review of Accounting Studies* 25 (2): 597–635. <https://doi.org/10.1007/s11142-019-09520-0>
- Griliches, Z. 1979. Issues in assessing the contribution of research and development to productivity growth. *The Bell Journal of Economics* 10 (1): 92–116. <https://doi.org/10.2307/3003321>
- Healy, P. M., S. C. Myers, and C. D. Howe. 2002. R&D accounting and the tradeoff between relevance and objectivity. *Journal of Accounting Research* 40 (3): 677–710. <https://doi.org/10.1111/1475-679X.00067>
- Hirschey, M., V. J. Richardson, and S. Scholz. 2001. Value relevance of nonfinancial information: The case of patent data. *Review of Quantitative Finance and Accounting* 17 (3): 223–235. <https://doi.org/10.1023/A:1012223625399>
- Hirschey, M., and J. J. Weygandt. 1985. Amortization policy for advertising and research and development expenditures. *Journal of Accounting Research* 23 (1): 326–335. <https://doi.org/10.2307/2490921>
- IAS Plus. 2024. IASB launches surveys on intangible assets. <https://www.iasplus.com/en-gb/news/2024/october/iasb-launches-surveys-on-intangible-assets>
- IFRS Foundation. 2021. IAS 38 Intangible Assets. <https://www.ifrs.org/issued-standards/list-of-standards/ias-38-intangible-assets/>
- Iqbal, A., S. Rajgopal, A. Srivastava, and R. Zhao. 2025. A better estimate of internally generated intangible capital. *Management Science* 71 (1): 731–752. <https://doi.org/10.1287/mnsc.2022.01703>
- Khadaroo, M. I., and J. M. Shaikh. 2003. Toward research and development costs harmonization. *The CPA Journal* 2003 (September): 50–55.
- Kim, J. 2024. The effect of PCAOB inspections on corporation innovation: Evidence from deficiencies about the valuation of intangibles. *Review of Accounting Studies* 29 (2): 1491–1523. <https://doi.org/10.1007/s11142-022-09750-9>
- King, Z., T. J. Linsmeier, and D. D. Wangerin. 2024. Differences in the value relevance of identifiable intangible assets. *Review of Accounting Studies* 29 (4): 3838–3886. <https://doi.org/10.1007/s11142-023-09810-8>
- Koh, P. S., and D. M. Reeb. 2015. Missing r&d. *Journal of Accounting and Economics* 60 (1): 73–94. <https://doi.org/10.1016/j.jacceco.2015.03.004>

- Kothari, S. P., T. E. Laguerre, and A. J. Leone. 2002. Capitalization versus expensing: Evidence on the uncertainty of future earnings from capital expenditures versus R&D outlays. *Review of Accounting Studies* 7 (4): 355–382. <https://doi.org/10.1023/A:1020764227390>
- Kothari, S. P., K. Ramanna, and D. J. Skinner. 2010. Implications for GAAP from an analysis of positive research in accounting. *Journal of Accounting and Economics* 50 (2-3): 246–286. <https://doi.org/10.1016/j.jacceco.2010.09.003>
- Lerner, J., and J. Wulf. 2007. Innovation and incentives: Evidence from corporate R&D. *The Review of Economics and Statistics* 89 (4): 634–644. <https://doi.org/10.1162/rest.89.4.634>
- Lev, B. 2019. Ending the accounting-for-intangibles status quo. *European Accounting Review* 28 (4): 713–736. <https://doi.org/10.1080/09638180.2018.1521614>
- Lev, B. 2002. Where have all of Enron's intangibles gone? *Journal of Accounting and Public Policy* 21 (2): 131–135.
- Lev, B., and F. Gu. 2016. *The End of Accounting and the Path Forward for Investors and Managers*. Hoboken, NJ: John Wiley & Sons, Inc.
- Lev, B., and T. Sougiannis. 1996. The capitalization, amortization, and value-relevance of R&D. *Journal of Accounting and Economics* 21 (1): 107–138. [https://doi.org/10.1016/0165-4101\(95\)00410-6](https://doi.org/10.1016/0165-4101(95)00410-6)
- Lev, B., and P. Zarowin. 1999. The boundaries of financial reporting and how to extend them. *Journal of Accounting Research* 37 (2): 353–385. <https://doi.org/10.2307/2491413>
- Mazzi, F., R. Slack, I. Tsalavoutas, and F. Tsofigkas. 2019. The capitalisation debate: R&D expenditure, disclosure content and quantity, and stakeholder views. ACCA research monograph. <https://www.accaglobal.com/gb/en/professional-insights/global-profession/the-capitalisation-debate.html>.
- Mazzi, F., R. Slack, I. Tsalavoutas, and F. Tsofigkas. 2022. Exploring investor views on accounting for R&D costs under IAS 38. *Journal of Accounting and Public Policy* 41 (2): 106944. <https://doi.org/10.1016/j.jaccpubpol.2022.106944>
- Nixon, B. 1997. The accounting treatment of research and development expenditure: views of UK company accountants. *European Accounting Review* 6 (2): 265–277. <https://doi.org/10.1080/713764720>
- Noordermeer, B., and P. Vorst. 2025. The informativeness of balance sheet disaggregations: Evidence from forecasting operating assets. *Management Science*, forthcoming. doi:10.1287/mnsc.2023.01413.
- Oswald, D., A. Simpson, and P. Zarowin. 2022. Capitalization vs. expensing and the behavior of R&D expenditures. *Review of Accounting Studies* 27 (4): 1199–1232. <https://doi.org/10.1007/s11142-021-09631-7>
- Penman, S. H. 2009. Accounting for intangible assets: There is also an income statement. *Abacus* 45 (3): 358–371. <https://doi.org/10.1111/j.1467-6281.2009.00293.x>
- Penman, S. 2023. Accounting for intangible assets: Thinking it through. *Australian Accounting Review* 33 (1): 5–13. <https://doi.org/10.1111/auar.12394>

- Romer, P. M. 1990. Endogenous technological change. *Journal of Political Economy* 98 (5, Part 2): S71-S102.
- Seybert, N. 2010. R&D capitalization and reputation-driven real earnings management (Partially Retracted). *The Accounting Review* 85(2): 671–693.
<https://doi.org/10.2308/accr.2010.85.2.671>
- Srivastava, A. 2014. Why have measures of earnings quality changed over time? *Journal of Accounting and Economics* 57 (2-3): 196–217. <https://doi.org/10.1016/j.jacceco.2014.04.001>
- Wyatt, A. 2005. Accounting recognition of intangible assets: theory and evidence on economic determinants. *The Accounting Review* 80 (3): 967–1003.
<https://doi.org/10.2308/accr.2005.80.3.967>
- Wyatt, A. 2008. What financial and non-financial information on intangibles is value-relevant? A review of the evidence. *Accounting and Business Research* 38 (3): 217–256.
<https://doi.org/10.1080/00014788.2008.9663336>
- Yanadori, Y., and V. Cui. 2013. Creating incentives for innovation? The relationship between pay dispersion in R&D groups and firm innovation performance. *Strategic Management Journal* 34 (12): 1502–1511. <https://doi.org/10.1002/smj.2071>