Accounting for Intangible Assets in Scandinavia, the UK, the US, and by the IASC: Challenges and a Solution

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Abstract: Improved accounting for intangible assets is one of the major challenges to future financial reporting. Conventionally, resources spent on intangibles such as knowledge, design, licenses, and trademarks have been expensed and hence treated merely as costs and not as investments with book values. Such an arbitrary way of dealing with intangible resources is believed to have increasingly reduced the value-relevance of financial reporting as the importance of intangibles in the economy has increased over time. Intangible resources that meet certain criteria for asset recognition should be capitalized as assets and their costs amortized over the best estimate of their useful lives. In this article, we argue that the value-relevance of financial statements would be further improved if previously expensed costs are partly reversed and capitalized if, at a later period, the intangible item in question meets the asset recognition criteria. The increased income variation due to reversed expenses would be a signal of earnings potential and risk.

Since knowledge, research and development (R&D), advertising, and other intangible resources constitute an increasingly important part of modern economies, accounting for intangibles has become an increasingly important problem facing the accounting profession, especially standard-setting organizations. Traditionally, resources spent on intangible assets have not been treated as valuable investments and capitalized in the balance sheet. Instead, they have been expensed and thus reported as costs that should hardly be expected to generate future benefits, after taking into consideration the considerable risk normally associated with the future benefits of intangible assets. This could mislead investors relying upon the financial statement as their primary source of information, and make short-term behavior attractive to managers.

Capitalizing and then amortizing intangible assets over their useful lives will more properly match costs with future benefits, which is believed to increase the informa-
tiveness of financial statements. But since intangibles are difficult to record objectively, the value-relevance of financial statements will be reduced if doubtful or even non-existing assets are recorded. How far we should go in recognizing intangible assets is determined by the trade-off between how the relevance and the reliability of intangible asset capitalization affect the informativeness of accounting—and could only be determined empirically.

The purpose of this article is to examine how intangible resources affect the value-relevance of financial reporting and, based on this analysis, to sketch a framework for intangible asset accounting that is believed to improve the informativeness of financial reporting. In addition, we look at how some regulators, through accounting standards or legislation, have responded to the increased importance of intangible resources in the economy. Their work is seen relative to the outlined principles for value relevant accounting of intangible assets.

The conclusion is that in order to improve the informativeness and hence the value-relevance of financial reports, intangibles, irrespective of their type, should be capitalized and subsequently amortized over their useful lives, provided they meet certain criteria for asset recognition. If the economic value of a portfolio of intangible assets is less than its cost, the portfolio should be written down to its economic value. If, in a later period, the economic value increases, the carrying value should be reversed/revalued—but not above cost (i.e., acquisition or production cost with the deduction of accumulated amortization).

If the asset recognition criteria are not met, intangible resources should be expensed in the period in which they are incurred. Unlike the International Accounting Standards Committee (IASC) and other standard-setting organizations, we propose that if the recognition criteria for an asset are met in a later period, some of the previously expensed costs (i.e., the development costs with deduction of accumulated amortization up to the time of recognition) should be reversed through the income statement and capitalized as an asset. Before reversion of previously expensed cost can be done, there should, nevertheless, be an initial and transparent recognition of the possibility that an intangible asset is, or could be, created as a result of the expensed costs, e.g., through a footnote disclosure in the period of precautionary expensing. This is necessary to limit the potential for earnings management through doubtful asset recognition. If no recognition is made ex ante, no reversion of previously expensed costs should be allowed ex post.

According to our view, conditional reversion would produce an informative signal to investors and other financial statement users: Earnings are affected negatively in the year the costs are expensed, signaling that the investment probably is lost. Earnings are affected positively in the year of capitalization, signaling that an intangible asset with future economic benefits has been created. The income variation caused by conditional reversion is a signal of earnings potential and risk. Better risk accounting yields valuable information to investors and other users, increasing the value-relevance of financial statements.

**Definition**

Assets are defined by the Financial Accounting Standards Board (FASB) in SFAC 6 *Elements of Financial Statements* as “probable future economic benefits obtained or
controlled by a particular entity as a result of past transactions or events,” and could be classified as either tangible or intangible assets. Tangibles are assets that have physical substance (e.g., property, plant, and equipment), while intangibles are without physical substance. They are instead characterized by rights or other similar benefits. Even though financial or monetary assets in many respects are close to intangible assets, they are usually considered as tangible assets (or as a separate group of assets).

The IASC, in their IAS 38 *Intangible Assets*, defines an (identifiable) intangible asset as a “non-monetary asset without physical substance held for use in the production or supply of goods or services, for rental to others, or for administrative purposes. An asset is a resource: (a) controlled by an enterprise as a result of past events; and (b) from which future economic benefits are expected to flow to the enterprise.” (Section 7; see also Accounting Standards Board’s (ASB) FRS 10 *Goodwill and Intangible Assets* for a similar definition). Examples are brand names, copyrights, covenants not to compete, franchises, future interests, licenses, operating rights, patents, record masters, secret processes, trademarks, and trade names. If identified, assets that result from activities such as advertising and R&D are identifiable intangible assets as long as knowledge or other intangible aspects about the assets are the primary outcome and not any physical element of those assets.

Closely related to intangible assets are deferred charges (to revenue) (see, e.g., Hendriksen and Van Breda, 1992). Deferred charges are expenditures not recognized as costs of the period in which they are incurred, but carried forward as assets to be written off in future periods to match future revenue. Examples that are categorized as long-term assets, because they will be amortized over more than 1 year, are advertising and promotion costs, R&D costs, organization costs, start-up costs, and legal costs. The distinction between intangibles and deferred charges is at best vague. In fact, deferred charges can, as in this article, be considered a type of intangible assets. Some, including the IASC, are reluctant to recognize deferred charges as assets (see, e.g., E60 (p. 58) where it is pointed out that the concept of deferred costs does not exist in IASC’s vocabulary, presumably because the IASC has a balance sheet-oriented view on accounting).

Externally and internally generated goodwill represents future economic benefits from synergy between identifiable assets or from intangible assets that do not meet the criteria for an identifiable intangible asset, and is measured as the difference between the (market) value of the entity and the book value of the entity’s identifiable assets (see, e.g., Johnsen and Patrone, 1998). Thus, intangible assets consist of identifiable intangible assets, including deferred charges, and unidentified intangible assets in terms of goodwill.

Externally generated intangible assets are assets purchased via transactions with external parties at arms-length prices, either individually or as a part of a business combination. An example is purchased goodwill arising from a business combination. Internally generated intangible assets are developed within an entity as a result of a series of external transactions; an event, process or activity; or both. An example is internally generated goodwill. Within transactional historical cost accounting, internally generated goodwill is not considered an asset because it is not based on clearly identifiable transactions or events.

The remainder of this article is organized into five sections. The section “The Generally Accepted Accounting Principles (GAAP) of Intangible Assets: A Comparison...
of Major Standard-Setters” gives an overview of how intangible resources are treated by major standard-setting organizations, i.e., the FASB, the ASB, and the IASC. The section “The GAAP on Intangible Assets in the Scandinavian Countries: A Comparison” examines how intangibles are treated in some smaller countries with a history of a less restrictive attitude in their legislation towards capitalization of intangible assets than major standard-setters. The section “Intangible Assets: Value-Relevance, Reliability, and the Choice of Accounting Principles” summarizes the research related to intangible resources and the value-relevance of financial statements, and looks at the basis of a trade-off between relevance through capitalization and reliability through expensing. The section “Intangible Asset Accounting: A Proposition” sketches our normative view on how intangible resources should be accounted for. The last section concludes.

THE GENERALLY ACCEPTED ACCOUNTING PRINCIPLES (GAAP) OF INTANGIBLE ASSETS: A COMPARISON OF MAJOR STANDARD-SETTERS

Historically, the world’s most influential standard-setting organizations have been the FASB in the US, the ASB in the UK, and the IASC, which is the organization developing international accounting standards. Continental European countries have played a less important role in the development of “good accounting practice,” but this may change with the establishment of an accounting standard-setting organization within the European Union (EU), or with a stronger involvement of Continental European countries within the IASC.

FASB/US GAAP

The FASB is a private-sector body and the major player in the determination of GAAP in the US. So far, it has issued more than 135 accounting standards (not all are active) and various interpretations, opinions, and bulletins (see, e.g., Delaney, 1998; Williams, 1998 for a comprehensive guide to US GAAP). Underlying the FASB’s accounting standards is the conceptual framework (i.e., the objectives of accounting, the qualitative characteristics of useful accounting information and the fundamental concepts in accounting) given in SFAC 1–6.

The accounting standards in the US related to intangible resources include APB 16 Business Combinations, APB 17 Intangible Assets, SFAS 2 Accounting for Research and Development, SFAS 44 Accounting for Intangible Assets of Motor Carriers, SFAS 61 Accounting for Title Plant, SFAS 63 Financial Reporting by Broadcasters, SFAS 68 Research and Development Agreements, SFAS 72 Accounting for Certain Acquisition of Banking or Thrift Institutions, SFAS 86 Accounting for the Costs of Computer Software to be Sold, Leased, or Otherwise Marketed (see also SOP 98-1 Accounting for the Costs of Computer Software Developed or Obtained for Internal Use, issued by AICPA), and SFAS 121 Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of. Some of the FASB Interpretations and Technical Bulletins are also related to intangible assets (e.g., Interpretations Nos. 4, 6, and 9, and Bulletins 84-1 and 85-5).

APB 17 covers both externally and internally developed intangibles (“patents, franchises, trademarks, and the like”), but not R&D costs covered by SFAS 2. APB
17 requires that identifiable intangible assets, irrespective of whether they are externally acquired or internally developed, should be capitalized at costs and amortized over their estimated useful lives. Internally developed unidentifiable intangibles should be expensed. In accordance with APB 17, SFAS 61 recommends that broadcasting licenses should be entered as an intangible asset in the balance sheet if certain conditions are met.

SFAS 121 requires that identifiable intangible assets should be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. In performing the review, the entity should estimate the future cash flows expected to result from the use of the asset and its eventual disposition. If the sum of the expected future cash flows (undiscounted and without interest charges) is less than the carrying amount of the asset, an impairment loss should be recognized. Otherwise, no impairment loss should be recognized. Measurement of an impairment loss for long-lived assets and identifiable intangible assets, that an entity expects to hold and use, should be based on the fair value of the asset. Restoration of previous impairment is not permitted.

The costs of developing, maintaining, or restoring intangible assets that are not specifically identifiable, have an indeterminate life, or are inherent in a continuing business, or related to the business as a whole, should be deducted from income when incurred. Thus, goodwill should only be recognized as the costs of unidentifiable intangible assets when purchased as part of a business acquired (see also APB 16). Externally acquired goodwill should be amortized, usually by the straight-line method over its estimated life not exceeding 40 years.

According to SFAS 2, all R&D costs should be written off at the time they are incurred (see also SFAS 61, SFAS 68, and SFAS 86). However, the costs of materials, equipment, and facilities that are acquired or constructed for R&D activities and have alternative uses in other projects, should be capitalized. In line with SFAS 2, SFAS 86 requires that all costs incurred in establishing the technological and/or economic feasibility of software are to be viewed as R&D costs and expensed when they are incurred. Once economic feasibility has been established, subsequent costs should be capitalized as part of product inventory and amortized based on product revenues or on a straight-line basis. From the introduction of SFAS 2 to SFAS 86, there seems to be a less restrictive attitude toward capitalization. Whether this signals a shift in attitude towards capitalization remains to be seen.

**ASB/UK GAAP**

The ASB is a private-sector body and a major determinant of GAAP in the UK. It has adopted the accounting standards developed by its predecessor ASC, issued 15 new standards, a few amendments to existing standards, and a number of exposure drafts and discussion papers. For a comprehensive guide to UK GAAP, see Davies et al. (1997) and for a comparison between UK and US GAAP, see Pereira et al. (1997).

The accounting standards in the UK related to intangible resources include FRS 2 *Accounting for Subsidiary Undertakings*, FRS 3 *Reporting Financial Performance*, FRS 10 *Goodwill and Intangible Assets* (which supersedes SSAP 22), FRS 11
Impairment of Fixed Assets and Goodwill, SSAP 2 Disclosure of Accounting Policies, SSAP 12 Accounting for Depreciation, and SSAP 13 Accounting for Research and Development (see also the Companies Act of 1985).

According to FRS 10, the costs of externally acquired intangible assets, including purchased goodwill, should be recorded as assets and amortized over their useful lives. Negative goodwill is, somewhat controversially, to be shown as a negative asset in the assets section of the balance sheet, just below any positive goodwill. The costs of internally developed intangible assets, including R&D costs under SSAP 13, should be deducted from income when incurred, unless they have a readily ascertainable market value. Accordingly, capitalization of such assets will be rare in practice.

There is a presumption that the useful lives of purchased goodwill and intangible assets are limited to 20 years. However, there may be grounds for rebutting that presumption and setting a useful economic life that is greater than 20 years, or even indefinite. Impairment reviews should be performed to ensure that goodwill and intangible assets are not carried at above their recoverable amounts (see FRS 11). Intangible assets with readily ascertainable market values may be revalued by reference to those market values. The reversal of a past impairment loss on intangible assets may be recognized only if it can clearly and demonstrably be attributed to the unforeseen reversal of the external event that caused the recognition of the original impairment loss. Still, past impairment losses may not be restored when the restoration in value is generated internally or from purchased goodwill.

Accordin to SSAP 13, all types of research expenditure, aimed at gaining new scientific or technical knowledge, should be written off as they are incurred (see also the Companies Act 1985, Schedule 4). Development expenditure, aimed at using scientific or technical knowledge for a specific commercial project, may however be capitalized and subsequently amortized if they satisfy certain, rather strict criteria. They require that there should be a clearly defined development project; the related expenditure is separately identifiable; the outcome of such a project has been assessed with reasonable certainty; the aggregate of the deferred development costs, any further development costs, and related production, selling, and administration costs are reasonably expected to be exceeded by related future sales or other revenue; and adequate resources exist, or are reasonably expected to be available, to enable the project to be completed and to provide any consequential increases in working capital.

Finally, what happens if a company has not capitalized development expenditure because the conditions were not met, but at a later date the uncertainties that led to its write-off no longer apply? The original SSAP 13 made it clear that such expenditures could not be reinstated as an asset; the revised SSAP 13 is however silent on the matter. Davies et al. (1997) believe that in such circumstances the expenditure should not be restated as an asset.

IASC/World GAAP

The IASC is an independent private-sector body working to achieve uniformity in the accounting principles that are used by businesses and other organizations for financial reporting around the world. A total of 133 professional accountancy
organizations in 103 countries are members; another 9 organizations are associate or affiliate members. IASC has issued 39 standards (not all are active), 63 exposure drafts, and 16 interpretations (see, e.g., Cairns, 1998; Epstein and Mirza, 1999 for a comprehensive guide to applying IASs). For a comparison between IASC Standards and US GAAP, see Bloomer (1996).

Among the accounting standards that are related to intangible resources are: IAS 4 Depreciation, IAS 5 Information to Be Disclosed in Financial Statements, IAS 22 Business Combinations (revised), IAS 36 Impairment of Assets, and IAS 38 Intangible Assets (superseding IAS 9); see also the Exposure Drafts E60 Intangible Assets, its predecessor E50, and E61 Business Combinations.

According to IAS 38, an intangible asset, including expenditure on advertising, training, start-up, and R&D activities, should be recognized at cost if and only if it is identifiable, it is probable that specifically attributable economic benefits will flow from the asset, and its cost can be measured reliably (see also Rivat, 1997, 1998). If recognized, an intangible asset, no matter whether it is purchased externally or generated internally, should amortized over the best estimate of its useful life. However, there should be a presumption that the useful life is less than 20 years. If an intangible assets is amortized over more than 20 years, the enterprise should both disclose the reason why and test the asset for impairment at least annually in accordance with IAS 36 Impairment of Assets. Revaluation of an intangible asset is allowed if there is an active market for the asset (cf. IAS 16).

It follows from the recognition criteria of an intangible asset that practically all expenditure on R&D, start-up, training, and advertising should be expensed as it is incurred. IAS 38 also specifically prohibits the recognition as assets of internally generated goodwill, brands, mastheads, publishing titles, customer lists and items of similar substance. However, some development expenditure may result in the recognition of an asset.

According to IAS 22, an enterprise should account for the acquisition of another business at cost in the same way that it accounts for the acquisition of other assets and liabilities. Any excess payment over the amounts attributed to identifiable assets is purchased goodwill that should be capitalized and amortized over its life, a period normally not exceeding 20 years (see also E61). If an intangible item involved in a business combination does not meet the criteria for a separate intangible asset, the expenditure on this item should form part of the amount attributed to goodwill at the date of acquisition.

If an intangible item does not meet both the definition and the criteria for recognition of an intangible asset, the expenditure on this item should be expensed when it is incurred. IASC does recommend that “expenditure on an intangible item that was initially recognized as an expense by a reporting enterprise in pervious annual financial statements or interim financial reports should not be recognized as part of the cost of an intangible asset at a later date” (see IAS 38, Section 59). However, the IASC “acknowledges that persuasive arguments can be mounted in favor of both approaches” (see E50). In their response to E60, the Association of Chartered Certified Accountants in the UK would like the costs of intangible items that have been written off to be reinstated if the situation changes (see Accountancy, February 1998, p. 78).
Some Remarks

In order to get accounting standards accepted, standard-setters have to carefully balance the various considerations affecting the relevance and reliability and, hence, informativeness of financial statements. In addition, they have to take into consideration the interests of reporting entities, users, and financial analysts. Sometimes these other interests do not coincide with more informative reporting, e.g., because it is too costly or it reduces the need for interpretation (which may not be in the business interests of financial analysts).

When it comes to intangible resources, standard-setters have been reluctant to recognize them as assets, particularly assets generated from activities such as R&D. This is because such recognition would be inconsistent with the asset recognition criteria and give reporting entities larger possibilities to manage earnings by recognizing doubtful or even imaginary assets. However, we might trace a greater willingness over time to recognize intangible resources as assets, especially by the IASC and ASB, presumably because of pressure from financial statement users (cf. e.g., Davies and Waddington, 1999). We expect this pressure to increase as the importance of intangibles increases over time.

Our review of how the FASB, the ASB, and the IASC account for intangible resources reveals little differences among these standard-setting organizations, presumably because they are all dominated by the Anglo-American accounting tradition, focusing on the capital market as the primary users of financial statement information. In order to get a broader view on accounting, we are now examining how some smaller EU/European Economic Area (EU/EEA) countries are accounting for intangible resources in their legislation and accounting standards.

THE GAAP ON INTANGIBLE ASSETS IN THE SCANDINAVIAN COUNTRIES: A COMPARISON

The work of the world’s most resourceful standard-setting organizations often represents an implicit foundation for the accounting development in smaller countries, such as the Scandinavian countries. To find out more about the extent of harmonization, we review how Denmark, Norway, and Sweden are accounting for intangible resources. Another reason for focusing on these countries is that they have recently renewed their accounting legislation, and it is interesting to see how the reinforced challenge to account for intangible resources has been taken care of. Finally, the Scandinavian countries are members of the EU and/or the EEA, with EU Fourth and Seventh Directives fully or partially implemented in their accounting legislation (see, e.g., Kinserdal, 1998, pp. 121–140 for a detailed presentation of the EU Fourth Directive).

Denmark

In Denmark, accounting is regulated by the Financial Statement Act of 1981 (LBK No. 526 af 17/06/1996 Arsregnskabsbekendtgørelsen; LBK No. 788 af 29/08/1996 Oppstillingsbekendtgørelsen). As a member of the EU, Denmark has implemented the Fourth and Seventh Directives in its Financial Statement Act. In addition to covering specific accounting issues and some basic accounting principles, the general requirement is that
Danish financial statements should give a true and fair view ("retvisende billede"); see Section 4.2 in LBK No. 526.

The major professional body for auditors, Foreningen af Statsautoriserede Revisorer (FSR), publishes International Accounting Standards in both English and Danish with comments and recommendations for the implementation by Danish companies. Since 1988, FSR has also published separate Danish Accounting Standards. The Copenhagen Stock Exchange requires listed companies to comply with these accounting standards. For a review of Danish accounting regulation, see, for example, Elling (1994) or Hansen (1998).

Intangible assets should be capitalized in the balance sheet in the following categories: (1) development costs, (2) concessions, patents, licenses, trademarks, and similar rights, (3) goodwill, and (4) payments on accounts related to intangible assets (see LBK 788 1996, Section 2).

Accordingly, capitalization of development costs is permitted under certain conditions (see also Danish Accounting Standard No. 7, and EU Fourth Directive, Article 9 or 10). When intangible assets are capitalized, they should be amortized over a period of up to 5 years as long as it is not explained in the notes why the life is beyond 5 years (see LBK 526, Section 36; cf. EU Fourth Directive, especially Article 35ab and 37.1). Any outstanding balance should be reviewed each year and written down to the recoverable amount if necessary (Section 29; cf. Article 35c in EU Fourth Directive). Revaluation is not permitted (Section 30). According to Section 19, it is not allowed to capitalize internally generated intangible assets, except development costs. Thus, it is purchased concessions, patents, licenses, trademarks, and other rights that should be capitalized under category (2) above.

Following the implementation of the EU Seventh Directive, purchased goodwill may be written off against reserves at the time of acquisition, taken through the profit and loss account, or recognized as an intangible fixed asset on acquisition and amortized over its useful life (LBK 788 Section 17; cf. Articles 19, 30, and 31). If the useful life is estimated to be more than 5 years, the reason must be explained in the financial statement notes (cf. Section 36).

Norway

In Norway, financial reporting is regulated by the Accounting Act of 1998 (Reknekapslova av 17. Juli 1998 No. 56), which represents a legal framework for the application of general accounting principles. The basic requirement is that financial statements should be prepared in accordance with good accounting practice ("god rekneskapsskikk"), which is a dynamic concept. As a member of the EEA, Norway has partially implemented the EU Fourth and Seventh Directives. Since 1990, Norwegian Accounting Standards have been prepared and published by Norsk Rekneskapstiftning (NRS). NRS has adopted six of the accounting standards prepared by the professional body for auditors, Den norske Revisorforening (DnR, formerly NSRF and NRRF), and published four accounting standards, several preliminary Standards and Exposure Drafts on their own. The Oslo Stock Exchange requires listed companies to comply with Norwegian Accounting Standards. For a review, see, e.g., Kinserdal (1994) or Eilifsen and Johnsen (1998).
The Accounting Act will be in force from 1999 (see NOU 30:95, Odelstingsproposisjon No. 42 (1997–1998) and Odelstingsinnstilling No. 61 (1997–1998)). In this new and rather revenue/expense-oriented act, basic accounting principles (such as transactions-based revenue recognition, matching of costs with revenues, loss recognition after prudence and hedging considerations; see Section 4-1 in the Act) act explicitly as the foundation for how GAAP should be applied, with several exceptions (e.g., market-based valuation of assets traded in liquid financial markets; see Section 5-8).

According to Section 6-2, intangible assets should be classified in the balance sheet in the following categories: (1) R&D costs, (2) concessions, patents, licenses, trademarks, and similar rights and assets, (3) deferred tax asset, and (4) goodwill. Amortized amounts and possible write-downs should, according to Section 6-1, be reported in the profit and loss account. In October 1998, NRS issued a proposed standard on intangible assets.

Identified intangible assets and purchased goodwill should be recognized according to the general rules for fixed assets, and therefore be capitalized at costs and amortized systematically over their useful life (Section 5-3). If the value is expected to be permanently less than the book value, the asset should be written down to its fair value. If the fall in value reverses, so should the book value up to the value it would have been recognized at were it not to have been written down. The expected useful life of each intangible asset and their amortization method should be disclosed in the financial statement notes (Section 7-15).

According to Section 5-6, an exception to the general recognition rule for fixed assets is given to internally generated R&D costs, which might be expensed immediately (see also Norwegian Accounting Standard No. 14). Anyway, the total R&D costs, their nature, and whether the expected benefits from this R&D are expected to exceed their costs should be disclosed each year in the notes (Section 7-14). According to Section 5-7, purchased goodwill should be amortized over its useful life. But if amortized over more than 5 years, the reasons for using a life of more than 5 years should be disclosed (Section 7-14). Information about purchased goodwill should also be given for each business combination that the entity is involved in. Internally generated goodwill should not be capitalized in the balance sheet, as this would not be in accordance with transactional-based recognition (Section 4-1).

According to Section 4-2, the income effect of estimate changes should be recorded in the period of changed expectations, if income recognition cannot be deferred according to good accounting practice. This could be interpreted to mean that if the estimated life of an intangible asset is changed from, say, 0 (i.e., from immediate expensing) to 10 years, then the previously expensed costs should be capitalized and amortized over the asset’s remaining life. But such an interpretation is not recommended in NRS’s standard on intangible assets.

Sweden

In Sweden, accounting is regulated by the Accounting Acts of 1976, 1980, and 1995 (Bokföringslag 1976:125; Årsredovisning m.m. i vissa företag 1980:1103; Årsredovisningslag 1995:1554). In addition to covering specific accounting issues and basic accounting principle, the main requirement in the accounting legislation is that financial
statements should be prepared according to good accounting practice ("god redovisningssed") and give a true and fair view ("Rättvisad bild") (see Sections 2.2 and 2.3 in the Annual Accounts Act of 1995). As a member of EU, Sweden has implemented the Fourth and the Seventh Directives.

Swedish Accounting Standards are issued by Redovisningsrådet (RR), which includes members from the government, business, and certified auditors (organized in Föreningen Auktoriserade Revisorer, FAR). RR has adopted some of the accounting standards, draft recommendations, and statements of its predecessors (FAR and Bokföringsnämnden (BFN)), and prepared and issued several accounting standards of its own. The Stockholm Stock Exchange requires listed companies to comply with these standards. For a review of the Swedish accounting regulation, see, e.g., Jönsson and Marton (1994) or Heurlin and Peterssohn (1998).

According to Section 3.3 in the Annual Accounts Act of 1995, intangible assets, if recognized, should be classified as fixed assets in the balance sheet and specified in the following categories: (1) capitalized cost of R&D and similar projects, (2) concessions, patents, licenses, trademarks, and similar rights, (3) tenancy agreements and similar rights, (4) goodwill, and (5) payments on accounts (cf. EU Fourth Directive, Article 9 or 10).

If intangible assets are capitalized, they should be amortized over a period not exceeding 5 years, unless a longer period can be determined with reasonable certainty (Section 4.4). If the latter is the case, details of why the expected life exceeds 5 years should be disclosed. If the estimated value of an intangible asset is less than the book value, and the fall in value is not temporary, it should be written down (Section 4.5). Revaluation of intangible assets is not permitted (Section 4.6).

According to Section 4.2, R&D and similar projects may be capitalized or expensed immediately in the period in which they are incurred. In accordance with Swedish Accounting Standard BFN R1, the general rule is that R&D costs are charged directly to expenses. Development costs may be capitalized provided they satisfy certain criteria (see also BFN 88:15–16 on computer software capitalization). A new accounting standard on intangible assets, replacing BFN R1, is expected during 1999. According to Swedish Accounting Standard RR 1, purchased goodwill should be amortized over its expected useful life. It should not exceed 5 years unless special circumstances would support a longer life; under no circumstances, should the expected life exceed 20 years. Internally generated goodwill should not be capitalized in the balance sheet.

Some Remarks

The reporting of intangible resources in Scandinavia follows the EU Fourth and Seventh Directives in which intangible assets should be capitalized in the balance sheet. R&D costs may be expensed when they are incurred. This option has often been used in practice, because expensing in the financial statement has been required for tax deductions.

Our review of accounting practice reveals that the Scandinavian countries have been less reluctant to recognize intangible assets in the balance sheet than standard-setting organizations in the UK, the US, and the IASC. However, the less restrictive attitude
toward capitalization is partly compensated by a shorter period of recommended amortization when recognized. In Scandinavia, purchased goodwill, for instance, should be amortized over a period not exceeding 5 years unless it is explicitly disclosed why the amortization period should be longer than 5 years. According to the ASB and the IASC, the period of goodwill amortization should not exceed 20 years, whereas the FASB sets the limit to 40 years.

A relevant question is why Continental European countries, including the Scandinavian ones, have been less reluctant to recognize intangible assets in the balance sheet than Anglo-American countries. In credit-oriented economies, such as the Central European ones, it is important to signal the value of the collateral to banks as the main sources of finance. In more equity-oriented economies, such as the Anglo-American ones, it is important to signal value to investors. Could these differences explain the identified difference in attitude toward the capitalization of intangible resources? Or is the more liberal view on capitalization a result of these countries lacking a well-developed conceptual framework that both helps them resolve these types of issues and constrain the possible choices available? In the following section, we are focusing upon whether the informational need of investors implies a restrictive attitude toward capitalization of intangible resources.

INTANGIBLE ASSETS: VALUE-RELEVANCE, RELIABILITY, AND THE CHOICE OF ACCOUNTING PRINCIPLES

The purpose of financial statements should be to provide information relevant for users in making economic decisions (see SFAC 1 Objectives of Financial Reporting by Business Enterprises). Thus, intangible resources should be accounted for to maximize the informational relevance of financial statements to users, especially current and prospective investors.

Financial statements have been criticized for not recognizing intangibles as assets (i.e., as future economic benefits) but merely as costs, which are expensed in the period in which they are incurred. As the importance of intangible assets is expected to be increasing in the world economy, the relevance of financial statements is expected to decline, since a larger part of the assets is missing from the balance sheet and their performance is distorted (see, e.g., Lev, 1997).

The critics of immediate expensing of intangible resources argue that such investments should be capitalized and their costs amortized to improve the matching of costs with future benefits. This, they argue, would improve the relevance and informativeness of financial statements. But the problem with most intangible assets is that they are difficult to identify and their expected future benefits are often considerably more uncertain than for tangible assets. By applying prudence and various asset recognition criteria based on a balance sheet-oriented view on accounting, standard-setting organizations and other regulators have been reluctant to recognize some intangible resources as assets. But since prudence and the conceptual framework could be taken care of within a system where intangible resources are accounted for, standard-setting organizations, such as the IASC in IAS 38, have lately been more willing to change their focus from prudence towards recognition.
Value-Relevance

Information is relevant if it has the capacity to confirm or change a decision-maker's expectations. Thus, the value-relevance of a financial statement is its ability to confirm or change investors' expectations of value.

If shares were traded among investors, the market price would summarize their expectations of value. The value-relevance of financial statements could therefore be measured by the response in the market price or volume when accounting numbers are published (i.e., through response coefficients), or by their ability to explain variations in the market price or volume (as measured by $R^2$, i.e., the explained variation relative to the total variation). A third more uncommon measure of value-relevance is the total return that could be earned from pre-disclosure knowledge of financial statement information. The advantage of using security market data when measuring value-relevance is that the associations reflect actual investor actions rather than their intended actions as is the case with questionnaire or survey evidence.

The association between accounting numbers and stock market valuation has been well documented by numerous empirical studies, initiated by Ball and Brown (1968) and Beaver (1968) (see, e.g., Lev, 1989 for a review). One approach is to study the security market reaction around the time accounting numbers are released (i.e., through event studies); another is to study the long-term association between accounting and market metrics. The first type of studies is used to infer whether new information is conveyed to the market by the release of accounting reports; the other type provides evidence on the extent to which the information contained in accounting reports is related in the information reflected in security prices over longer time intervals. In his review, Lev (1989) claims that the association between earnings and market valuation has produced embarrassingly small $R^2$ (see also Lev and Zarowin, 1999; Lang and Warfield, 1997 for similar concerns; Patell, 1989 for a critical discussion of $R^2$ as a measure of value-relevance). Lev concludes that accounting policy-makers should be concerned and suggests corrective actions.

A growing number of empirical studies have also documented that the value-relevance of accounting has been decreasing over the past decades as accounting numbers, especially reported earnings, are less able to explain variations in stock prices than before (see, e.g., Rayburn, 1986; Beaver et al., 1987; Board and Walker, 1990; Easton and Harris, 1991; Ramesh, 1991; Ramesh and Thiagarajan, 1995; Hayn, 1995; Lev and Zarowin, 1997; Aboody and Lev, 1999; Lev and Zarowin, 1999). Lev and Zarowin (1999) had suggested intangibles as a culprit in the decline because investment in intangible assets has increased significantly over time, and because the current accounting practice for intangibles creates a discrepancy between the valuation implied in firms' earnings and their stock prices.

Lev and Zarowin (1997), for instance, found that the value-relevance of earnings has been decreasing over the past 20 years, whereas the intangible intensity (i.e., expensed cost related to intangibles as a percentage of sales) has been increasing in the same period. To test whether the increased intangible (or rather R&D) intensity has been causing the decline in the information content of earnings (as measured by the earnings response coefficient and the $R^2$), Lev and Zarowin divide their sample firms into two groups. For firms with an increasing intangible intensity, Lev and Zarowin found the greatest decline in value-relevance. For the firms with a decreasing intangible intensity,
they found the greatest increase in value-relevance. Thus, the results of Lev and Zarowin support the hypothesis that inter-temporal changes in intangibles (especially R&D) are a part of the explanation for the inter-temporal decline in the information content of reported earnings (see also Lev and Sougiannis, 1996; Chambers et al., 1998 for similar findings).

Collins et al. (1997) found also that the value-relevance of earnings has been declining over the past 40 years, whereas the value-relevance of book value has increased (see also Dichev, 1997; Ely and Waymire, 1998; Francis and Schipper, 1999). The combined evidence from the literature is that value-relevance of earnings and book value has not declined. In fact, it appears to have increased slightly. These findings challenge the view of Lev and Zarowin (1999) and others that the value-relevance of financial statements has been declining. But the findings are not necessarily inconsistent with the view that the lack of capitalization of intangible assets makes financial statements less value relevant than they might have been.

To summarize; the research reviewed above presents some, but not conclusive, evidence that the value-relevance of earnings has decreased over time, with some of that decline resulting from the lack to account for intangible assets. However, when supplemented with balance sheet and other accounting information, there is less consistent evidence of a decline in the valuation-relevance of financial reports. The decline in value-relevance could also be attributed to the increase in general market volatility (see, e.g., Francis and Schipper, 1999).

The studies, reviewed above, were based on US data. King and Langli (1998) examined the value-relevance of accounting in Germany, Norway, and the UK (see also Harris et al., 1994; Joos and Lang, 1994; Frankel and Lee, 1996; Bartov et al., 1997). $R^2$ is found to be lower in Norway than in the UK, and lower in Germany than in Norway. King and Langli also observed that while the value-relevance of earnings and book value increased over time in Germany, they decreased over time in Norway and the UK.

These findings might suggest that European countries with an Anglo-American accounting basis have faced the same decline in value-relevance in the last decades as appears to be the case in the US. Whereas European countries with a Continental accounting basis have faced increased value-relevance, perhaps since they are shifting slowly from a creditor-oriented, tax-driven accounting system to a more shareholder-oriented system with deferred tax accounting. This shift in orientation is informative to shareholders and yet dominating the effect caused by increased intangible assets. Later, however, countries with a credit- and tax-oriented accounting system could face a similar reduction in value-relevance as has happened in the US and the UK. In this light, Norway should, up until recently, have witnessed an increase in value-relevance, making King and Langli’s (1998) results somewhat surprising. Hope (1999) found a significant increase in value-relevance in Norway after that country introduced deferred tax accounting in 1992.

Intangible Asset Accounting: A Trade-Off Between the Relevance, and Reliability of Capitalization/Expensing

If the current (and rather prudent) way of treating intangible resources in financial statements has affected the value-relevance of accounting numbers negatively as
suggested by some of the empirical studies discussed in the preceding sub-section, an obvious way of improvement would be to be less prudent when recognizing and measuring intangible assets (cf. e.g., Deng and Lev, 1998). Nevertheless, by becoming less prudent there is a risk of overdoing it, which would undermine value-relevance because measured income and equity would become too unreliable. This trade-off between the relevance and reliability of capitalization/expensing is explicitly recognized and discussed in SSAP 13 Accounting for Research and Development, see also SFAC 2 (Bierman and Dukes, 1975; Kothari et al., 1998). Chambers (1996) is critical to the outcome of such balancing motives.

Intangible assets have value because they, like tangible assets, are expected to produce future benefits for the entity. This means that, in principle, the same accounting treatment should be applied to both types of assets (see, e.g., Hendriksen and Van Breda, 1992). When an intangible asset is acquired externally or created internally, the matching principle requires that its costs should be capitalized and subsequent amortized over its useful economic life. If the economic value of the asset is less than the book value (impairment-test), it should be written down to the economic value. If, in a later period, the economic value increases, the book value of the intangible asset should be reversed, but not, within a historical cost accounting system, above acquisition costs with the deduction of accumulated amortization.

So far, so good; but when is an intangible asset acquired externally or created internally? Assets are defined by FASB in SFAC 6 (Section 25) as “probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events,” and according to SFAC 5 (Section 63), “an item should be recognized when it (a) meets the appropriate definition, (b) is measurable, (c) is relevant, and (d) is reliable.” Anytime an intangible resource meets these criteria, it should be recognized as an asset in the balance sheet.

It follows from the transactional-based definition of assets that if there is an arms-length transaction, which normally is the case when intangible resources are acquired externally, the resulting intangible resource should be recognized as an asset and capitalized in the balance sheet (see, e.g., Farquhar et al., 1992 for an application to brands). This means also that purchased goodwill should be capitalized and then amortized over its useful life.

Internally developed intangible resources can be created through a series of transactions with external parties, through activities or internal events, or through a combination of external and internal transactions and events. The main difference is that transactions are based on the reporting process that measures external events—the transactions; activities are based on the continuous value creating process curtailed in every business. Within the framework of the transactions-based, historical cost accounting system, only resources created by transactions should be recognized as assets. This implies that internally generated goodwill should not be recognized as an asset. Whereas R&D costs should be capitalized as long as they are the results of transactions with various internal and external suppliers, making it possible to measure these costs accurately, and as long as they are expected to produce future economic benefits (higher revenue or reduced costs).

Intangible resources have some distinctive characteristics that are relevant when evaluating whether they should be recognized as assets or not: (1) they have few or no alternative uses as many intangibles are rather firm-specific and difficult to utilize for others; (2) problems with, or even lack of, separability as many intangibles only have
value in combination with tangible assets; (3) difficulties with determining whether the asset originally recorded is being maintained or whether a new asset is being gradually substituted for it; and (4) greater uncertainty of whether their costs will bring about future economic benefits. Accounting theory recognizes the fact that these characteristics may in particular circumstances demand a different, more prudent treatment of intangible resources, especially that the recoverable value of intangibles is less reliable than for other fixed assets. See, e.g., Bierman and Dukes (1975), Nixon (1997), and Kothari et al. (1998) for the views of company accountants on these matters, expressing many of the concerns referred to here.

Furthermore, since intangible resources are difficult to verify, they could be used to manage or even manipulate reported earnings. A firm that benefits from boosting income, e.g., before it lists its stocks on a stock exchange, could be tempted to capitalize newly developed intangible assets, even though these assets fail to meet the asset recognition criteria. Financial analysts should therefore consider intangible assets as “red flags” (see, e.g., Hawkins, 1986).

The discussion above suggests that there are two ways in which prudence is affecting intangible resources and thereby the matching of intangible related costs with future benefits: (1) by not recognizing intangible resources as assets unless they satisfy certain, rather strict asset recognition criteria and thereby relying upon frequently expensing of costs that otherwise should have been capitalized, and (2) by frequent use of impairment tests with or without revaluation.

**INTANGIBLE ASSET ACCOUNTING: A PROPOSITION**

Generally, there are two non-exclusive ways of combining matching with prudence: (1) capitalization with amortization and impairment tests, and (2) expensing with conditional reversion.

**Capitalization with Amortization and Impairment Tests**

When an intangible resource is acquired or created and its future economic benefits are within “reasonable certainty,” so that the recognition criteria of an asset are satisfied, its cost should be capitalized and subsequently amortized over its useful life. If the expected value of the asset falls below its book value, the book value has to be written down immediately to its expected value (impairment test). Should the expected value later increase, the book value has to be revalued, but not above cost (i.e., acquisition cost minus accumulated amortization). If the intangible asset is correlated with other assets, the assets should be considered as a portfolio and hence written down and reversed on a portfolio basis. See also Blockington (1995), for an overview of some related treatments.

An example illustrates. Suppose a pharmaceutical firm has used $1,000 to develop a new brand. If the brand becomes a success in the market, its gross value is $10,000; if it becomes a failure, its gross value is $0. Assuming that the probability of success is 50 percent, its expected gross value is $5,000 and its net expected value is $4,000. If 50 percent is within “reasonable certainty,” the firm should capitalize the brand at $1,000,
and if its useful life is 10 years, amortize $100 a year (assuming that linear amortization is appropriate according to expected cash flow).

Suppose that in the subsequent period, the firm observes no benefits from the brand and realizes that the value of the brand is $0. Then the book value of $900 should be written down to $0. In this way, information is communicated effectively from the firm to, say, its investors. The capitalization of the development costs of $1,000 in the first period reflects the expectations of future economic benefit, and the first year’s amortization of $100 reflects matching with revenues. The matching is imperfect as the revenues have yet to be realized. Whereas the loss of $900 in the second period reflects the unfulfilled expectations.

This way of recognizing intangible assets is identical to that of fixed tangible assets, except that the impairment test in practice is between the carrying amount and the recoverable amount (see, e.g., IAS 36 Impairment of Assets for further details). Accordingly, when the future benefits of intangible assets are within “reasonable certainty” so that the ordinary criteria for asset recognition are valid, then intangibles should be accounted for as other fixed assets.

If an intangible asset is recognized and capitalized in the balance sheet, the FASB, the ASB, and the IASC have all chosen to test for impairment, with or without an option to reverse to costs if the value later increases. In this way, they are combining matching with prudence.

**Expensing with Conditional Reversion**

When an intangible resource is acquired or created, but its future economic benefit is beyond “reasonable certainty” so that the ordinary criteria for asset recognition are not valid, its costs should be expensed in the period in which they were incurred. The costs should be expensed even though the expected value of the intangible resource is positive (conservatism). If, in a subsequent period, the future economic benefits start to flow and thus become within “reasonable certainty,” the previously expensed costs should be capitalized and amortized over its remaining life (cf. Lev and Zarowin, 1999). The capitalization should be performed using the original acquisition or production costs with the deduction of accumulated amortization from the time of expensing to the time of capitalization. The reversion of previously expensed costs is not a violation of the historical cost principle, as the reversion is limited by costs.

Capitalizing previously expensed costs creates an income that should be recognized in the period when the future benefits from the intangible assets are expected with “reasonable certainty.” In this way, the ex post error made by not capitalizing the intangible asset in the balance sheet would decrease earnings in the period in which its costs are expensed, and increase earnings in a subsequent period when its future benefits are recognized with “reasonable certainty.”

An example illustrates. Suppose a pharmaceutical firm has used $1,000 to develop a new brand. If the brand proves to be a success in the market, its gross value is $100,000; if it becomes a failure, its gross value is $0. Assuming that the probability of success is 5 percent, its expected gross value is $5,000 and the expected net value is $4,000. If 5 percent is below “reasonable certainty” so that the asset recognition criteria are not met,
the firm should expense the cost of $1,000 when incurred. If, the following year, the firm becomes certain that the brand is a success, the firm should capitalize $900 (which equals the development cost of $1,000 with the deduction of the previous year’s amortization of $100, assuming that the useful life of the brand is 10 years). The earnings are reduced by $1,000 the first year, increased by $800 the second year, and decreased by $100 the next 8 years to match the large revenues created by the brand.

In this way, information is effectively communicated from the firm to, say, the stock market. The fall in earnings in year 1 reflects the fact that the firm is taking on a risky investment; the rise in year 2 reflects the resolution of uncertainty, and the fall in earnings in the next 8 years is matched with the revenues produced by the brand. Over the 10-year period, the higher variance in earnings would effectively reflect and, hence, signal the ex ante risk taken by the firm. This is consistent with, for instance, Barth and Clinch (1999) who found that revalued (i.e., impaired and reversed) intangible assets are highly value-relevant.

None of the standard-setting organizations FASB, ASB, or IASC are currently recommending entities that are expensing the costs of intangible resources, to capitalize some of the costs in a later period if the asset recognition criteria then are satisfied. As long as the criteria are not met when the costs are incurred, they are just recommending the entities to expense the costs—not to capitalize some of the costs later on. As expensing of, say, development cost could be seen as capitalization with an immediate write-off to zero, it should be consistent with capitalization combined with amortization, impairment, and restoration—the method chosen when the asset recognition criteria are satisfied. It makes little sense not to allow capitalization of previously expensed costs when re-capitalization of previously written-off assets are required or permitted (e.g., by the ASB and the IASC). The reversion should be seen as a change of estimate, and hence be recognized as an income in the period where the estimate is changed (e.g., IAS 8 states that a change in accounting estimate should be reflected prospectively, but the IASC has not fully implemented this view). According to the FASB, restoration of previous impairment should not be permitted.

Combining Capitalization and Expensing

According to our view, the first method (called capitalization with amortization and impairment) could as a practical rule be applied to externally generated or acquired intangible assets, whereas the second method (expensing with conditional reversion) could be applied to internally generated or created intangible assets, since the economic benefits from internally generated assets are less reliable (cf. Lev and Zarowin, 1999).

A way of further limiting the use of conditional reversion is to require that in order to reverse previously expensed costs, the entity should initially disclose in its notes that a possible intangible asset has been created, but the extent of uncertainty requires that it should presently be expensed and not capitalized. By doing this, the entity has an off-balance sheet portfolio of potential intangible assets. Only in the circumstances where a possible intangible asset has been disclosed in advance and has been added to the portfolio of potential assets, should the entity be able to reverse previously expensed costs if, at a later period, the asset recognition criteria are satisfied. This
would limit the possibility to smooth or otherwise manage or manipulate income, since the entity cannot find any arbitrary costs that previously have been expensed and claim that these costs now give birth to an intangible asset.

In order to combine the two methods as proposed, the key variable is the definition of reliability in terms of what is “reasonable certainty” for capitalizing an intangible asset. Two approaches are possible.

1. The entities should determine what is “reasonable certainty” and state their choice in a footnote. Users of financial statements would then know whether the entity is conservative, i.e., expensing and then capitalizing if the investments in intangible assets turn out to generate future benefits, or liberal, i.e., capitalizing and then writing the investments down if their market values turn out to be less than their costs. This would affect the earnings quality of the entities.

2. Standard-setting organizations and other accounting regulators such as national legislators should agree upon a definition of “reasonable certainty.” If they define “reasonable certainty” to be 100 percent, they are in fact requiring the entities to expense the costs of intangible assets. If they define it to be 0 percent, they are requiring the entities to always capitalize the costs of intangible assets and then amortize or write them off immediately or in later periods. Presumably, the optimal policy lies somewhere in between, e.g., by requiring that an asset should be partly or fully capitalized as long as its expected net present value is positive and that the probability that its gross value is greater than costs, is above, say, 75 percent (i.e., “reasonable certainty” is above 75%). In addition, “reasonable certainty” could be differentiated among types of intangible assets, e.g., externally generated versus internally generated, with stricter requirements for the latter.

The major argument in favor of letting the entities themselves determine what should be expensed and what should be capitalized, is that they could better adjust the reporting to underlying economic realities. However, this could also be used to mislead, for instance, investors by capitalizing extremely uncertain investments in intangible assets in an attempt to boost stock market value.

The major argument in favor of letting standard-setting organizations and other regulators regulate the accounting choices is harmonization of accounting practices by firms, which could simplify the financial statement users’ interpretation process and reduce the risk of creative accounting. The cost of harmonization is that the entities become less equipped to report information so that investors and others could judge the entities’ real return on investment.

CONCLUSIONS

After having reviewed how intangible resources are treated by some standard-setting organizations and legislators, our impression is that intangible assets are accounted for too conservatively, e.g., by requiring immediate expensing of R&D costs or making recognition of intangibles created through R&D very difficult. This might, as suggested by recent empirical studies, hamper the value-relevance of financial statements.
To bridge the supposedly increasing information gap caused by the lack of intangible asset recognition, we do not propose to start capitalizing doubtful intangible assets, but to require that previously expensed intangibles should be capitalized in a later period when the criteria for asset recognition are met (cf. Lev and Zarowin, 1999). To limit earnings management, there could also be a requirement that in order to reverse previously expensed costs, the entity must have disclosed the possibility that an intangible asset is created at the time of initial expensing. This will, in our view, give better information signals to investors and other financial statement users and thereby increase the value-relevance of financial statements.

For instance, the expensing of R&D costs in the period in which they are incurred, is a signal that the expense does not meet the outlined asset recognition criteria, e.g., because the future benefits are too uncertain to be recognized. Later, if it turns out that the R&D costs have, within “reasonable certainty,” produced an asset that will generate future benefits, the costs (i.e., the initial development costs minus accumulated amortization from the start of the development project to recognition) should be capitalized and amortized over the remaining life of the asset. This gives the information, within the historical cost accounting system, that an asset has been created and its value (i.e., cost) has been recognized both as a reversed cost and as an asset. The variation in income due to the preliminary expensing and subsequent income recognition is a signal of risk.

Today, however, standard-setting organizations do not recommend that previously expensed costs related to intangible resources should be capitalized if, in a subsequent period, the criteria for an intangible asset are met. But in the future, we believe that standard-setting organizations should allow partial reversion of previously expensed costs if the criteria for capitalization are met, to increase the value-relevance of financial statements.

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