

ACADEMIC RESEARCH

Down for the Count

**Market Performance May Benefit
From Leaving Intangibles Unmeasured**

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THE 1990S WITNESSED EXPLOSIVE GROWTH IN COMPANIES' INVESTMENTS in intangibles such as research and development, brand equity, information technology, process engineering and human capital development. Such investments are essential in building a firm's competitive advantage and future profitability.

Yet current accounting practice fails to recognize them as assets. Expenditures on R&D are measured and reported as a line item on the income statement but are not recognized as assets on the balance sheet. Other intangible investments are not measured at all and remain commingled with a firm's operating expenses.

The situation raises a fundamental question about accounting for intangibles: Are regulators mired in arcane accounting principles, or are there valid reasons not to give specific accounting recognition to intangible investments?

CONVENTIONAL WISDOM

Conventional wisdom in the academic community holds that the failure to recognize intangibles has seriously undermined the relevance and usefulness of accounting reports.

Empirical findings demonstrate that accounting metrics such as book value and operating earnings correlate better with observed stock returns when estimated intangibles are capitalized and amortized than when they are expensed. The line of reasoning is that the capital market treats intangibles as assets, so accountants' reluctance to do the same contradicts the efficiency of the stock market and defies investors' informational needs, potentially resulting in the mispricing of firms' securities. This argument favors measurement and recognition of intangibles.

On the other hand, the Financial Accounting Standards Board contends that because intangibles cannot be measured with reasonable precision, any attempt to recognize them would open the door to earnings management and measurement errors, which undermine the credibility of financial reports.

LESS MEASUREMENT, MORE INVESTMENT?

In a study published earlier this year in the *Journal of Accounting Research*, we investigated the measurement of intangibles from a broader perspective. We incorporated the main concerns of both sides in the debate — the value relevance of intangible investments versus the inevitable measurement errors. The key question for our study was how the nonmeasurement or noisy measurement of intangibles affects firms' incentives to invest in them.

Previous studies have been silent about the effect of accounting measurement on firms' incentives to undertake intangible investments. We argue that an understanding of such incentives is crucial to accounting policy regarding intangibles.

Accounting rules are not neutral. They have real effects. When managers invest in intangibles, they are concerned not only with long-term strategic effects but also with how such investments affect current market valuations. If investment in intangibles adversely affects the accounting metrics to which the market responds, then the incentive to invest is diminished.

UNINTENDED CONSEQUENCE

Let's consider an accounting system in which intangibles are not measured and are left commingled with operating expenses. Under those circumstances, a firm's reported income measures its true operating profits less any expenditure on intangibles.

However, the nonobservability of intangibles does not mean that the market would price the firm as if its investment in intangibles were zero. In an efficient market, investors understand the value relevance of intangibles and form an unbiased assessment of the firm's investment in such activities. Their evaluation rests on observation of the firm's tangible investments and an understanding of managers' incentives to affect the firm's future profitability. The price that the market assigns to the firm reflects that collective judgment. This degree of rationality in beliefs may appear to be far-fetched, but empirical evidence has confirmed it.

Because the firm's reported income does not distinguish between operating profits and investment in intangibles, the market makes adjustments to the accounting report based on how it values the investment. The market then uses the adjusted number and its opinion of the firm's intangibles to shape expectations of future operating profits.

That process gives managers a strong incentive to reduce investments in intangibles. Accounting practices allow the cutbacks to be made without being directly visible to the market. As a result, a decrease in investment in intangibles flows directly to the bottom line, in effect raising operating profits. The market views higher operating profits as good news, causing the market valuation to rise.

The fact that a firm's investment in intangibles is nonobservable induces managerial myopia and hampers investment in those areas. However, the market is not fooled. The underinvestment is rationally anticipated, and the firm is priced accordingly. Thus, while there is no mispricing of the firm's securities, the firm's equilibrium price

and investments are lower, confirming the conventional wisdom that nonmeasurement of intangibles has negative consequences.

Can accountants remedy the underinvestment problem by measuring a firm's investments in intangibles? Consistent with FASB's concerns, we believe that such measurements are inherently imprecise. Three kinds of unavoidable measurement errors are associated with intangibles:

1. Because of the fuzzy boundaries between operating expenses and intangible assets, some operating expenses could be classified as intangible assets or vice versa.
2. Not all of the expenditures on intangibles turn out to be productive. The unproductive component is random and *ex ante* is difficult to separate from the productive component. Such inseparability implies that the random unproductive component would be erroneously classified as an intangible asset.
3. Attempts to distinguish between tangible and intangible components of a firm's investment will result in misclassifications between the two kinds of investment.

Our study shows that although all three measurement errors are detrimental, the first — misclassifications between operating expenses and assets — is the most important. This kind of error would be present in a firm's reported income but washed out in its reported net cash flow. Therefore, both reported income and net cash flow become important accounting metrics, and both are used to assess the distribution of future operating income.

Market valuations would assign positive weights to both accounting numbers. But valuations based even partially on current net cash flow create a disincentive for investment for essentially the same reason as the nonmeasurement of intangibles. The disincentive arises because investment decreases reported net cash flow, which is one of the accounting metrics to which the market assigns positive weight.

The larger the weight the capital market assigns to the firm's net cash flow, the smaller the incentive for investment. This weight in turn increases with the degree of

measurement errors in the firm's reported income. In general, any factor that impairs the credibility of a firm's reported net income — be it earnings management, poor quality audits, ambiguous accounting standards or another factor — decreases the role of reported earnings and increases the role of net cash flows in the market's valuation of a firm.

Such lack of credibility is enormously detrimental to the firm's shareholders because it creates a disincentive for many desirable managerial actions that would decrease the firm's net cash flows in the short run but provide significant future benefits.

WEIGHING THE CONSEQUENCES

Thus, regardless of whether intangibles are left unmeasured or are measured with noise, corporate managers have incentives to underinvest in them. Which accounting system is the lesser evil?

We found that when intangibles are not measured, the extent of underinvestment depends only on the technological parameters that determine the optimal proportion of tangible to intangible investments. If accountants measure firms' intangible investments, the extent of underinvestment depends critically on the degree of measurement errors.

Combining the two results, we concluded that measurement and reporting of intangibles are desirable only when two conditions are satisfied:

1. Intangibles can be separated from operating expenses with sufficient precision.
2. The importance of intangibles compared with tangibles in the firm's technology is sufficiently high.

In all other cases, the preferred accounting treatment is to leave intangibles commingled with operating expenses.

Because the two critical factors identified by our study vary across industries, a uniform accounting standard that is mandated for all industries and all publicly traded firms will hurt some and benefit others. There is no one-size-fits-all solution. As in most regulatory situations, regulators need to make difficult trade-offs among the preferences of different groups of economic agents.