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The World's Most Exciting Accountant

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The World's Most Exciting Accountant

NYU Professor Baruch Lev finds vast value in intangible assets.

by Art Kleiner

In 1994, an accounting professor named Baruch Lev at the University of California at Berkeley received a call from an aide to Joseph Lieberman, the Democratic senator from Connecticut. “Senator Lieberman has heard about your work on intellectual property,” said his staffer, “and we want to know more.”

As it happened, Professor Lev, who specializes in valuing trademarks and patents, had recently hit a turning point in his research. After performing a series of in-depth comparisons of corporate asset values (“book values”) and share prices, he had concluded that the financial reporting methods used by nearly all corporations — the methods codified by the Financial Accounting Standards Board (FASB) and required of public companies by the Securities and Exchange Commission (SEC) — were giving “exactly the wrong impression” of the real comparative worth of corporations. In growth industries, in particular, the accounting numbers consistently overstated the value of physical assets (like buildings and machinery) and consistently under-

estimated other assets, especially the so-called intangibles that were, in the early 1990s, just coming to be seen as critical sources of corporate competitiveness. These assets include research and development, intellectual property (especially in the form of patents, trademarks, and copyrights), brand names (and the customer loyalty they engender), software, secret formulas, training and development, reputation (such as the reputation for good governance or environmental sustainability), unique team capabilities and work processes (now coming to be known as “organizational capital”), and any other distinctive form of corporate know-how.

Later, Professor Lev came to use phrases like “perverse distortions” and “worse than useless” to describe standard accounting practices, but at the time, he merely told the aide that they represented a “deficiency” because they omitted intangibles. The aide called back with a quick follow-up question from Senator Lieberman: “Where’s the harm?”

“What do you mean?” asked Professor Lev.

“The senator isn’t really interested in accounting issues,” the aide



elaborated. “He wants to know what damage there might be — to the economy, to society, to investors, or to institutions. And if there isn’t any kind of serious harm, why should we worry about this?”

Although Professor Lev has given his fair share of expert testimony on the harm caused by corrupt and careless accounting practices in the last decade, he says the phone call from Senator Lieberman’s office sparked a “profound change” in his thinking about the scope and severity of the harm caused by conventional and legal accounting practices.

Since then, first at Berkeley, then as dean of the business school at Tel Aviv University, and now at New York University’s Stern School of Business (where he is the Philip Bardes Professor of Accounting and Finance and the Director of the Vincent C. Ross Institute of Accounting Research), Professor Lev has devoted much of his time to exposing the harm in prevailing accounting rules and pushing to have them changed.

Maverick Measurer

Most corporate managers probably haven’t heard of Baruch Lev. Policymakers and academic accountants know him, however, as one of the leading advocates for reforming the established methods for valuing corporate activity. Loosely known as “accounting for intangibles,” this new school of thought developed in parallel to such accounting and performance measurement innovations as Activity-Based Costing and the Balanced Scorecard. (See “What Are the Measures That Matter?” by Art Kleiner, *s+b*, First Quarter 2002.) As Jonathan Low and Pam Cohen Kalafut point out in their book

Invisible Advantage: How Intangibles Are Driving Business Performance (Perseus, 2002), the movement evolved naturally, starting in the late 1980s, from the growing recognition of the hidden value in such business assets as corporate knowledge, brand value, R&D, and social responsibility. Because these assets had never been stated on most corporate balance sheets, their contribution to individual businesses had remained invisible, and the overall value of the U.S. economy had been understated in most estimates by billions or even trillions of dollars. This had led to poor decisions: For example, businesses typically invested far less in training and brand development than they might have if their value showed up with more weight on the balance sheets.

The movement to account for intangibles took on fad status during the technology bubble years of the late 1990s, and has lost some momentum as attention has turned to dealing with accounting abuses. Nonetheless, Professor Lev’s basic argument has never lost its relevance, or importance. His ideas for new accounting methods and the revision of longtime standards are likely to receive renewed attention as senior executives are compelled to develop knowledge assets, outsource more, and pursue other imperatives of global competition that require them to identify all the potential sources of value in their firms, and then make those sources tangible.

“Baruch Lev’s pioneering work on intangibles has been a wake-up call for the entire profession,” says Berkeley Economics Professor Hal R. Varian, coauthor, with Carl Shapiro, of *Information Rules: A Strategic Guide to the Network Economy* (Harvard Business School Press,

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1998). In the accounting world, “he has been pushing longer and harder than most on this particular issue.”

In particular, the NYU professor has become a kind of Cassandra figure to the prevailing regulators of corporate activity: the FASB and the SEC. He contends that the legal structure of accounting rules, as enshrined in Generally Accepted Accounting Principles (GAAP) and SEC regulations, is fundamentally flawed. “The rules haven’t been changed much since the invention of accounting 500 years ago,” says

<http://pages.stern.nyu.edu/~blev/>. But his clearest, most articulate statement appears in a letter he wrote to the Senate Commerce Committee in March 2002 as a follow-up to testimony he gave on the collapse of Enron. In that letter, he named four basic elements that are missing or understated in most estimates of corporate worth:

- **Intangibles.** The value of research and development, patents, trademarks, brands, supply chains, secret formulas, training and development, and many other non-

financial impact of the four elements, because their accounting systems don’t track them. Even when the numbers are available to managers, they are generally fiercely guarded from outside eyes, for fear of lost competitive advantage. The result, according to Professor Lev, is a “vicious circle of harm,” starting with poor-quality reporting of most of the unique capabilities and “leverageable” resources of the company.

“In most companies,” he told me recently, “you don’t get the vaguest idea of how much training was cut during the last three recession years. Companies don’t report anything about brand enhancement investment or R&D investment. They report information on technology expenditures, but they don’t break it down; you don’t know how much is hardware versus software, or how much is long term versus short term. Everything is buried in a single figure for general operating expenses — one huge garbage can.”

There are dozens of ways that the contents of that garbage can could be sorted out and differentiated. Indeed, much of Professor Lev’s work consists of finding measures of intangible investment — “inputs” like the money spent on training or research, and “outputs” like the value of patents or quality of new patents. The critical step is linking such measures to financial performance — especially to changes in revenues and share prices. To accomplish this, Professor Lev tracks changes in performance over time, and statistically compares the fluctuations to particular changes in investment or other measures of intangible worth. With enough of a sample base, this allows him to estimate the financial impact of a dollar invested in this particular

Professor Lev contends that the legal structure of accounting rules is fundamentally flawed.

Professor Lev. And they’re far from perfect. Every company, he argues, should have to disclose, in fine-grained detail, its assessments of future risks, its expenses in human development, its research costs, and other information about its investments in intangibles. Until then, investors will reward the wrong managers, and the economy will continue to spin off course.

In person, Baruch Lev is a trim, bespectacled man in his 60s who has the qualities you might expect in a maverick accounting professor: an informal style of dress and speech, overlaid by a cerebral and severe mien, with flashes of sardonic humor. He has laid out his position in a variety of books and articles. Several articles are collected in a recent anthology, *Intangible Assets: Values, Measures, and Risks*, coedited with University of North Carolina Professor John Hand (Oxford University Press, 2003). Others can be found on his Web site:

physical assets that show up only as expenses on the balance sheet;

- **Extended Enterprise.** The alliances, joint ventures, and partnerships that foster innovation in many companies;

- **Future Commitments.** The unexecuted obligations and promises that each organization must redeem in the future (for instance, Enron’s financial reports didn’t acknowledge its future obligation to make good on the losses sustained by its offshore partnerships);

- **Financial Risks and Prospects.** The value or liability inherent in financial risks that the company has embraced — for example, through the use of derivatives, hedge funds, and stock options — and in their vulnerability to changes in interest or foreign exchange rates.

Circle of Harm

Much of the time, managers and accountants aren’t even aware of the

company in, say, process redesign or brand redefinition.

Under this kind of analysis, commonly perceived liabilities — such as marketing commissions paid to build a customer base — are often revealed as assets. “When you walk into a Circuit City and buy a cell phone,” says Professor Lev, “the mobile phone carrier might pay \$200 to \$300 to the retailer. Because customers stay with a carrier three to four years on average, these commissions are investments. But they show up on the balance sheet as expenses — sometimes adding up to hundreds of millions of dollars,” thereby unfairly discounting the perceived value of the most customer-driven mobile phone companies.

In the “vicious circle of harm,” analysts and investors denigrate companies for making investments in productive intangibles. Their

spiraling down like this can lose the core of its competitive advantage without anyone’s being aware that there was ever any alternative.

Cost of Complacency

One of Professor Lev’s most intriguing examples of this spiral — but one that has gotten very little attention in the press — is his recent work on the decline of innovation in the chemical industry over the last 30 years. His findings are especially compelling because this has been one of the most fertile and creative periods in the history of materials science.

For most of its history, the chemical industry was an innovation leader. E.I. DuPont de Nemours and Company helped invent the modern research and development lab in 1903 with its famous Experimental Station (or “Ex Station”), where nylon, Lycra,

For the past decade or so, people in this industry have seen research labs atrophy, funding for new initiatives decrease, and a general spirit of financial hunkering-down. The number of patents awarded annually to chemical companies decreased during the 1990s — from 2,942 in 1989 to 2,722 in 1998. At the same time, according to Professor Lev, the chemical industry’s investment in basic long-term research eroded, with funds moving to short-term research designed to tweak features of current technology. Indeed, during the 10 years between 1989 and 1998, according to Professor Lev’s figures, R&D spending by major chemical companies remained basically flat (at \$3.25 billion), while R&D spending by major pharmaceutical companies increased, on average, by 22 percent per year.

Looking more closely, Professor Lev and his colleagues found that the R&D investment drove profitability — not the other way around. Analyzing changes in R&D investment against changes in operating income over the two decades from 1980 through 1999, they found that a dollar spent on research in the chemical industry yielded, on average, a rate of return of 26.6 percent, or 17 percent after taxes. To be sure, it typically takes seven years to realize the return, but the amount is enough to compensate for the risk that research will not pan out.

Moreover, companies in any industry that emphasize basic research — the kind in which researchers follow their own noses — appear to enjoy higher returns. In other words, having a relatively unfettered basic R&D function is a surefire way to prevent commoditization, as long as you can capitalize

Today’s prevailing corporate preference for applied over basic research may be an artifact of accounting rules.

stock price sinks and their cost of capital rises, which pressures companies to reduce spending in such intangible areas as R&D, marketing, and training. This erodes the company’s distinctive capabilities still further, which often forces it to compete on price instead of distinction. In other words, the company turns its products into commodities, and margins decline. As the cycle continues, the stock price descends further, pressuring the company to reduce investment in intangibles still more. A company

polyester, Mylar, and many other well-known modern substances were invented. Other major producers, like the Dow Chemical Company, were similarly innovative through the 1970s. But then lethargy set in. As Baruch Lev and David Aboody, an assistant professor of accounting at UCLA, put it in a recent report for the Council for Chemical Research, “Evidence suggests the presence of a certain complacency, and perhaps even disillusionment with investment in innovation in the chemical industry.”

on the results. Unfortunately, this causal link between research expense and financial return does not appear on any spreadsheet in most companies. Today's prevailing corporate preference for applied over basic research may itself be an artifact not of research priorities, but of accounting rules.

In 2001, Baruch Lev presented his data on R&D rates of return to the DuPont board. On the spot, they extended the session by an extra four hours. "These are important issues," he says one of the board members told him. "But [advocates of long-term research] usually come to us with fiction. You came with numbers." The following year, DuPont's new CEO, Charles O. (Chad) Holliday, set in motion a plan to revive the Ex Station and revitalize long-term research; *Forbes* published a detailed report of the plans in March 2003. But then in December, DuPont announced an aggressive move to trim \$900 million in costs, with no mention of long-term research at all.

It's hard to judge a company from such scattered details, and that's precisely Professor Lev's point. Without clearly reported, relatively standard data about a company's spending on research and development (or training, or supply chain management), we are blind about its true prospects. In such a situation, companies that want to gain the trust of investors must therefore promise to cut costs instead of pursuing a strategy that would serve everyone — employees, managers, customers, investors, and society — better in the long run.

By contrast, Professor Lev's research shows that companies that voluntarily document and disclose this kind of information unilaterally

tend to see profits rise and, especially, the volatility of their stock price decrease. Surprises, whether good or bad, startle and upset investors. Disclosure is an important way to diminish surprises. His primary examples in this argument are pharmaceutical companies, which have gotten used to disclosing information on research as part of their Food and Drug Administration approval processes — and which, according to Professor Lev, have seen their stock prices rise routinely after disclosures.

Even with evidence of the value in more detailed and transparent accounting, it's hard to get managers to collect and document the data needed to measure the value of intangibles. At one major multi-

2004. Scanning through the 62 letters of comment posted on the FASB Web site, it's easy to see why. Environmental groups and some investors praised the new rules for their openness; several corporations excoriated their "subjectivity." Business unit leaders don't really want outsiders (or even their own CEOs) scrutinizing intangible investments, which are traditionally left to their discretion. And although many CEOs espouse the value of paying attention to intangibles, it does represent another significant drain on their time.

Yet the hurdles and resistance to accounting reforms don't discourage Professor Lev. Indeed, he seems cheerful about the reform's long-run prospects. After all, he says, such

When Professor Lev presented his research on R&D return rates, DuPont launched a plan to revitalize long-term research.

national pharmaceutical company, Professor Lev tried to get performance and productivity results for people who had gone through a popular training program. The head of the training program blocked the study, apparently for fear of finding out that it wasn't actually making a difference.

Long-Term Battle

In the short run, Professor Lev's ideas may be debated but substantive changes to accounting rules are unlikely to take hold. A FASB research project on the disclosure of intangibles was "deactivated" in October 2003, and removed from the organization's agenda in January

simple data as sales and cash flow were once routinely hidden from outsiders, until stock exchange rules forced companies to disclose them. If he's right, then sooner or later regulators — or perhaps companies themselves — will force a similar kind of switch concerning the value of nonphysical assets. Even in the history of accounting, stranger things have happened. +

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