

**The kindness in** my father's eyes took nothing away from his serious message. "Never forget," he said sternly, "Businesses are built on trust, and trust starts with the balance sheet."

**BY MICHAEL MILKEN**

I was only 8 years old and, at first, didn't really understand what a balance sheet was. But I'd shown a knack for numbers and my father, a lawyer and C.P.A., encouraged this gift by teaching me how he analyzed different businesses. Soon, I was able to tote up the items in financial statements and, within a few years, began to appreciate their mathematical symmetry.

Later, while studying business at Berkeley, I investigated credit and discovered what looked like a paradox. Sovereign debt – the obligation of nations – was widely thought to have the least chance of default. In fact, it was more volatile and carried a greater risk than the debt of companies or even individuals.

Investors in government securities around the world had fared worse throughout history than those who had purchased the debt of businesses. And as the last three decades have shown, high-yield, non-investment-grade corporate debt (a.k.a., "junk") has provided a significantly better total return than the obligations of blue-chip companies. Generous yield spreads more than offset greater credit risk.

What was going on here? Why weren't balance sheets accurately measuring risk? This question led me to new theories of credit. It was clear that the true value of a business (or,

for that matter, of a household or a country) is often not fully reflected in the audited numbers because markets value assets that don't show up on the balance sheet.

#### **LOOKING IN THE REAR-VIEW MIRROR**

During my graduate studies at Wharton, I worked as a consultant at a leading investment banking firm and further developed my ideas on risk and access to capital. When I went to Wall Street in 1970, I found that those who controlled or influenced the allocation of capital were still making financing decisions based on the past rather than the future. A hundred-year-old sewing machine company was considered investment grade and could borrow money at favorable rates. But many forward-looking enterprises filled with talented management, bold ideas, valuable patents and the latest technology were too "speculative" to deserve financing. Capital was provided to a very narrow range of companies.

In those days, I had a 5-hour round-trip bus commute, giving me time to study thousands of financial statements. It became clear that the traditional yardsticks appropriate for the Industrial Age needed updating for what we now call the Information Age.

## FROM THE CHAIRMAN

When equity investors saw businesses organizing themselves to take advantage of changing tastes and consumer needs, they looked beyond annual statements and invested in those companies based on their business plans rather than their physical assets. The resulting increase in stock prices created real wealth; but traditional lenders discounted it and looked only to the “hard” assets on the balance sheet to cover their loans.

This shut out thousands of promising companies – including almost all minority-owned enterprises – from the capital to support their growth. They needed a new financial tool to replace traditional balance-sheet analysis and recognize what their assets could be worth in the future. This need gave birth to the concept of market adjusted debt ratios that recognizes value beyond the balance sheet. True to my father’s credo, I wasn’t rejecting balance sheets, but adapting them to reflect future potential. The financial technologies that evolved from this concept provided access to capital to thousands of worthy non-investment-grade companies, in the process creating millions of jobs.

To cite just one example, in the 1970’s MCI was a small company with a few hundred employees. Traditional lenders, looking at its balance sheet, weren’t interested in financing this upstart’s quest to take on the industry colossus, AT&T. But with the help of innovative financial tools, MCI financed its growth and created some 60,000 jobs.

Similar growth through new forms of financing created hundreds of thousands of jobs at such companies as Time-Warner, TCI and many others. In fact, since 1970, while the “investment grade” companies of the Fortune 500 have downsized, eliminating some three million jobs, small and medium-sized com-

panies have created more than 55 million new jobs in the United States. By contrast, in the same time period, Europe has not created a single net new job in the private sector, largely because smaller European companies haven’t had comparable access to capital and financial technology.

## HUMAN CAPITAL

What is the key asset not shown on the balance sheet? It sounds too simple, but a good part of it is people. In today’s knowledge-based economy, nothing equals the contribution of people.

Consider this: After the announcement several years ago that Motorola’s chairman, George Fisher, would become chairman of Eastman Kodak, Kodak’s stock shot up \$1.6 billion while Motorola’s fell \$300 million. Nothing changed on the balance sheet, but within hours the market saw a change of nearly \$2 billion in value.

The value of “human capital” is nowhere more obvious than in the business of sports. When a Michael Jordan joins the Chicago Bulls, the team win more games, attendance shoots up and team owners are able to raise ticket prices substantially.

Although not a new phenomenon, the importance of human capital is growing as we continue the evolution from an industrial society to a knowledge society. Early in this century, 60 percent of the cost of producing an automobile was in raw materials and energy. For today’s computer chips, it’s 2 percent of the cost. The key ingredient isn’t silicon, but intellectual and human capital.

## UPDATING M.A.D.

Today, as the accompanying chart shows, market-to-book values are at an all-time high. What are we to make of this? Some

would say that the market is simply irrational. Perhaps it is. Another interpretation is that the book value shown on balance sheets doesn't reflect intangible assets such as human capital, management information systems, software and digital distribution systems that are increasingly important in a knowledge-based economy.

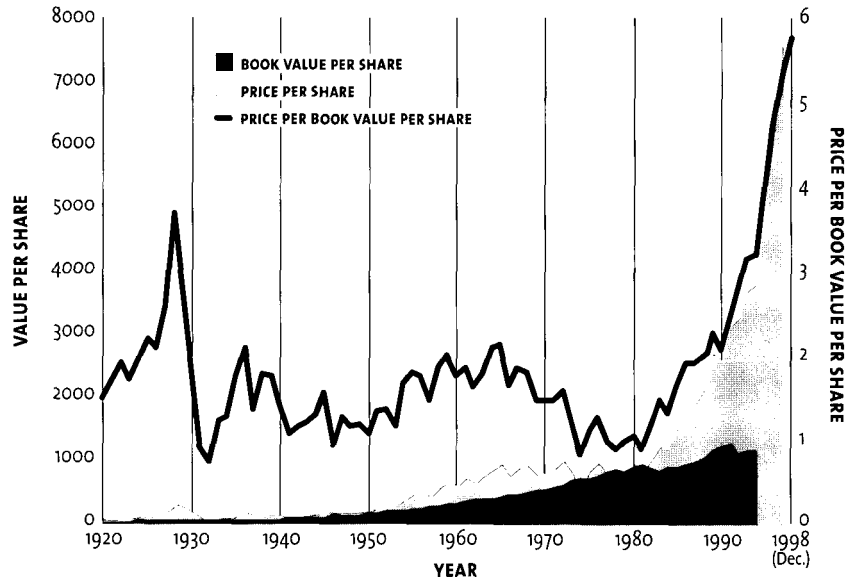
As this year began, the market valued Microsoft at approximately \$350 billion, more than 17 times its book value and more than \$12 million for each Microsoft employee. Clearly, the market has made the decision that Microsoft's human capital and other intangibles far exceed the hard assets on the company's balance sheet. In fact, investors are so optimistic about the future income of Microsoft, a company founded less than 25 years ago, that they have given it a market capitalization about equal to the gross domestic product of Russia.

Over the past 30 years, most job creation in the United States has occurred in companies that didn't exist or weren't considered investment grade 30 years ago. Market adjusted debt ratios proved to be a better way of predicting this than traditional balance-sheet analysis. But what is the right tool for measuring value and risk in the next three decades? I believe the answer will be found by those who develop the best under-

standing of what defines income-producing assets in a digital world. One thing seems obvious: those assets are not fully reflected on the balance sheets of modern businesses.

The Nobel Memorial Prize-winning economist Gary Becker has estimated that traditional balance sheet assets represent only 30 percent of the wealth of America; 70 percent of the wealth is in human capital. This human capital, combined with access to financial capital, technology, open markets and the rule of law, are the "raw materials" for a pow-

**MARKET-TO-BOOK RATIO**  
(Stocks in the Dow-Jones Industrial Average)



erful economy. Traditional balance-sheet assets – real estate, office buildings and factories, coal, oil, steel mills – have become less important.

With so much of the capital in the world off the balance sheet, we would do well to modernize financial reporting and build for the future by strengthening our education and training infrastructure. **M**

**In popular legend,** the Great Depression was the second act of a morality play – punishment for sins of the past, a hangover from the excesses of the Roaring Twenties. Sensible economists, however, have never subscribed to that view. On the contrary, they regard the Depression as an unnecessary tragedy: what might have been a more or less ordinary recession, soon forgotten, became a nightmarish slump thanks to the stupidity (or at least ignorance) of policy makers.

**BY PAUL KRUGMAN**

If only the Federal Reserve had not been preoccupied with defending the gold standard instead of the nuts and bolts economy. If only Herbert Hoover had not followed Secretary of the Treasury Andrew Mellon's advice to "liquidate labor, liquidate stocks, liquidate the farmers, liquidate real estate – purge the rottenness out of the system." Then, most of us believe, the catastrophe could easily have been avoided. Since we know better now, it can't happen again.

Or can it?

As recently as two years ago, like most of my colleagues, I was quite confident that while the age of economic crises was by no means past, 1930's-type crises, in which the world slumps simply because businesses and consumers spend too little, were obsolete. Economists and policy makers had learned the lessons of that decade and would never again perversely tighten monetary and fiscal policy in the face of recession.

Now I'm not so sure.

For one thing, many countries have tightened credit and reduced spending in the face

of recession – not because their leaders are stupid or ignorant, but because global capital markets leave them no choice.

Consider the plight of Brazil. The country has a problem: it is running a budget deficit that must be brought under control, though a cool look at the figures would suggest that the Government's solvency is not in any immediate danger. Still, markets have fixated on deficit reduction as a symbol of the Government's determination to act responsibly. So taxes must be raised and spending cut.

A tighter fiscal policy, however, will reduce overall economic demand. So, will the Government compensate by cutting interest rates in order to avoid a recession? Certainly not. To cut interest rates would be to risk capital flight, which would undermine the value of the currency.

Indeed, to defend the Brazilian real the cen-

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