



THE RETURNS TO ENTREPRENEURIAL INVESTMENT

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Why do entrepreneurs ignore the poor risk-return trade-offs of private equity investing?

Many entrepreneurs invest substantial amounts of money in their own privately held companies. Recent research suggests that such investment strategies result in a much less attractive risk-return trade-off than investing in publicly traded stocks.

Ask a random sampling of observers to describe entrepreneurs, and their responses might very well include words such as “innovative,” “enterprising,” and “adventurous.” Few people would describe entrepreneurs as “poorly diversified investors.” However, this description may be more accurate than one would expect.

In the recent study “The Returns to Entrepreneurial Investment: A Private Equity Premium Puzzle?” associate professor of finance **Tobias Moskowitz** and Annette Vissing-Jørgensen of Northwestern University’s Kellogg School of Management find that most U.S. household investment in private equity is centered in privately held firms in which the households are actively involved in managing the firm. Yet despite the high risk posed by this poor diversification in start-up companies, the returns to private equity are astonishingly low.

Moskowitz notes that the sheer volume of investment in privately held



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companies makes it a worthwhile topic to study. With approximately five million small businesses in the United States, the sum of private equity investments constitutes a slightly larger fraction of the total economy than the entire public equity market.

“When you say ‘entrepreneur,’ most people picture the kind of firms that seek venture capital,” says Moskowitz. “But those firms represent less than 1 percent of the overall private equity market. Our use of the term *entrepreneur* encompasses everything that’s not publicly traded, from gas stations and mom-and-pop stores to the bigger firms trying to go public. Despite their size in the economy, we know very little about the risk-return trade-offs of these entrepreneurs.”

To examine the reasons that many entrepreneurs hold poorly diversified portfolios, the authors compared investors in privately held firms with public equity investors who are likely to be poorly diversified—namely, investors in publicly held corporations in which they or family members work.

For public equity markets, the authors find holdings of stock in investors’ own publicly held companies to comprise only 10 percent of their total portfolios, compared with private equity investors’ allocation of 45 percent of their portfolios to their own privately held companies. Furthermore, investment in privately held firms tends to be concentrated in the hands of company managers, making the lack of diversification more severe.

“The tendency for people to invest in their own company stock is the most troubling aspect of the lack of diversification in public markets,” Moskowitz observes. “But even that behavior pales in comparison to many private equity investors’ portfolios.”

The Nonexistent Premium

To account for the disproportionate amount of assets that entrepreneurs invest in their own privately held firms, the authors searched for a “private equity premium.” The term refers to a gain in returns above that of public markets, which might explain why investors would risk having such a poorly diversified portfolio.

“On average, you would expect investors to be compensated for risking so much on their own companies, but this turns out not to be the case,” says Moskowitz.

Using data from the 1989, 1992, 1995, and 1998 editions of the Survey of Consumer Finances (SCF), Moskowitz and Vissing-Jørgensen examined returns on private and public equity investing over the period from 1989 to 1998. The

authors found returns on both private and public equity to be remarkably similar.

The authors addressed an array of potential biases that might have been inherent in their comparison. The most significant potential bias is the fact that many entrepreneurs do not pay themselves a salary. To account for this issue, the authors subtracted the estimated annual wages of those entrepreneurs not reporting salaries from earnings and found investment returns on private companies to be considerably smaller than those for publicly traded stocks.

Next, the authors tested the accuracy of their findings by deliberately overestimating the returns of private firms. They based the overestimation on the unrealistic assumption that proprietorships, partnerships, and S corporations (which don’t pay corporate taxes) don’t retain any earnings. Hence, actual retained earnings would be counted twice, as both dividend and capital gain. Even using these conditions, the returns on private equity investments still fell below those of the public market in two out of three of the three-year sample periods.

Private equity returns consistently equaled or fell below those of the publicly traded stock market in additional bias tests, even when the researchers included the possibility that tax evasion or underreporting of the value of private equity gains might explain the inability of private equity returns to exceed those of public equity.

Having shown that the public and private markets yielded similar returns from 1989 to 1998, the authors next turned to data sources from 1952 to 1999. Using equity data from the Federal Reserve Board’s Flow of Funds Accounts (FFA) and income data from the National Income and Product Accounts (NIPA), Moskowitz and Vissing-Jørgensen found additional evidence highlighting a similarity in the return on investments for private and public equity. Furthermore, when private equity returns were contrasted with returns from the smallest 10 percent of publicly traded firms, the authors found public stocks substantially outperformed private firms.

“The fact that returns to private and public equity investments were similar using two independent data sources, SCF and FFA/NIPA, is comforting,” says Moskowitz. “If there had been significant error, you wouldn’t find a relationship between these data sets.”

The Risk of Private Equity

Moskowitz and Vissing-Jørgensen argue that the risk-return trade-off assumed by an entrepreneur investing heavily in his or her own company is far worse than the trade-off in the pri-

vate equity index. In addition, this trade-off is much less appealing than that of the index of publicly traded stocks.

One of the greatest risks associated with entrepreneurship is the potential for business liquidation and the loss of every dollar initially invested in a fledgling enterprise. The survival rate of private firms is only 34 percent over the initial decade of the organization's existence. Thus, two-thirds of private firms fail or liquidate within the first 10 years.

What percentage of an initial investment does an entrepreneur stand to lose? Using data from 2000 provided by the U.S. Small Business Administration, the authors conclude that the founder of a new private company faces a 10 percent chance

“If potential entrepreneurs don’t understand the risks at all, maybe we shouldn’t encourage them to start new businesses. Instead, we should educate them about the nature of the risks.”—Tobias Moskowitz

of losing all of his or her investment. However, even among entrepreneurs whose businesses survive, almost one in three would have been better off investing in an index of all publicly traded companies than in their own privately held companies.

Why Become an Entrepreneur?

With the poor risk-return relationship clearly documented, the question persists: Why do people become entrepreneurs, risking so much of their own money?

First, entrepreneurs may have a greater tolerance for risk. Though entrepreneurs make enormous investments in their own firms, the remainder of their portfolios resembles those of nonentrepreneurs, even among the wealthiest 5 percent of the population. If entrepreneurs weren't so risk tolerant, Moskowitz notes, they would be expected to fill the remainder of their portfolios with highly conservative holdings to offset the risk of investing in their own firms.

A second, though less likely, explanation may be financial gains apart from investment returns. Although tax evasion motives and salaries were taken into account in their calculations, the authors acknowledge they may be missing other perquisites, such as company cars or lavish vacations.

“We examine how large these other monetary benefits to entrepreneurship would have to be to deliver the higher private equity return that theory predicts,” says Moskowitz. “We

find that those other monetary benefits would have to be implausibly large.”

A third possible factor might be entrepreneurs' nonfinancial lifestyle benefits, such as the flexibility and autonomy of self-employment. This is likely to be a significant motivating factor.

A fourth explanation may be what the authors refer to as “a preference for skewness.” Moskowitz explains that those with a preference for skewness envision themselves as the next Bill Gates, yet recognize the long odds of such a scenario.

A fifth and final factor may be overoptimism. In contrast to entrepreneurs with a preference for skewness, overoptimistic entrepreneurs believe they have a higher probability of being successful than in reality.

“For those entrepreneurs with a preference for skewness, they understand the risks but decide to go for it anyway,” notes Moskowitz. “On the flip side, entrepreneurs who are overoptimistic simply don't understand the risks. They say, ‘I know most new companies fail, but that won't happen to me.’ Overopti-

mism is a misperception of risk.”

The authors suggest that distinguishing among the motives for entrepreneurship may have important implications for policymakers. For example, entrepreneurs who envision themselves to be a latter-day Henry Ford or Bill Gates are seduced into entrepreneurship by tiny but not insurmountable odds of amassing enormous sums of money. For entrepreneurs who understand the risks but are just making bets, policymakers should consider the effect of progressive taxation of high-income individuals, which may dampen incentives to launch new companies.

“If potential entrepreneurs don't understand the risks at all, maybe we shouldn't encourage them to start new businesses,” says Moskowitz. “Instead, we should educate them about the nature of the risks.” ■



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