

ARTICLE REVIEW

Impact Investing

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Impact investing was a generally adopted investment strategy that not only aimed to gain financial returns from investment but also attempted to create positive and measurable social or environmental impacts through the investments being made. Investors who followed the impact investing strategy would take into consideration the company's commitment and engagement in social and environmental responsibility. Impact investing strategy challenged the return-based investment strategy, with observations that many institutional investors, including banks, capital funds and public holding finance companies, were entering the impact investing market. However, whether and to what extent investors were willing to trade their pecuniary gains for the positive social or environmental impacts remained to be explored.

The article "*Impact Investing*" is 57 pages long and is published in *the Journal of Financial Economics*, a leading peer-reviewed academic journal in finance economics, which offers an intellectual forum for publication of research in the area, focusing on the highest quality papers. Authored by Brad M. Barber, Adair Morse and Ayako Yasuda (2021), the article addresses the above-mentioned issue of impact investing to examine whether impact investors are willing to pay for the

nonpecuniary characteristics of investment and accept lower expected financial returns.

Brad M. Barber is a Professor Emeritus of Finance at the Graduate School of Management, University of California, Davis. He is an internationally recognized authority in investor psychology, stock analysis, online trading, and mutual funds and one of the 50 most cited financial economists in the world. Barber's research has been honored twice by UC Berkeley's prestigious Moskowitz Prize for Socially Responsible Investing. (<https://gsm.ucdavis.edu/faculty/brad-m-barber/>) Adair Morse is an Associate Professor of Finance at the University of California, Berkeley, while Ayako Yasuda is currently Professor of Finance at the University of California, Davis, and is also a member of the National Bureau of Economic Research, United States.

To investigate their research focus, the authors provided both ex-ante and ex-post evidence from the financial market, comparing the pecuniary gains that investors received by separating the market of Venture Capital (VC) and growth equity funds into the impact investing market and the traditional VC markets. The authors aimed to answer three essential questions: (1) whether impact investors intentionally forego financial returns in exchange for the positive social/environmental impact, (2) whether

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such intentions depend on the source of capital, and (3) whether certain attributes of the capital, such as their missions and ownerships, would affect the impact investors' intentions.

A sample of 24,000 venture capital and growth equity investments by 3,500 investors was examined. The authors adopted a three-step technique in order to classify whether a fund was impact investing or traditional venture capital. The first step was to form a potential list by combing (1) a text search from Factiva, (2) the list of impact funds acquired from the impactBase, ImpactAsset, Preqin and MRI Database, and (3) the list of funds which focus on investing in countries with GDP per capita lower than 1,400 US dollars. Step two was to read the descriptions of each fund and its families to screen out the funds that do not explicitly state their dual objectives. The last step was to restrict the sample of funds to be between 1995 and 2014. The three-step procedure had identified 159 out of 4,569 funds to be strictly impact funds.

Descriptive statistics of 4,500 traditional venture capital funds and 159 impact investing funds showed that the traditional funds generated a higher mean internal rate of return than the impact investing funds, while the impact investing funds had a smaller standard deviation of returns, potentially indicating a lower risk. The authors also found that impact investing funds were likely to focus on energy industry or were without a focus, while the traditional venture capital funds focused more on the areas of IT, health care, and media communication.

The authors then performed reduced-form regressions on fund performance to address the intentions of impact investors in foregoing financial gains in exchange for the positive social/environmental impacts, or their willingness to pay for the positive impact. Three different performance indicators were adopted in the analysis: the internal rate of return (IRR), the value multiple (VM) and the average percentile rank of a fund, relative to its vintage year and region cohort (RANK). The authors created three reduced-form regression models for the analysis. The first

model contained only the dummy variable for impact investing; the second model controlled for the fund size, fund sequence number, and the vintage year; the third model added controls for industry focus and geographic location. The authors also attempted to include the vintage year – geography – industry fixed effects by developing three extended models. Results from the reduced-form regression confirmed that the impact investing funds underperformed the traditional venture capital fund by 2.5 to 3.7 percentage points in IRR, or 13 to 18 percentile ranks, which provided ex-post evidence for investors' willingness to forego financial gains for positive impacts.

In the next section, the discrete hedonic choice model was applied to estimate the ex-ante willingness to pay for impact investing characteristics. The authors assumed that each investor would form their expected return by looking at the return in the past, where the expected return in each vintage year was a function of the performance of the prior funds managed by the same venture capital and the performance of assets in the vintage pool. The results showed that the willingness to pay for impact varied greatly across the funds. After categorizing the investors into nine categories based on their ownership characteristics, the authors discovered that development organizations, financial institutions, and public pensions, were the investors that exhibited the strongest willingness to pay for impact; meanwhile, the investors who faced political or regulatory pressures, such as banks or insurance companies, tended to have higher willingness to pay for impact, whereas laws or regulations that discourage the sacrifice of financial returns would reduce the investors' willingness to pay for impact. This finding indicated that shifts in the legal interpretations of the investors played a key role in their willingness to pay for impact.

In conclusion, this article is well written and well structured, packed with convincing evidence to support the authors findings. The two figures at the end (pp.56-57) provide a clear summary of the distribution of categories in impact investing, and an

interesting comparison between traditional VC and Impact Funds. The article is highly recommended for general investors and traditional investors, as well as impact investors such as financial institutions, development organizations, foundations, institutional investors, banks, capital funds, and public holding finance companies.