

# Growing Jobs and Getting Returns: Impact Investing Through Entrepreneurs

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## ABSTRACT

*We analyze the performance of publicly-traded, entrepreneur-managed companies in the United States using monthly stock returns over the time period January 2006 through November, 2011. The portfolio of 109 firms that fit this category (minimum market capitalization of USD 200 million) generates a compound annual return of approximately 14 percent for the time period. This return significantly outpaces the annual returns for benchmarks such as the Russell 2000, Russell 3000 and Standard and Poor's 500 Price Index. Moreover, the US entrepreneur-managed companies provide considerably stronger job growth compared to non-entrepreneur US publicly-traded companies. We surmise that US entrepreneurial companies may be a rare breed of organizations that contribute both job growth and shareholder returns.*

**Keywords:** *Entrepreneur, Family Control, Founder, Impact Investing*

## INTRODUCTION

There is evidence assembling in the finance literature which finds an association between the equity return performance of firms, family ownership and management characteristics. Our paper adds to the literature by also examining the rate of job growth for US publicly-traded entrepreneurial companies. We find that our portfolio of US entrepreneurial companies contribute job growth at a much faster rate than non-entrepreneurial companies, and thus have significant social impact within their regions of operation. We conclude with the notion that investors in publicly-traded entrepreneurial companies can achieve both returns and social impact.

## LITERATURE REVIEW

We present a summary of salient articles that address the theories associated with the investment performance of family-controlled firms as well as a related aspect to Socially Responsible Investing (SRI) known as Impact Investing. We have two distinct, but related hypotheses that address both investment return and job growth. The combined effect, if successful, falls within the purview of Impact Investing.

Villalonga and Amit (2005), and Barontini and Caprio (2006) provide empirical data to support premium returns for firms run by the founder chief executive officer (CEO) rather than by second generation CEOs. On the other hand, McConaughy, Walker, Henderson, and Mishra (1998), Fahnenbrach (2003) and Livingston (2007) discovered better stock returns for corporations operated by descendants versus the founder. Moreover, Smith and Amoako-Adu (1999) indicate that nepotism is a detriment to performance.

Comparing the stock returns of founder-CEO operated companies to that of non-founder CEO organizations McVey and Draho (2005), and Cox and Shulman (2008, 2009a) present evidence of greater achievement by founder-CEOs. In contrast, Himmelberg, Hubbard and Palia (1999), Jayaraman, Khorana, Nellin and Covin (2000) and Demsetz and Villalonga (2001) demonstrate that founder-CEOs do not outperform non-founder-CEOs. More specifically, Shulman and Cox (2009b, 2010a, 2010b, 2011) provide statistical support for superior returns for founder-CEO operated firms in real estate investment trusts as well as the information technology industry and Canadian domiciled entrepreneurs.

There are several theories that support why family controlled firms may accomplish superior investment results. Wang (2006) posits the alignment effect whereby focalized family ownership enables family members to maintain a long-run connection in the entity. Family members have unique incentive to perpetuate the reputation of the family name engendering continuing employee loyalty. Chen and Lee (2008) show that family-owned ventures experience higher asset returns contrasted to non-family owned firms. Further, they find a negative relation between employee remuneration and family ownership.

The literature is well established on the investment performance of SRI, though is less clear on the direction of a related, but relatively new category of Impact Investing. Domini (2001) characterizes the field of SRI and, among others, provides investment vehicles by which individual and institutional investors can pursue SRI strategies. The SRI investment options include both positive and negative screens attributed to social awareness. The investment performance of SRI vehicles has been mixed. Bello (2005), Rudd (1981), Grossman and Sharpe (1986), Hall (1986), Diltz (1995) among others, note how the ethical and moral screening of companies impose an additional set of constraints that contribute to a deterioration in long-term portfolio performance. Due to a variety of reasons, they find that portfolio performance is impaired.

O'Donohoe, et. al. (2010), Wallace (2011) and Stern (2011) discuss an emerging investment field known as Impact Investing. In their discussion they acknowledge that while the true definition is still being determined, investor interest has been piqued to include both return and social benefit when examining investment portfolio attributes. As part of their categorization, O'Donohoe (2010) includes job growth as an attribute of social impact. In this context, we explore the potential to include a new investment category, identified as US publicly-traded entrepreneurial companies, and assess both portfolio return and job creation features.

### **HYPOTHESIZED MODEL**

We explore the characteristics of our entrepreneur sample of publicly traded companies and distinguish from the non-entrepreneur population. Among other relevant criteria, the entrepreneurial companies often have a stronger family bias compared to the non-entrepreneur companies. Using methodology similar to Shulman and Cox (2010a) we select entrepreneur-led companies from US markets according to the following characteristics: (a) ownership stake among managers, (b) return on invested capital, (c) sustainable growth, (d) selling, general and administrative expense, (e) financial leverage, (f) dividend payout ratio, (g) executive turnover and (h) total executive compensation.

Our first hypothesis is:

H<sub>0</sub>: US Entrepreneur-Controlled Firms Exceed Stock Market Benchmark and Generate Risk-Adjusted Returns

Our second hypothesis is:

H<sub>0</sub>: US Entrepreneur-Controlled Firms Experience a Rate of Job Growth that Exceeds Market Benchmarks

### **DATA AND METHODOLOGY**

The time period for the study, January 2006 to December 2011, includes both bull and bear stock markets. The financial characteristics for items (b) through (f) are gathered from Compustat. The Securities Exchange Commission (SEC) Edgar database provides corporate filings for characteristics (a) and (g). We employ ExecuComp for characteristic (h). We gather monthly stock returns primarily from the Center for Research in Security Prices (CRSP) and include missing returns with data from Capital IQ. All companies included in our dataset meet a market capitalization minimum of \$200 million (small, mid and large capitalization companies). We exclude nano and micro capitalization companies. For the six year period our filters provide a US market entrepreneur portfolio of 112 stocks. After compiling the list, we compute returns on an equal weight average basis in U.S. dollars.

Benchmarks were selected to compare to the US Entrepreneur Fund from the perspective of: (1) American small stock investor represented by the Russell 2000 Index, (2) American midcap investors benchmarked to the Russell 3000 Index, (3) American large cap blue chip investors utilizing the Standard and Poor's (S & P) 500 Price Index and (4) a

world investor using the MSCI World Index – Gross. In addition to the average return a number of other metrics are computed to diagnose the robustness of the results.

The Value Added Monthly Index (VAMI) shows the growth of a hypothetical \$1000 investment and is computed as: Current VAMI = Previous VAMI x (1 + r), where r is the current rate of return in decimal form.

The standard deviation of the monthly returns is provided as one of the measures of risk taking the sum of the squared deviations between the returns and the average divided by the number of months (time) less one.

The Sharpe ratio (SR) is a risk-adjusted measure as shown in the following formula:

$$SR = \frac{\bar{R}_p - r_f}{\delta_p}$$

= average portfolio return  
 $\bar{r}_f$  = risk free rate  
 $\delta_p$  = portfolio standard deviation

The kurtosis is the fourth moment around the mean whereas the standard deviation is the second (squared) moment. The Kurtosis represents the thickness of the tails in the return distribution. High (low) kurtosis translates to thick (thin) tails and is a favorable (unfavorable) investment attribute.

Skewness is the third moment around the mean similarly calculated as the standard deviation but to the cubed (3<sup>rd</sup>) power. A positive skewness is preferred as it indicates more positive outliers.

The maximum drawdown represents the losses associated with the most extreme bear period. The maximum drawdown percentage expresses the maximum drawdown as a percentage. The maximum drawdown length is the amount of time it took to incur the heaviest losses. The maximum drawdown recovery length measures the amount of time to gain back the heaviest losses. The maximum drawdown peak date is when the portfolio was at its highest value before experiencing its biggest decline. The maximum drawdown valley date is the point in time when the fund value had suffered its biggest descent.

The Sortino Ratio is a downside risk measure, similar to the Sharpe Ratio, measuring the standard deviation when the investment falls. It is computed as:

$$Sortino\ Ratio = \frac{\bar{R}_p - r_f}{\delta_d}$$

where  $\delta_d$  is the standard deviation of negative asset returns.

Investors prefer lower volatility on the downside and prefer higher volatility when the investment rises.

Jensen's alpha  $\alpha_p$  is calculated as:

$\alpha_p = \bar{R}_p - \beta_p(\bar{R}_m)$  where  $\beta_p$  is the beta of the portfolio p and  $\bar{R}_m$  is the expected return of the market. Beta is the sensitivity of an investment to the return of the market. This is computed by dividing the covariance (of the investment with the market) by the variance of the market. The covariance is the correlation of the investment (i) to the market (m) multiplied by the standard deviations of i and m.

The information ratio (IR) is

$$IR = \frac{R_p - R_i}{S_{p-i}}$$

where  $S_{p-i}$  is the tracking error.

The tracking error is the standard deviation of the difference between returns of the portfolio (p) and the returns of the index (i). The numerator of the IR examines the excess returns of the portfolio net of the portfolio index or benchmark. Thus, the numerator of the information ratio is the active premium. The tracking error will be positive when the fund manager outperforms the benchmark.

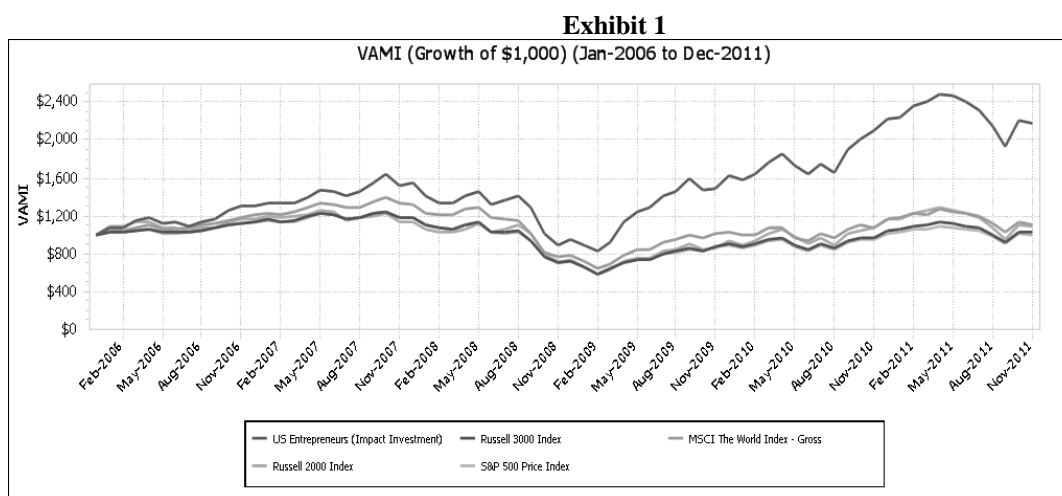
The market capture ratio (MCR) measures the investment manager's relative performance against a benchmark in positive or negative markets. The investment style varies among managers and the MCR provides insight to how a manager will perform in varying market conditions. For example, a conservative investment manager or investment style would be expected to perform better than the benchmarks in poor market conditions (e.g. decline less than the benchmarks) but underperform in strong market conditions (e.g. appreciate less in positive markets). This style would probably also provide lower overall portfolio variance. Alternatively, an aggressive manager would provide opposite performance characteristics (e.g. underperform in weak market conditions and outperform in positive markets). The definition for MCR = (Manager's Return)/(Index Return) x (100).

In testing our second hypothesis we collected employment data from 1599 publicly-traded US companies that disseminate full-time employment information and have a market capitalization greater than \$200M. Of the total sample of 1599 companies, 112 fulfill our entrepreneur criteria. We place the remaining 1487 companies in the non-entrepreneur category and compare the annual job growth for the two groups for the years 2006, 2007, 2008, 2009 and 2010 as well as the cumulative job growth between the two groups for the period 2005-2010.

Due to the fact that corporate reports simply disclose total full-time employee head count, irrespective of corporate action (e.g. merger/acquisition), it is difficult to determine how much the change in employment may be due to activity of this type. Consequently, organizations that acquire another company will (typically) report more employees at year-end despite the fact that consolidations generally result in corporate firings and a net job loss. Since our purpose, in part, is to assess new job creation, we examine each public organization on a (time consuming) company-by-company basis and eliminate those experiencing significant M&A activity (set at an arbitrary 20% of total asset basis). Of the 75 companies that we remove, 68 represent non-entrepreneur companies and 7 represent entrepreneurial companies. Our final dataset includes 1419 non-entrepreneurial and 105 entrepreneurial companies.

## RESULTS

Across the entire six years of the study the US entrepreneurs had a cumulative value appreciation (or VAMI shown in Exhibit 1 assuming a beginning capital value of \$1,000) that increased at approximately twice the rate compared to the Russell 3000 Index, Russell 2000 Index, S&P's 500 Price Index and MSCI World Index (all of which had a VAMI around \$1,000).



The dominance of the US Entrepreneurs, compared to the leading benchmarks, becomes clearer when viewing the trailing returns from Jan-2006 to Dec-2011. Exhibit 2 shows that the US entrepreneur portfolio performed well above the comparable benchmarks with an annual compounded return of approximately 14% (actual 13.99%). The benchmarks provided annualized returns ranging from the MSCI World Index yielding 1.64% to the S&P 500 Price Index generating -0.02%.

**Exhibit 2**

Trailing Periods - Rate of Return (Jan-2006 to Dec-2011)*	Last 1 Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6 Years*
US Entrepreneurs (Impact Investment)	3.65%	20.58%	34.96%	10.70%	13.99%
Russell 3000 Index	4.96%	7.70%	12.93%	-1.94%	0.34%
MSCI The World Index - Gross	2.02%	4.25%	12.96%	-1.41%	1.64%
Russell 2000 Index	1.43%	12.78%	15.94%	-1.27%	1.55%
S&P 500 Price Index	5.62%	6.68%	11.64%	-2.30%	-0.02%

Exhibit 2 also provides the trailing period returns for the past 1, 2, 3, 5 and 6 years\*. US entrepreneurs exceed the benchmarks for all time periods except the trailing 1 year period (Dec 2010 to Dec 2011). During the preceding 12 months, both the S&P 500 Index at 5.62% and Russell 3000 (4.96%) generated returns above the US entrepreneur portfolio rate of 3.65%. Irrespective of the prior 1 year, the US entrepreneurs were well above all of the benchmarks. Exhibit 3 (below) which shows full calendar year returns from 2006-2010, reveals further insight to the explanation. The 112 US entrepreneurs in our study produced an exceptional return in 2009 yielding 71.45%. The 2009 return for US entrepreneurs more than doubled, and in some cases tripled, the returns of the comparative benchmarks. However as Exhibit 3 also shows, in 2008 US entrepreneurs generated one of the groupings worst performance with an annual return of -38.84%. Only the MSCI World Index-Gross provided a lower return in 2008 at -40.33%. Other benchmarks provided slightly better, albeit poor returns, ranging from -34.80 to -38.70%.

**Exhibit 3**

<b>Calendar Year Returns - Compound ROR (Complete Years only)</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
US Entrepreneurs	36.25%	71.45%	-38.84%	19.17%	30.34%
Russell 3000 Index	14.75%	25.46%	-38.70%	3.29%	13.66%
MSCI The World Index - Gross	12.34%	30.79%	-40.33%	9.57%	20.65%
Russell 2000 Index	25.31%	25.21%	-34.80%	-2.75%	17.00%
S&P 500 Price Index	12.78%	23.45%	-38.49%	3.53%	13.62%

Risk measures and risk-adjusted performance are shown below in Exhibit 4. Not surprisingly, the US entrepreneur portfolio produces an annualized standard deviation of returns at 24.60 percent that is appreciably higher than the comparable benchmarks (holding larger numbers of securities) that range from 17.56 to 23.14 percent All of the benchmarks and US entrepreneurs have negative skewness. The risk-adjusted return metrics, including the Share and Sortino ratios, demonstrate superior performance by the US entrepreneur portfolio. US entrepreneurs experienced the only positive Sharpe and Sortino ratios over the time period of study, producing 0.46 and 0.21, respectively. All of the other comparable indices provided negative Sharpe and Sortino Ratios. These results provide empirical, though inconclusive, support of the hypothesis that US entrepreneurs outperform the stock market benchmarks. The remaining exhibits generate more compelling evidence.

**Exhibit 4**

<b>Annualized Risk (Jan-2006 to Dec-2011)</b>	<b>Standard Deviation %</b>	<b>Sharpe Ratio</b>	<b>Sortino Ratio</b>	<b>Kurtosis</b>	<b>Skewness</b>
US Entrepreneurs	24.6%	45.8%	21.2%	1.24	-0.19
Russell 3000 Index	18.3%	-15.7%	-61.4%	1.12	-0.65
MSCI The World Index - Gross	19.1%	-7.4%	-51.5%	1.27	-0.69
Russell 2000 Index	23.1%	-2.8%	-44.2%	0.66	-0.45
S&P 500 Price Index	17.6%	-19.1%	-65.9%	1.04	-0.64

Exhibit 5 (below) illustrates the maximum drawdown for US entrepreneurs and comparable benchmarks.

**Exhibit 5**

<b>Category</b>	<b>Max Drawdown</b>	<b>Length</b>	<b>Recovery</b>	<b>Peak</b>	<b>Valley</b>
Entrepreneurs	-49.69%	16	12	10/31/2007	2/28/2009
Russell 3000	-52.69%	16	N/A	10/31/2007	2/28/2009
MSCI World	-53.65%	16	N/A	10/31/2007	2/28/2009
Russell 2000	-54.08%	21	26	5/31/2007	2/28/2009
S&P 500	-52.56%	16	N/A	10/31/2007	2/28/2009

Exhibit 5 indicates the US entrepreneur portfolio at the best maximum drawdown percentage with -49.69%, though the other benchmarks are close ranging from -52.56% to -54.08%. Most of the portfolios provide a similar maximum drawdown length at 16 months (Russell 2000 experienced 21 months). The maximum drawdown recovery period provides the most distinctive difference as the US entrepreneur portfolio experienced a 12 month recovery length in contrast to 26 months for the Russell 2000. The other 3 stock indices which have yet to fully recover from the maximum drawdown period suffered during the 2008-2009 recession (noted N/A).

Exhibit 6 (below) shows the distribution of monthly returns over the time period of study. The bottom region in the displayed exhibit indicates how the US entrepreneurs were more likely to yield a monthly return of 2 to 4%, 4 to 6% or >10% compared to other indices. By contrast, the S&P 500 or Russell 3000 indices were more likely to provide a return of -2 to 0% or 0 to 2% during the Jan 2006 to Dec 2011 time period.

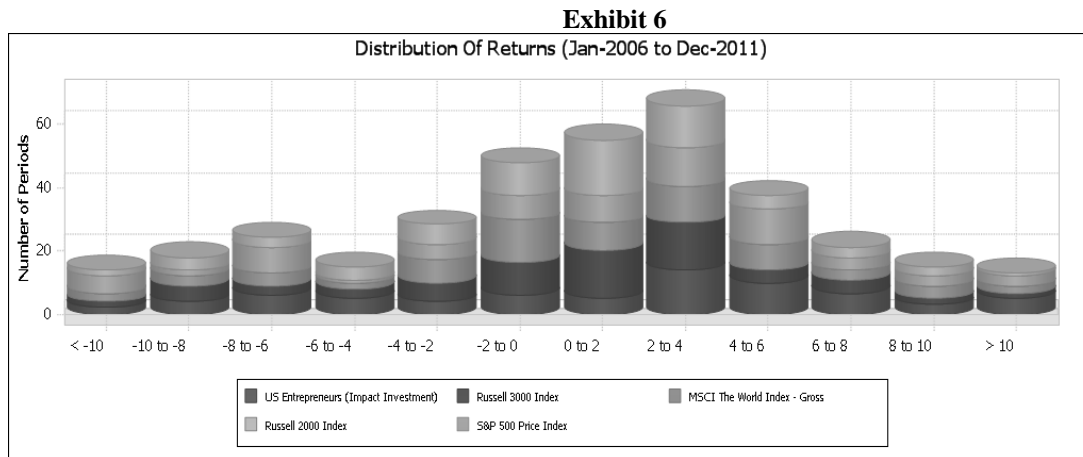


Exhibit 7 provides our strongest evidence supporting the return hypothesis. This exhibit provides risk-adjusted alpha, active premium, information tracking and up-capture ratio. Each of these statistics demonstrate how the US entrepreneur portfolio generated superior risk-adjusted performance compared to the underlying benchmarks, over the Jan 2006 to Dec 2011 period. We compute risk-adjusted alpha, employing the capital asset pricing model (CAPM) and utilize the Russell 3000 as the measure of market return. The Russell 3000 was selected as the CAPM benchmark since the US entrepreneur portfolio represents small, mid and large capitalization firms across a broad array of industrial sectors. The regression shown in Exhibit 7 consistent with the above average standard deviation illustrated in Exhibit 4 indicates that the US entrepreneur portfolio has a much greater level of market risk (compared to other benchmarks) with a beta of 1.26.

**Exhibit 7**

Correlation Table - Benchmark: Russell 3000	Alpha	Beta	Correlation	R Squared	Active Premium	Information Ratio	Tracking Error	Down Capture Ratio	Up Capture Ratio
US Entrepreneurs	14.50%	1.26	0.93	0.87	13.65%	1.26	10.80%	104.07%	288.60%
Russell 3000 Index	0.00%	1.00	1.00	1.00	0.00%	--	0.00%	100.00%	100.00%
MSCI The World Index	1.43%	1.02	0.97	0.95	1.30%	0.30	4.42%	98.88%	105.56%
Russell 2000	1.81%	1.21	0.95	0.91	1.22%	0.15	7.93%	109.23%	167.46%
S&P 500 Price Index	-0.40%	0.96	1.00	1.00	-0.35%	-0.25	1.39%	97.87%	89.23%

The correlation between the US entrepreneur portfolio and the Russell 3000 benchmark is 0.93 suggesting a very strong relationship. The risk-adjusted alpha (also known as “Jensen’s alpha) computed on this combination is an exceptionally strong 14.50% on an annualized basis. This alpha far exceeds the 1.81% 1.43% and -0.40%, for the stock indices associated with the Russell 2000, MSCI World Index and S&P’s 500, respectively (the alpha of the Russell 3000 Index, by definition, is zero). Exhibit 7 indicates how the active premium for US entrepreneurs is 13.65%. The remaining stock indices have active premia ranging from 1.3% to -0.35%. The Information Ratio (IR) for the US entrepreneur portfolio is 1.26 compared to a relatively modest IR for the stock indices ranging from 0.30 to -0.25. The Tracking Error for the US entrepreneur portfolio is significant at 10.80% and well above the Tracking Error of 7.93% for the Russell 2000 Index. The Tracking Errors for the S&P 500 Price Index and MSCI World Index are 1.39%, 4.42%, respectively.

The down capture ratios for the investment portfolios range from 97.87% to 109.23%. US entrepreneurs perform at the lower end of the range at 104.07%, indicating that in negative markets investors will lose more compared to Russell 3000 investors. The S&P 500 Index with a down-capture ratio of 97.87%, indicates that investors will not lose as much as the Russell 3000 investors in negative markets. By contrast, the US entrepreneur Up-Capture ratio at 288.60% demonstrates how the US entrepreneur portfolio dominates in positive markets. The US entrepreneur Up-Capture is well ahead of the second best Index (Russell 2000) of 167.46% while the S&P 500 Price Index Up-Capture ratio at 89.23%, shows it trails all other indices in positive markets.

**Exhibit 8**

	FT EE's [2005]	FT EE's [2006]	FT EE's [2007]	FT EE's [2008]	FT EE's [2009]	FT EE's [2010]	Growth 2005-10
All	20,237,657	20,930,522	21,511,051	21,421,476	20,695,437	21,456,468	
Entrepreneur	344,492	418,127	480,695	518,406	521,249	570,573	
Non-Ent	19,893,165	20,512,395	21,030,356	20,903,070	20,174,188	20,885,895	
All		3.42%	2.77%	-0.42%	-3.39%	3.68%	
Entrepreneur		21.37%	14.96%	7.85%	0.55%	9.46%	10.62%
Non-Ent.		3.11%	2.53%	-0.61%	-3.49%	3.53%	0.98%
M&A-adj							
All	19,522,954	20,162,235	20,665,911	20,552,768	19,847,839	20,136,760	
Entrepreneur	335,645	407,769	467,812	502,086	504,183	549,415	
Non-Ent	19,187,309	19,754,466	20,198,099	20,050,682	19,343,656	19,587,345	
All		3.27%	2.50%	-0.55%	-3.43%	1.46%	
Entrepreneur		21.49%	14.72%	7.33%	0.42%	8.97%	10.36%
Non-Ent		2.96%	2.25%	-0.73%	-3.53%	1.26%	0.41%

Exhibit 8 provides evidence of job growth (and contraction) during our time period of study. The Exhibit represents 1599 publicly-traded US companies that disseminate full-time employment information and have a market capitalization greater than \$200M. Of the total sample of 1599 companies, 112 fulfill our entrepreneur criteria. We place the remaining 1487 companies in the non-entrepreneur category and compare the two groupings. Although the US entrepreneurs represent a broad spectrum of industries covering approximately 7% of the total sample population, the results diverge significantly from the broader group. During the 2006-2010 time period, US entrepreneurs generate job growth of 10.62% (344, 492 jobs at the end of 2005 to 570,573 jobs at the end of 2010) while the non-entrepreneurs increase by a mere 0.98% (19,893,165 to 20,885,895). The year-by-year comparisons show that US entrepreneurs were able to hire more people in every year, including the difficult recessionary years of 2008 and 2009. For example, the entrepreneur group grew by 21.37%, 14.96%, 7.85%, 0.55% and 9.46% during our time period of study. The non-entrepreneur group, had job growth of 3.11%, 2.53%, -0.61%, -3.49% and 3.53% for the same years. As expected, the non-entrepreneur group actually shrank their full-time employees by -0.61% and -3.49% during the 2008-2009 economic contraction

As noted previously, we also eliminated those organizations that engaged in significant M&A activity during the period in question. We report the remaining set of companies in the bottom panel of Exhibit 8. Thus, our Exhibit includes two distinct panels: total growth in the top panel (including both acquired and organic growth), and a bottom panel representing (primarily) organic growth. Our final dataset includes 1419 non-entrepreneurial and 105 entrepreneurial companies. A comparison of top and bottom panels show that after making the adjustment, the organic growth rate for the US entrepreneurs declines by a relatively small amount (9.46% to 8.97%). The growth rate for the non-entrepreneurs, by contrast, fell precipitously, declining from 3.53% to 1.46%. This 2.07% growth rate decline (from 3.53% to 1.46%) represents a 59% drop in the reported job growth rate and demonstrates the importance of acquired growth for non-entrepreneurial companies. Although this paper includes a job growth adjustment for (only) the final year of our report, we surmise that continued investigation of acquired growth from earlier years will temper the overall growth rate even more.

## IMPACT INVESTMENT

During the time period of study, the 105 US entrepreneurial companies grew their combined full-time employee base by 213,770 workers (335,645 to 549,415). The larger group of 1,419 non-entrepreneurial companies increased their full-time labor force by only 400,036 employees (19,187,309 to 19,587,345). The difference in growth rates are dramatic and provide a compelling case for US entrepreneurial companies. In our study of 1524 publicly traded firms, the 105 US entrepreneurial companies provide approximately 35% of the total number of new jobs created (213,770/613,806). However, the grouping of entrepreneurs represents less than 7% of the total number of companies (105/1524). On average, each publicly traded US entrepreneurial company created 2035 new jobs, during 2006-2010. By comparison, each non-entrepreneurial company, on average, created only 281 new jobs per company. Perhaps more importantly, during the 2008-2009 economic contraction, each non-entrepreneurial company, on average, *reduced* their full-time employee payroll by 602 workers [(19343656-21098099)/1419]. The distinction should be clear. While non-entrepreneurial US companies were reducing their payrolls, US entrepreneurial companies were actually increasing their company payrolls by an average of 346 workers per firm [(504183-467812)/105]. This finding has potentially very profound public policy ramifications that will be explored in subsequent work.

The examination of job growth for publicly traded US entrepreneurial companies, particularly in both positive and negative economic conditions, appears to be well within the broad characterization of Impact Investing as defined by O'Donohoe (2010). Consequently, by virtue of the significant job growth and financial returns, we have compelling evidence that suggests that publicly-traded US entrepreneurial companies should qualify as an asset class within the growing Impact Investment category. The classification is significant as it provides a rapidly expanding institutional clientele, under mandates to invest in a socially responsible manner, a convenient solution in which to place their directed investments. The asset class of publicly traded US companies (market capitalization greater than \$200M) provides both daily liquidity and opportunity for investment scale. Further, the diverse nature of our sample provides opportunity for additional refinement by industrial sector, market capitalization or geographic region. An expanded dataset (not shown) also provides investment opportunity in international or emerging markets.

## CONCLUSIONS

Investing in socially responsible companies often comes with a price tag to investors: mediocre performance. It seems doing right for society does not necessarily mean doing right for the investor. Academic evidence in regard to SRI suggests, at best, the investment performance of socially responsible stock funds over the past few decades has been weak. However, a new, but related field of Impact Investing explores opportunities for investors to pursue investment returns while also providing benefit to society. We believe investments in publicly traded US entrepreneurial companies meet this obligation. Our database of 1524 US publicly traded companies shows how a portfolio of entrepreneurial companies generate significantly better stock returns and organic job growth compared to a



portfolio of non-entrepreneurial companies. The results are striking and provide motivation for follow-up investigation as well as public policy consideration.

US entrepreneurs generate higher returns and job growth during a time period that includes both economic expansion and contraction. Although the risks are higher for the entrepreneurial companies compared to a cohort of underlying benchmarks, an abundant set of risk-adjusted metrics demonstrate how a portfolio of entrepreneurial companies provide superior risk-adjusted returns. During our 2006-2011 period of study US entrepreneurial companies create a disproportionate number of new jobs. Although only 105 of our 1524 publicly-traded companies (less than 7%), are “entrepreneurial”, more than 35% of the new jobs originate from this group. Importantly, US entrepreneurial companies were still *hiring* full-time employees during the 2008 to 2009 recession when other (non-entrepreneurial) companies were *firing*.

In summary, we find compelling support for an investment strategy that includes owning a portfolio of publicly traded US entrepreneurial companies from both a general investment as well as Impact Investing perspective. US entrepreneurial companies seem to have been successful in both growing jobs and getting returns for investors.

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