LOOKING FOR STRONG RETURNS? ASK THE AMERICAN PEOPLE

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JUST capital

THE WISDOM OF MAIN STREET

Tens of thousands of analysts in a myriad of hedge, mutual, and pension funds across the U.S. spend countless hours every day searching for the most compelling sources of alpha – active, excess investment return – in the global markets. It is the Holy Grail of Wall Street and the key to financial outperformance and success. Undiscovered alpha is a bit like finding a $100 bill on a Wall Street sidewalk – as the saying goes, no one would pick it up because it couldn't possibly be there.

But what if a compelling, undiscovered source of alpha was hiding in plain sight, and identified not by well paid analysts, but by the citizens of Main Street? In the 1980s and 1990s, legendary stock investor Peter Lynch routinely trounced the returns of the S&P 500, making the mutual fund he managed the largest and best performing in the country. What was his secret sauce? "Investing in what you know." Lynch found that his best investments were not discovered while sitting in his Boston office, but when spending time with his family, driving around town observing his neighbors, or shopping at the mall. Today, JUST Capital offers a fresh take on Lynch's theory, assessing the behavior of companies based on the voice of the public: on what they know and believe are the ideal characteristics a just company should display. Whereas Lynch's method for sourcing outperformance relied on observations of public behavior, the JUST U.S. Large Cap Diversified Index (JULCD) is systematically structured around the public's stated priorities, beliefs, and preferences.

ASSESSING COMPANIES' JUST BUSINESS BEHAVIOR

In November 2016, JUST Capital released its first annual ranking of just business behavior, an assessment of how well Russell 1000 companies perform on the issues that matter most to the U.S. public: worker pay and well-being, customer treatment and privacy, beneficial products, environmental impact, job creation, strong communities, ethical leadership, and more. To our knowledge, this was the first time ever that the values and priorities of Main Street were used to calibrate the performance of corporate America. The polling and surveys that form the basis of these rankings have been refreshed every year since then, as have the rankings themselves and the underlying company data that drive them. All told, JUST Capital has surveyed well over 80,000 Americans, mapped to the U.S. Census, and collected and analyzed over 120,000 data points from a diverse range of sources on all the ranked companies.

Capital markets play an important role in JUST Capital's theory of change. We create investable equity indexes with the goal of driving capital towards more just companies and incentivizing more just behavior at the largest publicly-traded U.S. corporations. The JUST U.S. Large Cap Diversified Index (JULCD), mentioned above, began trading in conjunction with the 2016 rankings release and has been used as the benchmark for a passive exchange-traded fund, launched in June 2018. In this report, we study how the Index has performed in live, out-of-sample trading since its launch, as well as its simulated (backtest) performance prior to its 2016 inception date.

While this report focuses mainly on the market performance of the JULCD Index, it's important to recognize that the companies in the Index are also driving positive change on the environmental, social, and governance issues the American public cares about most. For example, compared with excluded Russell 1000 companies, current JULCD constituents are twice as likely to pay nearly every worker a living wage, produce 45% lower greenhouse gas emissions per dollar of revenue, give more than twice as much to charity, and pay 94% less in Equal Employment Opportunity Commission fines.

DO JUST STOCKS OUTPERFORM OVER THE LONG TERM? A LOOK AT JULCD'S RETURNS

The JULCD Index is comprised of the top 50% of performers, based on JUST Capital's scores across thirty-three industries. It is constructed to avoid industry bias by matching the industry weights of the Russell 1000 at its annual rebalance and currently holds 428 constituents. Since its November 30, 2016 inception through September 2018, the Index has cumulatively outperformed the Russell 1000 by 456 basis points (bp), or 215 bp annualized, with an annualized tracking error of 89 bp.

We caution that the JULCD's pre-inception (before Nov 2016) performance is based on the historical performance of the 2016 rankings top performers and may be subject to material look-ahead and survivorship biases. The out-of-sample performance provides the most accurate assessment of the rankings' performance for investors. To help control for the pre-November 2016 survivor bias, we also compare the JULCD with a survivor-adjusted version of the Russell 1000, which takes its November 2016 members and calculates the 10-year return for this fixed basket. This analysis shows that the survivor-adjusted index had a 69 bp annualized performance advantage over the Russell 1000 through November 2016.

In the sections that follow, we examine the JULCD's both in- and out-of-sample performance, conduct a Fama-French factor analysis of the out-of-sample performance, and provide some hypotheses for the significant unexplained alpha in the out-of-sample attribution. The most significant finding is that 75-83% of the out-of-sample outperformance of the Index cannot be explained by Fama-French factors, suggesting that just business behavior may be a significant source of alpha.

COMBINED IN- AND OUT-OF-SAMPLE PERFORMANCE

The tables below show JULCD's cumulative and annual returns since January 2007. Over this period, JULCD returned 10.4%, or 167 bp above the Russell 1000. This performance was realized with a standard deviation of 14.2%, very similar to the Russell's 14.6%, and 136 bp of tracking error. The corresponding Sharpe and Information ratios over this period are shown. Looking at year-by-year performance, we note that JULCD outperformed the Russell in ten out of twelve years, with in-line returns in 2009 and modest underperformance in 2010. JULCD's advantage was consistent over time, with no individual year accounting for the bulk of the outperformance. JULCD's outperformance versus the survivor-adjusted Russell 1000 was 114 bp with consistent volatility, tracking error, and year-by-year outperformance.[1]

CUMULATIVE RETURN AND VOLATILITY

	JULCD	Russell 1000	Survivor-adjusted Russell 1000
Annualized Return	10.4%	8.7%	9.2%
Annualized Std Dev	14.2%	14.6%	14.4%
Annualized Sharpe (Rf=0%)	0.73	0.60	0.64

Note: January 2007 – September 2018 returns.

JULCD RISK VS. RUSSELL 1000

Annualized Tracking Error	1.36%
Information Ratio (using discrete returns)	1.23
Information Ratio (using log returns)	1.10

Note: January 2007 – September 2018 returns.

JULCD RISK VS. SURVIVOR-ADJUSTED RUSSELL 1000

Annualized Tracking Error	1.26%
Information Ratio (using discrete returns)	0.90
Information Ratio (using log returns)	0.81

Note: January 2007 – September 2018 returns.

1 Based on the Wilcoxon signed-rank test, given how closely the two indices track each other, the probability of such a return difference occurring randomly is below 1%.

RETURNS BY YEAR (%)

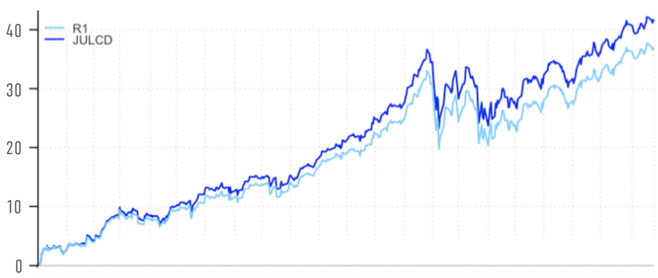
Year	JULCD	Russell 1000	Difference	Survivor-adjusted Russell 1000	Difference
2007	8.7	5.8	2.9	8.4	0.3
2008	-34.5	-37.6	3.1	-35.5	1.0
2009	28.4	28.4	0.0	26.9	1.5
2010	15.7	16.1	-0.4	15.7	0.0
2011	4.8	1.5	3.3	2.5	2.3
2012	17	16.4	0.6	16.9	0.1
2013	34.8	33.1	1.7	33.7	1.1
2014	13.3	13.2	0.1	13.6	-0.3
2015	2.7	0.9	1.8	0.9	1.8
2016	12.8	12.1	0.7	12.1	0.7
2017	24.3	21.7	2.6	21.7	2.6
2018	11.8	10.5	1.3	10.5	1.3

Note: Out-of-sample JULCD performance since Nov 30, 2016. All 2018 data is through September.

OUT-OF-SAMPLE PERFORMANCE

The performance of the JULCD since inception is shown below. While it is commonplace in practice for out-of-sample performance to be inferior to in-sample performance, the opposite is true in the case of the JULCD. Since its November 2016 launch, its excess return has been higher, and its volatility and tracking error have been lower than during the in-sample performance. Realized volatility has remained very similar to the Russell's.

LIVE JULCD VS. RUSSELL 1000



RELATIVE RETURN

LIVE OUT-OF-SAMPLE CUMULATIVE RETURN AND VOLATILITY

	JULCD	Russell 1000
Annualized Return	21.0%	18.8%
Annualized Std Dev	10.5%	10.3%
Annualized Sharpe (Rf=0%)	2.00	1.83

Note: December 2016 – September 2018 returns.

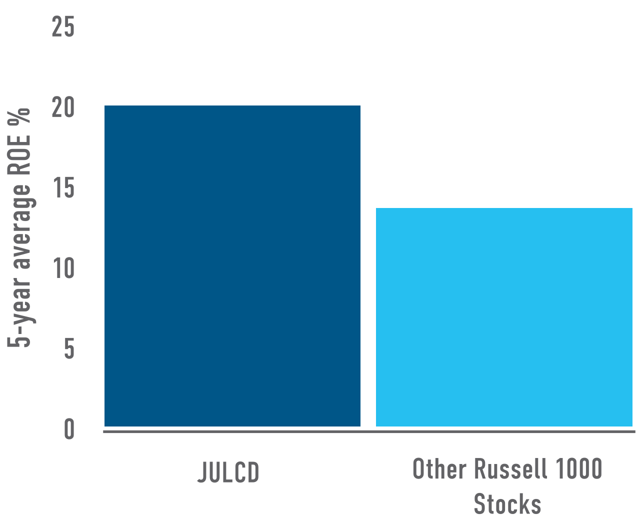
LIVE OUT-OF-SAMPLE RISK VS. RUSSELL 1000

	JULCD
Annualized Tracking Error	0.89%
Information Ratio (using discrete returns)	2.42
Information Ratio (using log returns)	2.02

Note: December 2016 – September 2018 returns.

Furthermore, in addition to generating a higher out-of-sample relative return and lower tracking error than those in-sample, JULCD constituents are also more profitable on aggregate than excluded Russell 1000 companies. Specifically, over the past five years, the JULCD has delivered 7% higher return on equity (ROE) on average than Russell 1000 companies not in the Index.

JUST COMPANIES ARE MORE PROFITABLE



STRONG ESG PERFORMANCE IS CONSISTENT WITH STRONG FINANCIAL PERFORMANCE

The JULCD's higher profitability may not be surprising in light of the increasingly clear evidence that public corporations with strong ESG performance deliver superior financial performance. Hamburg University and Deutsche Asset Management performed the most comprehensive review of the subject, concluding that the business case for ESG investing is empirically well-founded with 90% of ESG studies showing a positive, or at worst neutral, relationship between ESG investing and financial performance across regions and asset classes. A separate analysis by Oxford University and Arabesque Partners found that 88% of studies indicate that solid ESG practices result in better operational performance, and 80% show that the stock price performance of companies is positively influenced by good sustainability practices.

IS BETTER FINANCIAL PERFORMANCE DUE TO CORRELATION OR CAUSATION WITH JUST BUSINESS BEHAVIOR?

One of the vexing questions for both proponents and skeptics of sustainable investing is whether profitable companies perform better on ESG issues because they can afford to, or whether strong ESG performance can lead to higher profits. In other words, are profitable companies more just, or are just companies more profitable? While we don't claim to have the last word on this complex question, we approach the issue here from an investor perspective by using the JULCD Index and controlling for the well-known Fama-French investment factors. The Fama-French 5-factor model attributes equity to returns to five factors: profitability, investment, value, size, and overall market factors. This model allows us to see the performance of the overall Index by isolating out these five factors.

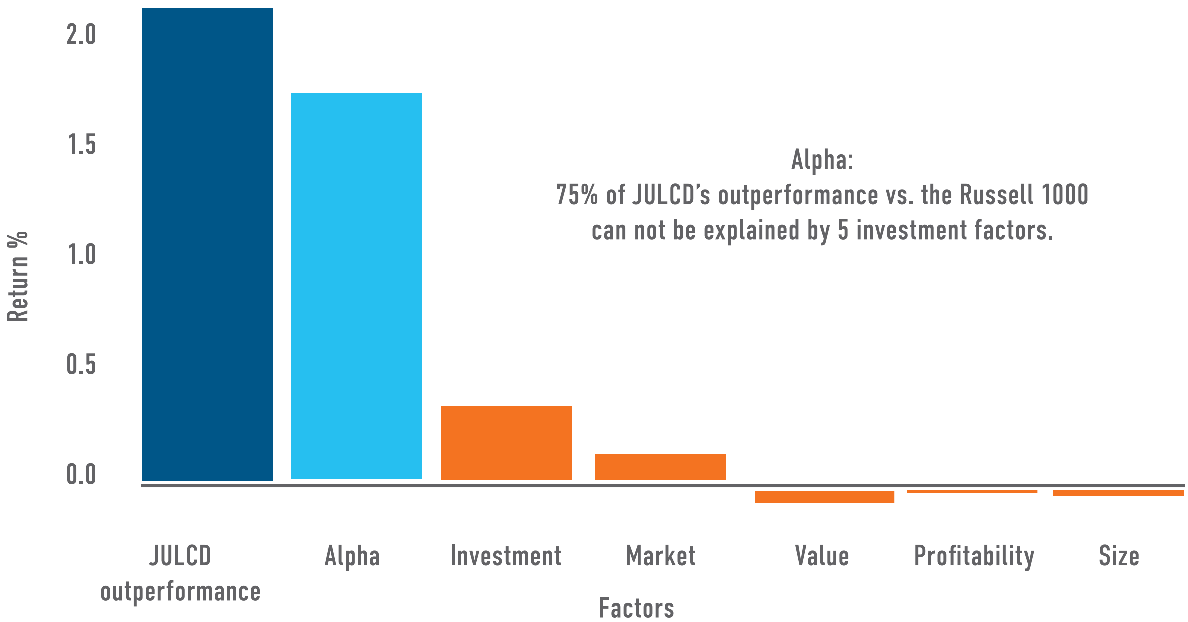
So, does the JULCD Index provide a positive alpha, or unexplained investment residual, after controlling for the five Fama-French factors? After running a regression of the daily JULCD excess return over the Russell 1000 on the five Fama-French factors from December 1st, 2016 through August 31, 2018 (the latest available F-F data), we'd answer yes, it does. The investment implication is that a source of return not captured by any of these factors is responsible for the outperformance of the Index. As a result, we can attribute some of the alpha to the just business behaviors that are exhibited by the JULCD Index constituents.

Three key insights arise from this analysis:

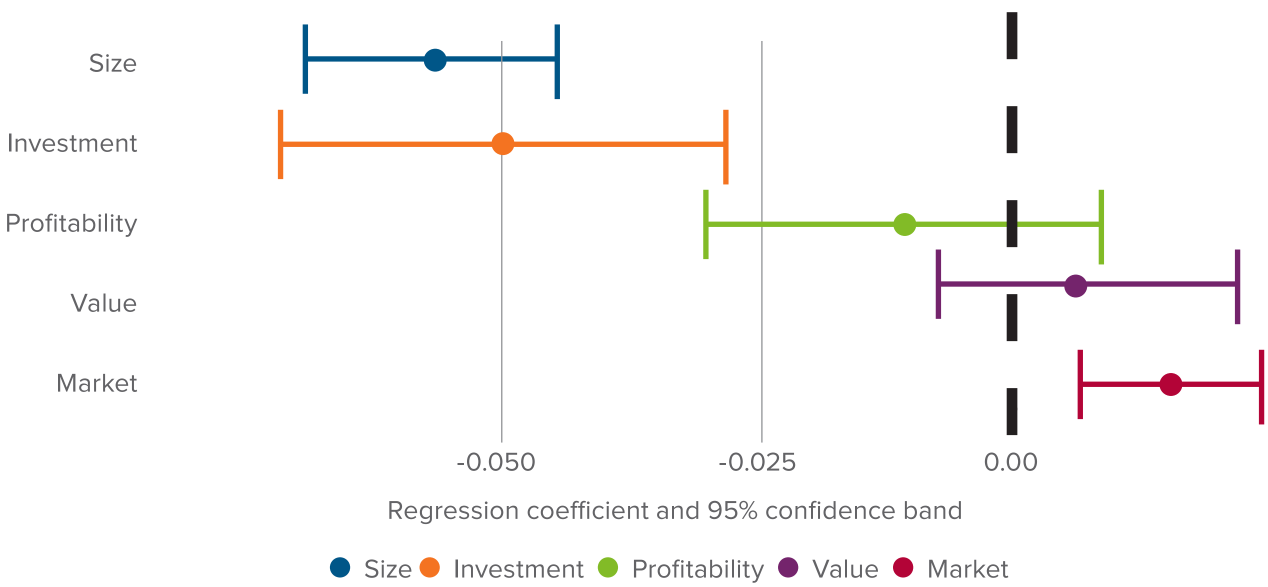
1. The alpha coefficient of the regression is positive and statistically significant.
2. Alpha accounts for 163 bp, or 75%, of the 215 bp of annualized outperformance
3. Exposure to the investment and market factors account for most of the additional outperformance. In aggregate, JULCD constituents are larger and invest more than the Russell 1000.[2] Profitability is not a statistically significant attribute of their outperformance.

2 Fama-French define the factors as: Size = small minus big; Investment = conservative minus aggressive; Profitability = robust minus weak; Value = high minus low; Market = excess return. For example, negative Size implies large cap exposure.

DECOMPOSITION OF JULCD OUTPERFORMANCE VS. RUSSELL 1000

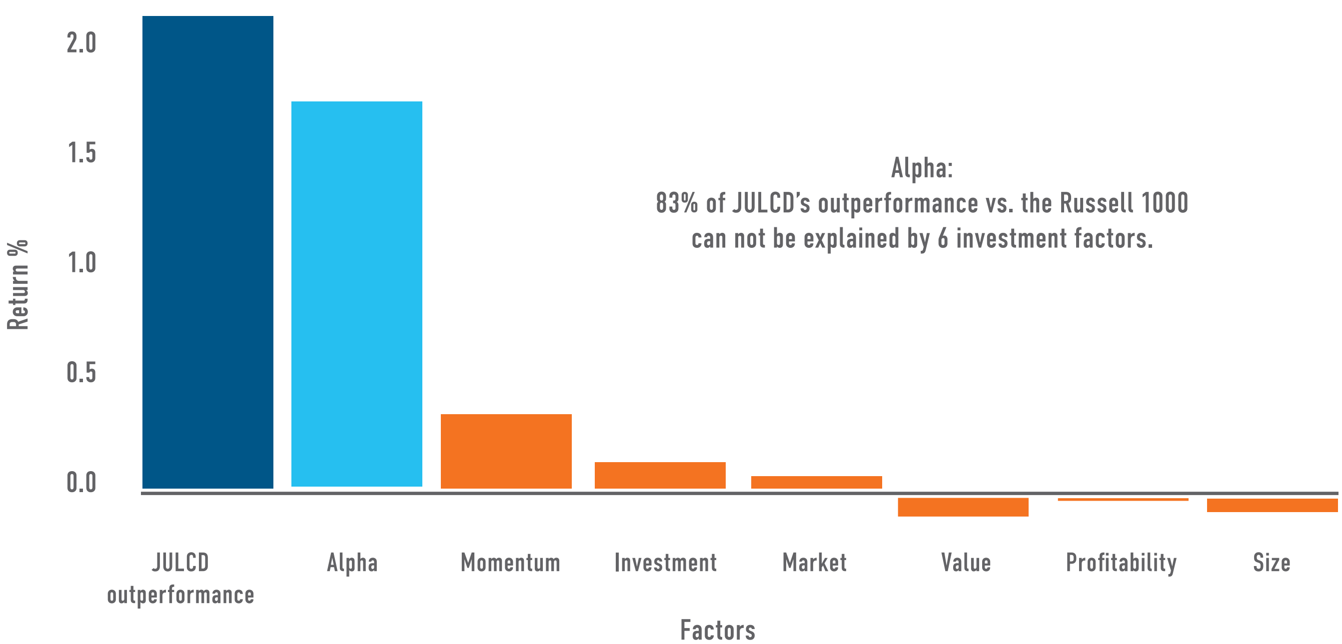


FAMA-FRENCH 5-FACTOR REGRESSION ON JULCD OUTPERFORMANCE



We note the omission of momentum in the 5-factor model and so include it as a sixth factor in the analysis presented below. As observed, even with the addition of momentum in the decomposition, our three key findings do not change significantly and the share of unexplained alpha increases to 83%. Furthermore, to help assess the robustness of these results to particular periods, we ran the 6-factor regression over separate 12-month periods that begin and end at the boundaries of the JULCD Index time series. In both cases the unexplained alpha remains 74-75% of the JULCD outperformance. In summary, it is an unaccounted factor or group of factors that comprise the majority of the outperformance. These results are consistent with our previous research examining the outperformance of all JUST Capital-ranked stocks using Fama-French factors in the first year following the 2016 rankings release.

DECOMPOSITION OF JULCD OUTPERFORMANCE VS. RUSSELL 1000



INDUSTRY ATTRIBUTION: OUTPERFORMANCE DUE TO STOCK SELECTION

In addition to the factor analysis, we've conducted an industry attribution over the same period using the 10 standard ICB industries. Two key observations arise from this analysis. First, as shown on the top right, all of the 4.5% outperformance is due to stock selection, with no impact from industry selection. Second, the JUST Capital rankings did not detract from performance in any industry, and added significant value in five: Consumer Services, Industrials, Financials, Technology, and Consumer Goods.

INDUSTRY ATTRIBUTION ANALYSIS

	Avg % Weight		Total Return		Contribution		Attribution		
	JULCD	R1	JULCD	R1	JULCD	R1	Total	Stock	Ind
Total	100.0	100.0	40.9	36.4	40.9	36.4	4.5	4.5	0.0
Basic Materials	2.6	2.4	25.9	24.8	0.7	0.6	0.0	0.0	0.0
Consumer Goods	9.3	9.1	19.9	14.9	2.1	1.6	0.5	0.5	0.0
Consumer Services	13.6	13.2	55.7	43.0	7.1	5.5	1.6	1.6	0.0
Financials	19.4	19.7	35.8	31.9	7.0	6.4	0.8	0.8	0.0
Health Care	12.5	12.6	41.5	41.0	5.2	5.1	0.1	0.1	0.0
Industrials	12.7	12.7	40.1	32.6	5.1	4.2	1.0	1.0	0.0
Oil & Gas	6.1	6.1	6.8	6.1	0.4	0.4	0.0	0.0	0.0
Technology	19.0	19.1	72.9	69.8	12.4	11.8	0.5	0.5	0.0
Telecommunications	2.0	2.0	3.5	3.2	0.1	0.1	0.0	0.0	0.0
Utilities	2.9	2.9	23.9	22.5	0.8	0.7	0.0	0.0	0.0

Note: Based on November 30, 2016 - August 31, 2018 cummulative returns. Columns may not sum to total due to rounding.

JULCD OUTPERFORMANCE IS NOT ATTRIBUTABLE TO COMMON INVESTMENT FACTORS

This article has shown that strong out-of-sample performance of the JULCD Index isn't attributable to standard Fama-French factors or industry bets. It has also shown that the live out-of-sample performance exceeds that of the in-sample, both with and without survivor-adjustments for the pre-inception period. The natural question that follows is what the particular characteristics of companies driving the outperformance of the JULCD Index are. While it is difficult to pin down precisely what is driving the 78-83% of alpha unaccounted for by the Fama-French model, we cannot ignore the differentiating factor in the companies represented in the JULCD from those excluded: just business behavior. Any alternative explanation would have to rely on an investment driver that is both not captured by Fama-French and is unrelated to corporate responsibility. To us, the reasons why a responsible company determined of, by, and for the American people would produce impressive returns is surprisingly intuitive. It doesn't take a CFA to see that companies who invest in their employees, treat their customers well, work to create quality products, are sustainable, care about their communities, create jobs, and have ethical leadership would do well. Thus, while just business practices benefit employees, consumers, communities, and the environment, they may equally benefit shareholders and the companies themselves.

Please see our related study, The Win-Win of Just Business Behavior (Jones/Cortina), which identifies three ways that companies can improve worker treatment while maximizing profits.

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ABOUT JUST CAPITAL

JUST Capital, an independent, nonprofit organization, makes it easier for people, companies, and markets to do the right thing by tracking the business behaviors Americans care about most. Our research, rankings, indexes, and data-driven tools help people make more informed decisions about where to invest, work, and buy to direct capital towards companies advancing a more just future. America's Most JUST Companies, including the groundbreaking JUST 100, is published annually in Forbes and on JUSTCapital.com.

JUST Capital was co-founded in 2013 by a group of concerned people from the world of business, finance, and civil society – including Paul Tudor Jones II, Deepak Chopra, Rinaldo Brutoco, Arianna Huffington, Paul Scialla, and others. Our mission is to build a more just marketplace that better reflects the true priorities of the American people. We believe that business, and capitalism, can and must be a positive force for change. We believe that if they have the right information, people will buy from, invest in, work for, and otherwise support companies that align with their values. And we believe that business leaders are searching to win back the trust of the public in ways that go beyond money. By shifting the immense resources and ingenuity of the $15 trillion private sector onto a more balanced – and more just – course, we can help build a better future for everyone.

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