

VALUE SERIES II:

USING THE P/CF RATIO TO FIND VALUE



THE RETIREMENT GROUP^{inc}
PARTNERS IN RETIREMENT

TABLE OF CONTENTS

- 1 The Value Series**
- 2 Fama and French Backtests**
- 4 Value vs. Glamour**
- 5 Equal Weight Returns**
- 7 The Brandes Study**
- 8 Results of Using P/CF Ratio**
- 9 Conclusion**
- 10 Sources**

THE VALUE SERIES

Given current market volatility, we think now is a good time to revisit important value metrics in our four part series. In the second part of this four part value series we will look at the Price-to-Cash Flow ratio.

Investors are often looking for ways to beat the market. If you're one of those investors, you should consider the following proven strategy that has been implemented by some great investors. Value investors figured out how to beat the average annualized returns of the S&P 500 a long time ago, and many have successful track records spanning several decades to prove it. The most famous value investor, of course, is Warren Buffett, but there are many others, including Benjamin Graham, David Dodd, Charlie Munger, Christopher Browne and Seth Klarman.

This investment style focuses on four metrics that characterize a value investment. These four metrics include the Price-to-Earnings Ratio, the Price-to-Cash Flow Ratio, High Dividend Yield and the Price-to-Book Ratio. These metrics, as you will see, are strong indicators of an undervalued security. These undervalued securities consistently outperform the market. We will examine the effect of investing based off of certain characteristics and how their investment returns are correlated. Today, we will look at the Price-to-Cash Flow ratio (P/CF).



FAMA AND FRENCH BACKTESTS

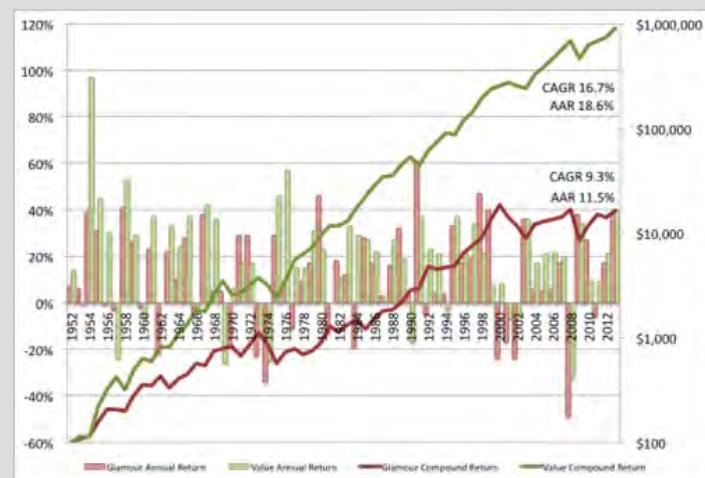
Many believe that using cash flow, rather than accounting earnings, delivers a more accurate picture of a company's business performance, which in turn may lead to better investment decisions and investment performance.

Set out below are the results of two Fama and French[1] backtests of the cash flow yield (the inverse of the P/CF ratio) data from 1951 to 2013. As of December 2013, there were 2,526 firms in the sample (Carlisle-PCF, P2).

The value decile contained the 269 stocks with the highest cash flow yield, and the glamour decile contained the 311 stocks with the lowest cash flow yield. The average size of the glamour stocks is \$4.74 billion and of the value stocks is \$4.80 billion. (Note that the average is heavily skewed up by the biggest companies.

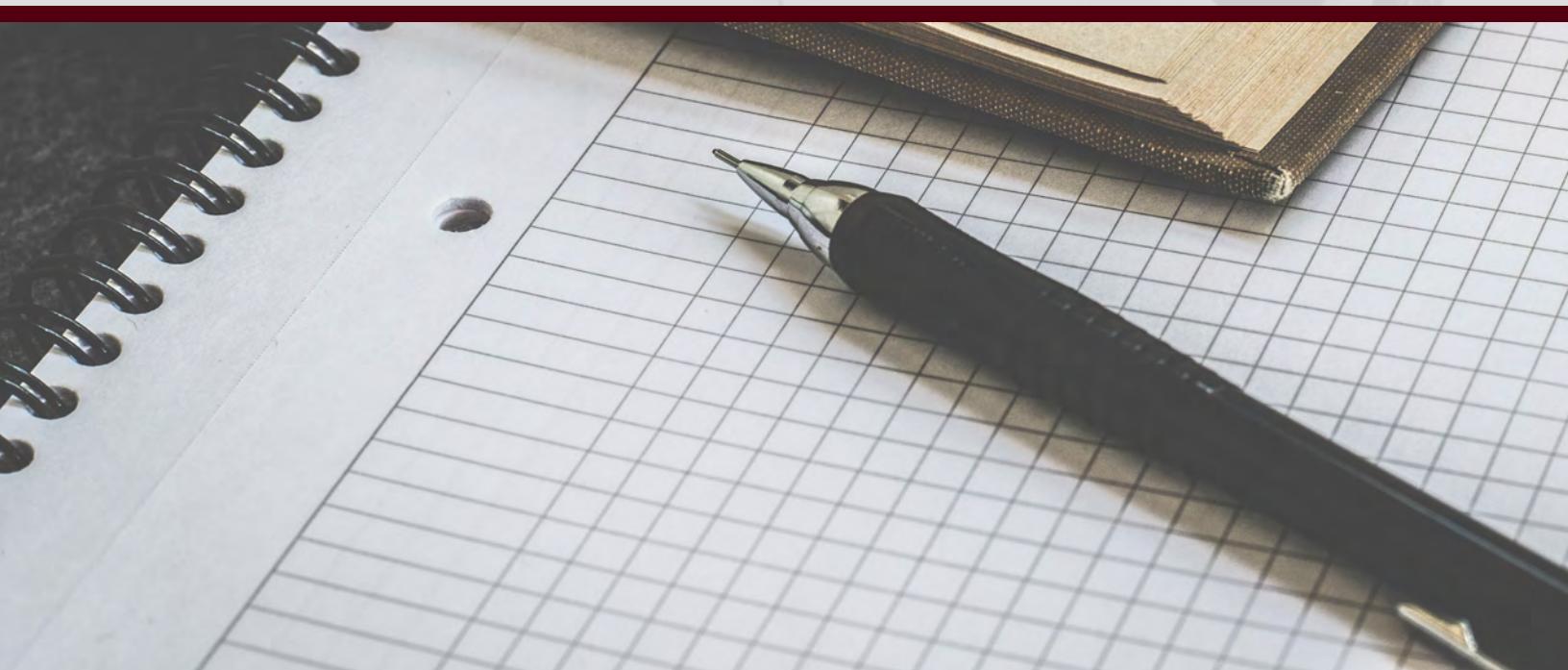
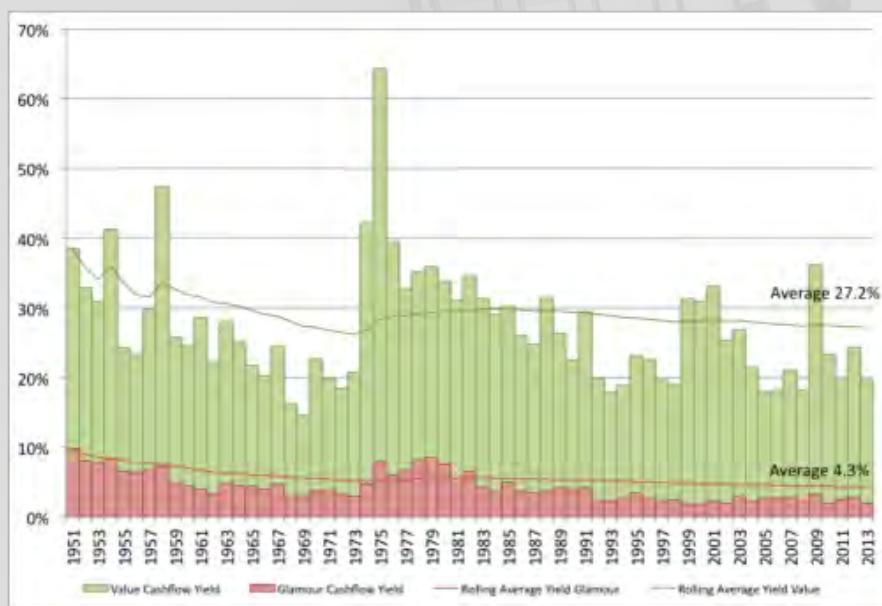
For context, the smallest company included has a market capitalization today of \$272 million, which is much smaller than the average, but still investable for most investors). Stocks with negative cash flow were excluded. Portfolios are formed on June 30 and rebalanced annually.

In this backtest, the two portfolios are weighted by market capitalization, which means that bigger firms contribute more to the performance of the portfolio, and smaller firms contribute less. Here we can see that the value decile has comprehensively outperformed the glamour decile, returning 16.7 percent compound (18.6 percent in the average year) over the full period versus 9.3 percent for the glamour decile (11.5 percent in the average year) (Carlisle-PCF, P3).



FAMA AND FRENCH BACKTESTS

The reason for value's outperformance is simply due to the fact that the value portfolios generated more cash flow per dollar invested; 27.2 percent versus 4.3 percent for the glamour portfolio (Carlisle-PCF, P5). (I used a rolling average. The "average" I've quoted is for the full period. The rolling average has been higher, but it's rarely been lower. The rolling average is the annualized average return for over the 5 yrs following each year long period (sometimes called a 5-year rolling return).



VALUE VS. GLAMOUR

As we discussed previously, value's outperformance over glamour is not a historical anomaly. If we examine just the period since 1999, we find that, though the return is lower than the long term average, value has continued to be the better bet.

Value has continued to outperform glamour since 1999, beating it by 8.7 percent compounded, and 6.2 percent in the average year (Carlisle-PCF, P7). The reason for lower returns recently may be due to the popularization of simple value strategies. However, I think it's more because the market is still working off the massive overvaluation of the late 1990s Dot Com boom.

| | Value | Glamour | Value-Glamour |
|-------------|--------|---------|---------------|
| 1999 | 8.0% | 40.0% | -32.0% |
| 2000 | 8.0% | -24.0% | 32.0% |
| 2001 | -7.0% | -17.0% | 10.0% |
| 2002 | -5.0% | -24.0% | 19.0% |
| 2003 | 36.0% | 36.0% | 0.0% |
| 2004 | 17.0% | 6.0% | 11.0% |
| 2005 | 21.0% | 5.0% | 16.0% |
| 2006 | 22.0% | 6.0% | 16.0% |
| 2007 | 20.0% | 17.0% | 3.0% |
| 2008 | -32.0% | -49.0% | 17.0% |
| 2009 | 34.0% | 38.0% | -4.0% |
| 2010 | 10.0% | 27.0% | -17.0% |
| 2011 | 9.0% | -6.0% | 15.0% |
| 2012 | 21.0% | 17.0% | 4.0% |
| 2013 | 40.0% | 37.0% | 3.0% |
| AAR | 13.5% | 7.3% | 6.2% |
| CAGR | 12.8% | 3.85% | 8.7% |



Have questions, call The Retirement Group to further understand Value vs. Glamour!



EQUAL WEIGHT RETURNS

Market capitalization-weighted returns are useful for demonstrating that the outperformance of value over glamour is not due to the value portfolios containing smaller stocks. Unless you're running an index (or hugging an index), they're not really meaningful. The easiest portfolio weighting strategy is to simply equally weight each position. (If we're prepared to put up with a little extra volatility for a little extra return, we can also Kelly weight[2] our best ideas). Kelly Weighting is determined by the Kelly Criterion which is a formula used to determine what percentage of capital should be used in each trade to maximize long-term growth. There are two key components to the formula ($\text{Kelly \%} = W - [(1 - W) / R]$): the winning probability factor (W) and the win/loss ratio (R). The winning probability is the probability a trade will have a positive return.

The win/loss ratio is equal to the total positive trade amounts divided by the total negative trading amounts. The result of the formula will tell investors what percentage of their total capital that they should apply to each investment. The equal weight return statistics for the cash flow yield are displayed below.

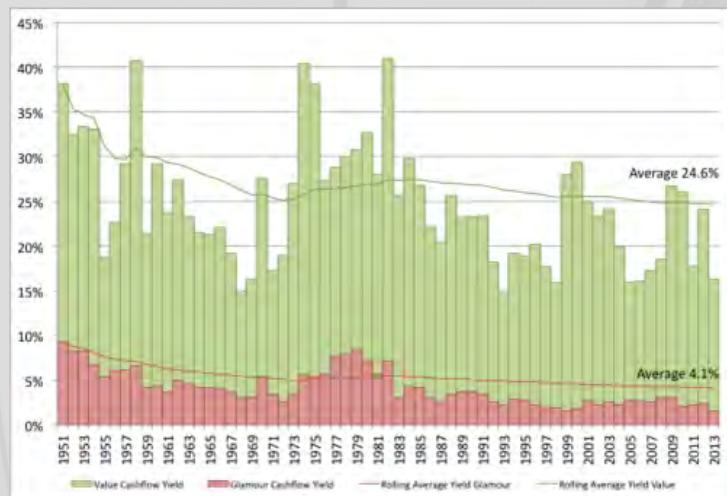
In the equal weight backtest, value generated 20.7 percent compounded (23.8 percent on average), beating out glamour's 9.3 percent compounded return (12.5 percent on average) (Carlisle-PCF, P9). You might note the small advantage for the cash flow yield's value decile over the earnings yield's value decile, 20.7 percent versus 20.1 percent. We'll examine the significance of this small win by cash flow in the coming weeks.



EQUAL WEIGHT RETURNS

Again, the value portfolios generate more cash flow than the glamour portfolios, generating 24.6 percent on average versus 4.1 percent in the glamour portfolios (Carlisle-PCF, P10). As we saw last week, the average cash flow yield for the equally weighted value portfolio is slightly lower than the average cash flow yield for the market capitalization-weighted portfolios. This indicates that, over the full period, bigger stocks tended to be a cheaper method for buying cash flow than smaller stocks. That won't always be the case, but it's interesting nonetheless.

In the equal weight portfolios, value has significantly outperformed glamour since 1999, beating it by 11.1 percent compounded, and 10.0 percent in the average year (Carlisle-PCF, P11).



| | Value | Glamour | Value-Glamour |
|------|--------|---------|---------------|
| 1999 | 26.4% | 32.7% | -6.3% |
| 2000 | 4.9% | -19.0% | 23.9% |
| 2001 | 43.3% | 19.2% | 24.1% |
| 2002 | 8.3% | -27.7% | 35.9% |
| 2003 | 68.7% | 65.9% | 2.8% |
| 2004 | 31.7% | 18.0% | 13.7% |
| 2005 | 15.8% | 4.7% | 11.1% |
| 2006 | 24.2% | 13.9% | 10.3% |
| 2007 | -5.8% | -2.2% | -3.6% |
| 2008 | -37.0% | -44.2% | 7.2% |
| 2009 | 78.5% | 48.9% | 29.6% |
| 2010 | 24.8% | 29.4% | -4.6% |
| 2011 | -8.9% | -6.9% | -2.0% |
| 2012 | 17.3% | 19.7% | -2.4% |
| 2013 | 54.9% | 44.4% | 10.5% |
| AAR | 23.1% | 13.1% | 10.0% |
| CAGR | 21.0% | 9.69% | 11.1% |

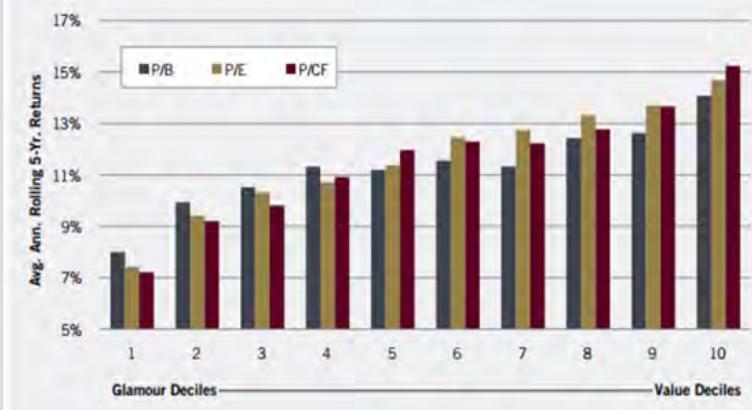
To speak with a Financial
Adviser, call The Retirement
Group today to answer your
financial questions!



THE BRANDES STUDY

Exhibit 6: Value Outperformed Glamour Regardless of Valuation Metrics

Rolling 5-Year Annualized Returns of Valuation Deciles, Global Sample, 1980–2014



In a Brandes Research Institute study, Exhibit 6 on the following page illustrates the global all-cap findings across three price metrics. The results confirmed a consistent value premium across all metrics. We will focus on the P/CF ratio and the out performance in the decile 10 value stocks. The smallest out performance between decile 1 glamour stocks and decile 10 value stocks can be observed with the P/B measurement, where the average outperformance was 7.1% (Brandes, p. 8).

In the same Brandes study, they looked at how the Price-to-Cash Flow held up in the U.S., Non-U.S., and Emerging Markets. Looking at rolling 5-year annualized returns of Price-to-Cash Flow deciles from 1980-2014, it can be seen that the lower price-to-cash flow deciles significantly out-perform those in the higher Price-to-Cash Flow deciles. The results can be seen on the graph “Appendix C: Findings by Regions Using P/CF Deciles”. While all of the lowest Price-to-Cash Flow deciles out-perform the high Price-to-Cash Flow deciles, the biggest premiums happen outside of the United States. In fact, the largest premium can be seen in emerging markets where companies that generate more cash are better suited to withstand market downturns.



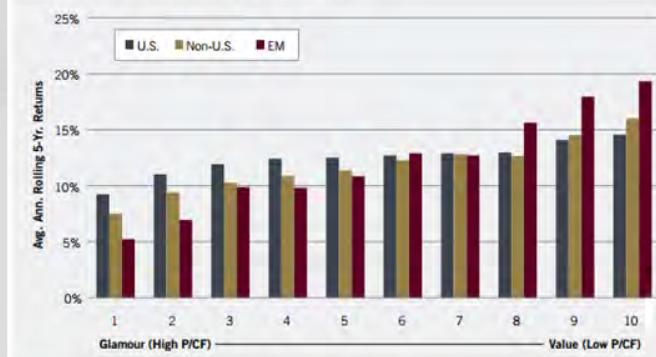
RESULTS OF USING P/CF RATIO

Currently, the average Price-to-Cash Flow (P/CF) for the stocks in the S&P 500 is 13.9. But just like the P/E ratio, a value of less than 15 to 20 is generally considered good. A study conducted by Zach's shows a strong correlation.

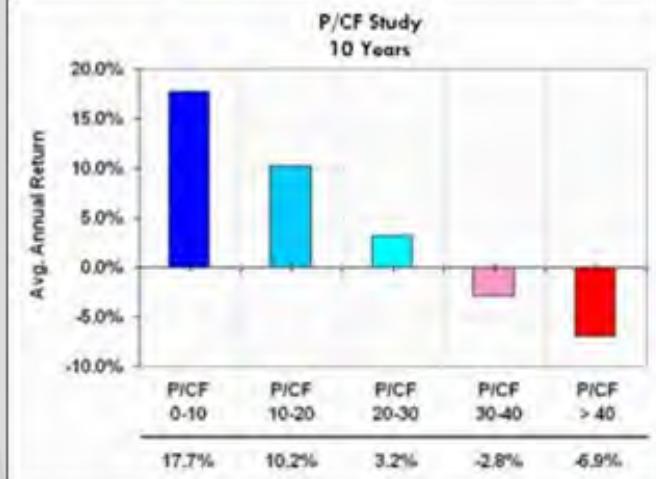
In their testing they found that a P/CF between 0-10 produced the best results (17.1% over the last 10 years (using a 1-week rebalancing period). The second best results came with the range of 10-20 with a 10.2% gain (Zacks, L12). However, once you get over 30, the odds point to a loss (-2.8%). And over 40, the odds of loss are even greater at -6.9%. We can clearly see that low price to cash flow stocks significantly outperform high price to cash flow stocks.

Appendix C: Findings by Regions Using P/CF Deciles

Rolling 5-Year Annualized Returns of P/CF Deciles, 1980–2014



P/CF Study
10 Years



CONCLUSION

Financial theory proposes that the value of an asset is the discounted present value of its future cash flows. Dreman conveys this assessment:

"If we take two companies with similar outlooks, markets, products, and management talent, the one with the higher cash flow will usually be the more rewarding stock. In investing, as in your personal finances, cash is king" (Dreman, p. 50).□

As can be seen in these three studies, it is apparent that by simply screening for low P/CF ratio stocks with no fundamental analysis it is possible to outperform not only glamour stocks but the market as well. Reinforcing this metric are the value oriented track records of notable names such as Warren Buffet, Bruce Berkowitz and Seth Klarman who all use the P/CF ratio as a key indicator for their investment universe. Historically, over the long run the low P/CF ratio acts as a strong indicator of a value investment. As we saw last week with the P/E ratio, over the long run, cheap stocks tend to outperform more expensive stocks.



If you're unsure about Price to Cash Flow Ratios,
visit theretirementgroup.com to schedule an
appointment with an adviser!

OR

Call The Retirement Group today
(800) 900-5867 to speak with an adviser today!



SOURCES

[1] http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

[2] http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

[3] Brandes Research Institute. "Value vs. Glamour: A Long-Term Worldwide Perspective". November 2014. <<https://www.brandes.com/docs/default-source/brandes-institute/value-vs-glamour-worldwide-perspective>>.

[4] Carlisle, Tobias. "Investing Using the Price-to-Earnings Ratio and Earnings Yield (Backtests 1951 to 2013)". May 26, 2014.
<<http://greenbackd.com/2014/05/26/price-to-earnings-ratio-backtest-1951-to-2013/>>.

[5] Dreman, David N. Contrarian Investment Strategies: The Next Generation, Simon & Schuster, New York, NY (1998).

[6] Tweedy Browne Company LLC. "What Has Worked in Investing: Studies of Investment Approaches and Characteristics Associated with Exceptional Returns." 1992
<http://www.tweedy.com/resources/library_docs/papers/WhatHasWorkedFun dVersionWeb.pdf>.

[7] Zacks Investment Research. "Zacks: Using Price to Free Cash Flow to Find Value Stocks". February 19, 2014. <<http://wire.kapitall.com/investment-idea/zacks-using-price-free-cash-flow-find-value-stocks/>>.

For more Financial Information check out these resources!

North-West Regional Office
201 Mission
Suite 1200
San Francisco, CA 94105
Phone: 1-800-900-5867
Fax: 1-866-936-0750

Mid-West Regional Office
10733 Sunset Office Drive
Suite 225
St. Louis, MO 63127
Phone: 1-314-858-9090

South-West Regional Office
1980 Post Oak Blvd.
Suite #1500
Houston, TX 77056
Phone: 1-281-241-9886

Mid-Atlantic Regional Office
933 Pickering Drive
Yardley, PA 19067
Phone: 1-215-778-9129

Choosing a Financial Advisor

Value Investing Strategy

Disclosure: Securities offered through FSC Securities Corporation, member FINRA/SIPC. Investment advisory services offered through The Retirement Group, LLC, a registered investment advisor not affiliated with FSC Securities Corporation. This message and any attachments contain information, which may be confidential and/or privileged, and is intended for use only by the intended recipient. Any review, copying, distribution or use of this transmission is strictly prohibited. If you have received this transmission in error, please (i) notify the sender immediately and (ii) destroy all copies of this message. Office of Supervisory Jurisdiction: 5414 Oberlin Dr #220, San Diego CA 92121