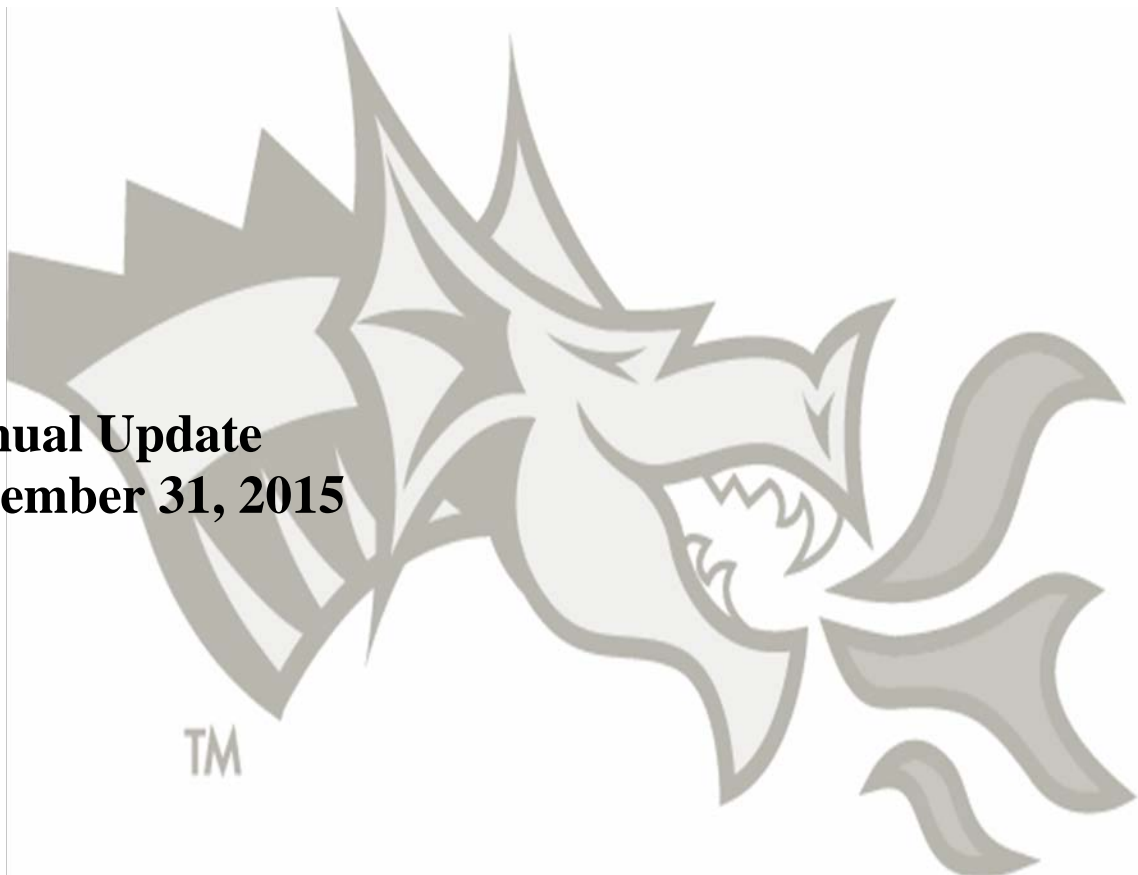


Drexel University The Dragon Fund

**Annual Update
December 31, 2015**



The Dragon Fund

The Dragon Fund, which has been managed by Drexel undergraduates since the fall of 2007, seeks capital appreciation by primarily investing in U.S. stocks with a market capitalization of between \$500 million and \$10 billion. The student analysts apply a combination of sector analysis and discounted cash flow as well as multiples valuation techniques to identify attractive investment opportunities. The fund was started with \$250,000 and received additional infusions of \$100,000 in March 2011 and \$450,000 in June 2013. As of the end of December 2015, the fund's total assets stood at \$1.38 million.

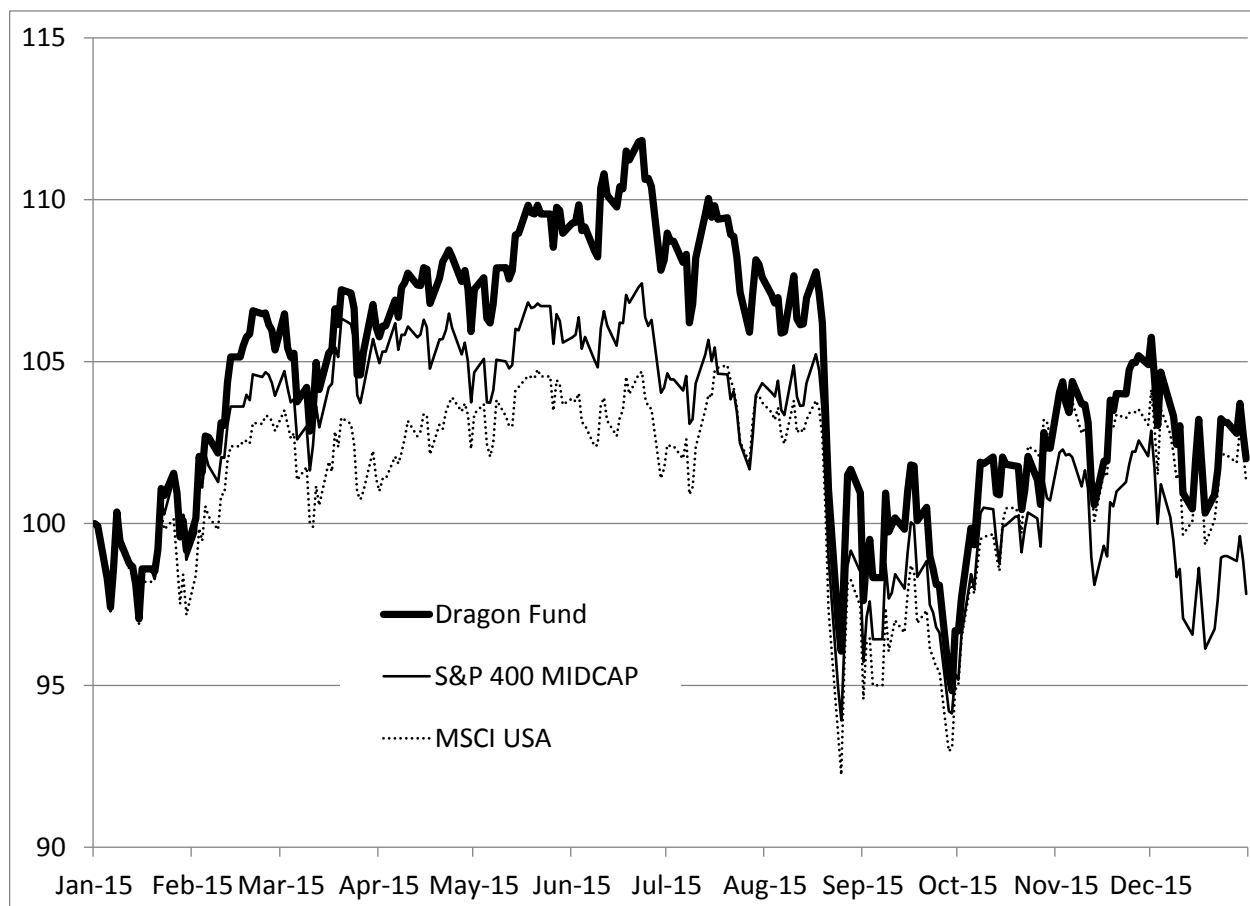
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1 Performance review

1.1 Fund performance

The Dragon Fund returned +2% for the year whereas its benchmark, the S&P 400, lost 2.2%. The Russell Midcap, another midcap benchmark, lost 2.4%. The fund also outperformed the broader market of U.S. stocks; the MSCI USA returned +1.3% for the year.



Sources: US Bank, Datastream

1.2 Attribution analysis

As in past years, most of the Dragon Fund's excess performance was due to security selection, as sector weights were within 2% of their corresponding benchmark weights.

Outperformance was broad-based: selection in six out of the nine sectors contributed substantially to performance, only one sector (Materials) detracted significantly.

IT selection stood out, in particular, with ten out of twelve holdings beating the sector. Nvidia was responsible for more than half of the IT contribution, due to the success of its gaming platform. Other notable stock selections included Lear (Consumer Discretionary), White Wave (Consumer Staples), Western Alliance Bancorp (Financials), and AO Smith (Industrials). The fund also benefitted from several of its holdings receiving takeout offers – three stocks in the healthcare sector (NPS Pharmaceuticals, Omnicare, and WX) and one stock in Financials (HCC).

The underperformance in the Materials sector was attributable to one stock, Century Aluminum (CENX). A trifecta of bad news – lower than anticipated demand, China's rise as an aluminum exporter, and execution issues – led to the stock losing half its value during the first half of 2015. In a departure from the usual quarterly rebalancing, Dragon Fund analysts called a special vote on the disposal of CENX in June 2015 which led to the sale of the entire position; the stock has since lost more than 70%.

Attribution analysis relative to S&P 400 Midcap, January 2015-December 2015

DF 2015	Dragon Fund		ishares S&P400		Performance effects [%]		
Sector	Weight	Return	Weight	Return	Allocation	Selection + Interaction	Total
Cash	0%	0%	0%	0%	0.0	--	0.0
Consumer Discretionary	14%	-1%	13%	-8%	-0.0	0.9	0.9
Consumer Staples	3%	11%	4%	-4%	0.0	0.4	0.4
Energy	4%	-28%	3%	-32%	-0.2	0.2	0.0
Financials	25%	6%	27%	5%	0.1	0.1	0.2
Health Care	10%	13%	10%	5%	0.1	0.7	0.8
Industrials	15%	0%	15%	-4%	0.0	0.7	0.7
Information Technology	18%	12%	16%	-1%	0.0	2.1	2.1
Materials	6%	-19%	6%	-13%	0.2	-0.5	-0.3
Utilities	3%	-6%	5%	-6%	0.0	-0.0	-0.0
Total		2.02%		-3.05%	0.40	4.67	5.07

The table is based on the ishares S&P 400 midcap as opposed to the actual S&P 400 index (which is not included in our FactSet subscription). The ETF returns are based on month-end holdings and are thus different from the actual ishares S&P 400 returns. In this case, the difference is substantial, as the S&P 400 index returned -2.18% and the ishares fund actually returned -2.23% (as opposed to the -3.05% number from FactSet shown in the table). Dragon Fund holdings are based on a FactSet model portfolio of the Dragon Fund which is updated on a quarterly basis. Therefore, the returns shown can slightly differ from the actual fund returns. This difference is slight, however: 2.00% actual return versus 2.02% FactSet model portfolio return. "Weight" refers to the portfolio and benchmark allocation as of December 31, 2015.

2 Market review and outlook

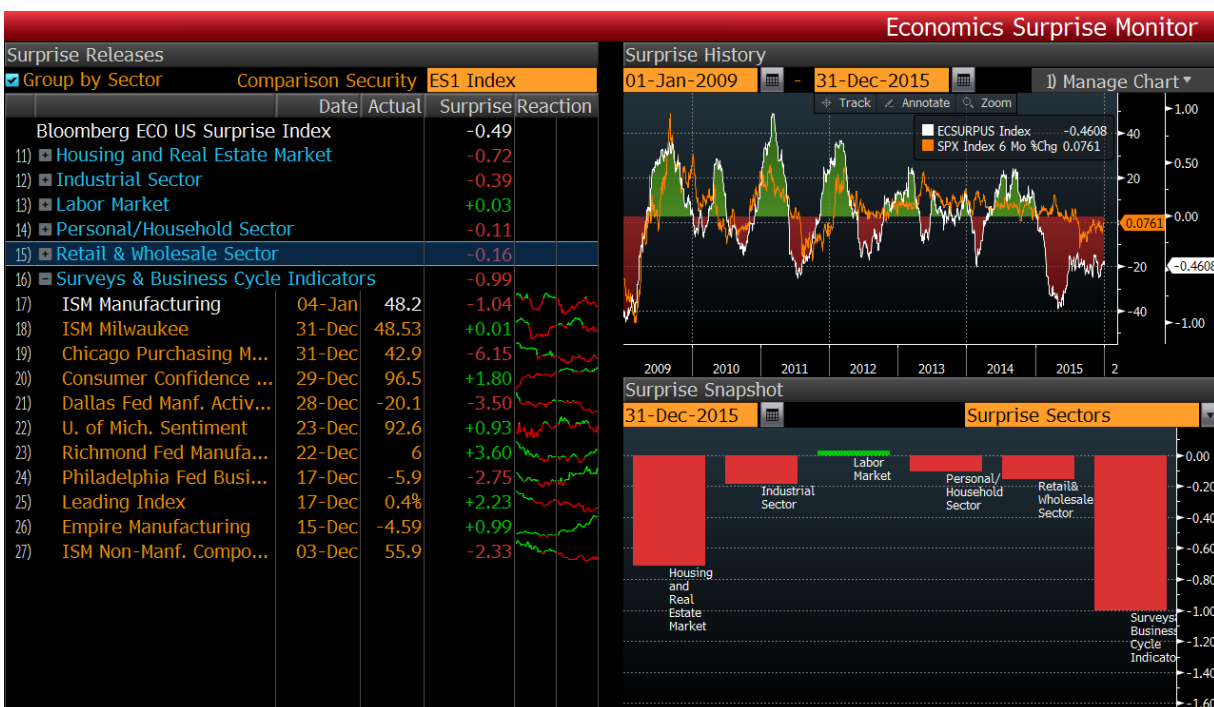
Overall, we do not see much upside for the stock market from its level at the end of 2015: the U.S. economic outlook may be stronger than that for the rest of the world, but it does not inspire much confidence in absolute terms. Stock valuations as of December 2015 still appear elevated and we are concerned with global economic growth prospects – a weakening global economy will hurt U.S. companies' chances to turn in the fundamental performance they need to justify current valuations. Below, we share our observations on the U.S. economy, equity valuations and earnings growth expectations, and selected valuation indicators.

2.1 Macroeconomy

Speculation about Fed interest rate decisions dominated much of 2015. The effects of changing expectations were on display in the Dragon Fund's Financials holdings, particularly in the performance spread between banks and REITs, which would widen with signals indicating earlier action and tighten when rate hike prospects became more remote. In the end, interest rates rose in December and banks won, benefitting the Dragon Fund which has long been overweight banks and underweight REITs.

The end of summer saw a dramatic oil price decline which was driven by expanding supplies (U.S. shale oil, Saudi Arabia refusing to cut volume, and the prospect of Iran oil coming online) and weaker demand, especially from emerging markets such as China. At the end of the year, China worries had taken over the headlines.

By comparison, the U.S. economy appears to be fairly strong. However, even for the U.S., macroeconomic indicators paint a less optimistic picture than previously expected. As can be seen below in Bloomberg's Economics Surprise Monitor, recent economic activity across different sectors has surprised negatively, on average, with slightly more positive signs coming from the demand side.



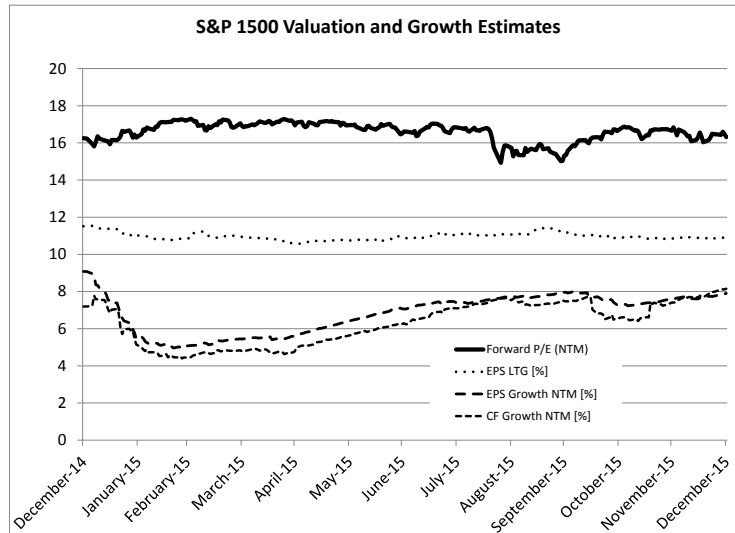
Source: Bloomberg

The ISM indicator, an important barometer of manufacturing activity which has led the stock market over the past couple of years, dipped below 50 at the end of 2015 for the first time in three years. Industrial production and capacity utilization readings during the fourth quarter were disappointing as well.

Housing market indicators have been negative overall, but the leading indicators such as housing permits and starts surprised on the upside in December. Perhaps the most positive signals have been coming from the labor market with strong employment numbers and wage growth, boding well for future consumption, at least domestically. Lower oil prices should also help here, although lower prices at the pump in 2015 did not translate into a meaningful uptick in consumption. Instead, the net effect of lower oil prices was likely negative as Energy companies slashed their capex spending, which spilled over into other sectors, such as Industrials.

2.2 Equity valuations and earnings growth expectations

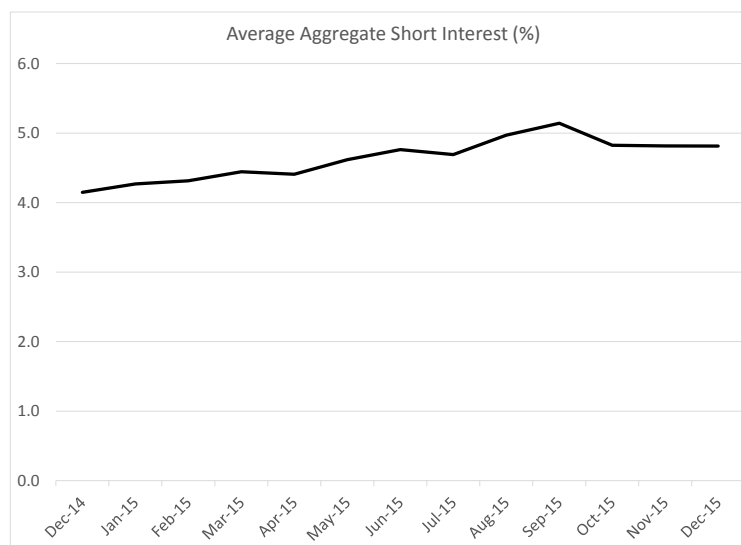
S&P 1500 valuations, measured in terms of average forward P/E ratios, have hovered around 16.5 during the last quarter of 2015. Similar to valuations, long-term earnings growth estimates were flat during the last three months of the year, as can be seen from the graph below. The graph indicates a slight increase in one-year earnings growth expectations, but this is not due to upward revisions of 2016 estimates, but rather 2015 earnings actuals/estimates coming in lower than expected. As we pointed out last quarter, the P/E valuation of the aggregate stock market is still close to its 10-year high and thus far from cheap.



Source: FactSet

2.3 Equity valuation indicators

Short selling may be indicative of future returns because it presumably captures the actions of relatively sophisticated investors who may be better informed. Indeed, aggregate short interest as calculated as in Rapach et al (2015)¹ increased ahead of the pullback at the end of the summer.

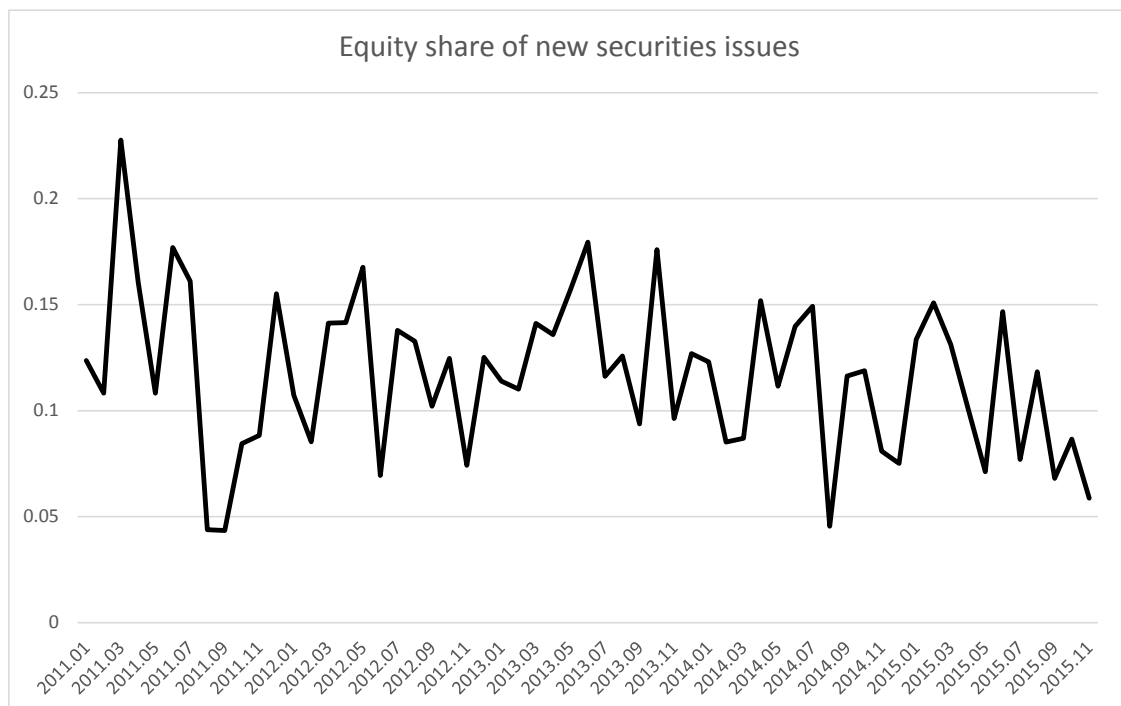


Source: FactSet

¹ Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2474930

However, short selling activity has been relatively flat during the remainder of 2015 and thus offers little guidance going into 2016.

Equity issuing activity can also be thought of as a way to measure the expectations of sophisticated market participants: top management. If managers have information about their stock that has yet to be incorporated into prices, they might be reluctant to use equity financing when they think that current stock prices are lower than warranted by fundamentals. Conversely, they may be inclined to issue equity when stocks are overvalued. The equity share, that is, the volume of equity financing as a fraction of the sum of equity and debt financing obtained by U.S. corporations (as reported by the Federal Reserve Board in Table 1.46 of its Statistical Supplement to the Federal Reserve Bulletin²), has indeed been shown to positively predict stock returns, based on annual data from 1926-1994.³ In a 2013 research note, Dragon Fund analysts have shown that the equity share has a negative correlation with subsequent stock market returns out-of-sample (after 2004) and at a higher frequency (monthly and quarterly, as opposed to annually). By the end of 2015, the equity share had fallen below 6%, a level previously seen at the onset of the European sovereign debt crisis in 2011 and briefly in 2014. Although this is a positive signal, it needs to be viewed in the broader context provided above.



Source: Federal Reserve

² Available at <http://www.federalreserve.gov/econresdata/releases/corpsecure/current.htm>

³ See Baker and Wurgler (2000), available at <http://onlinelibrary.wiley.com/doi/10.1111/0022-1082.00285/abstract>

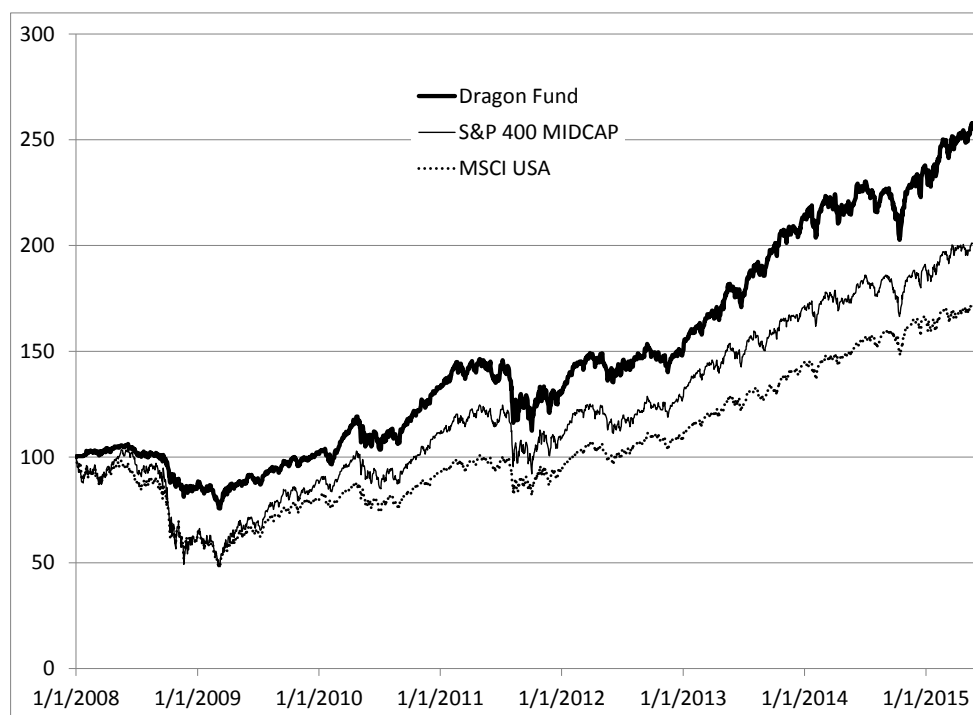
3 Historical risk and return profile

The fund's past return and risk profile continues to compare favorably to those of the S&P 400 benchmark as well as the broader U.S. market.

Portfolio returns	2011	2012	2013	2014	2015	3-yr avg	5-yr avg	Since inception
Dragon Fund	-1.7%	15.4%	42.7%	9.3%	2.0%	16.7%	12.5%	11.5%
S&P 400	-1.7%	17.9%	33.5%	9.8%	-2.2%	12.8%	10.7%	7.9%
MSCI USA	-1.5%	17.3%	34.8%	13.2%	-2.4%	14.2%	11.4%	5.9%

Sources: Dragon Fund account reports provided by US Bank, Datastream, FactSet

\$100 invested at the fund's inception would have grown to \$240 by the end of 2015. An investment in the S&P 400 index of midcap stocks or the MSCI USA index of the broad-based U.S. stock market would have yielded \$184 and \$166, respectively.



Source: US Bank, Datastream

The fund's total return volatility, based on weekly returns in 2015, was 14%, slightly higher than the S&P 400 midcap with 13% but similar to the volatility of the aggregate U.S. stock market as proxied by the MSCI USA. This is quite remarkable given that the Dragon Fund only has 60 positions and thus a higher exposure to non-market risk shocks, for example, industry risks.

However, over the past 5 years, this exposure has been contained by limiting sector bets (fund sector weights are typically well within 2% of the benchmark weights). Moreover, Dragon Fund analysts attempt to identify and limit unwanted exposures that cut across sectors, such as interest rate or emerging markets risks. The Dragon Fund's tracking error with respect to the S&P 400 (the annualized standard deviation of the difference between weekly Dragon Fund and S&P 400 returns) has remained stable during the past year. The fund's beta with respect to the aggregate stock market as proxied by the MSCI USA declined substantially from 2014 to 2015. Given that the beta of the S&P 400 with respect to the MSCI USA declined as well, the decline in the fund's beta reflects a more general trend in midcap stocks rather than fund-specific actions.

Portfolio risk	2011	2012	2013	2014	2015
Dragon Fund volatility	23%	12%	12%	15%	14%
S&P 400 volatility	26%	13%	12%	13%	13%
MSCI USA volatility	22%	11%	10%	12%	14%
Dragon Fund tracking error (relative to S&P 400)	4.6%	3.7%	3.6%	3.1%	3.1%
Dragon Fund beta	1.05	1.01	1.02	1.14	0.97
S&P 400 beta	1.17	1.12	1.11	1.04	0.91

Sources: Dragon Fund account reports provided by US Bank, Datastream, FactSet

4 Turnover and costs

Dragon Fund portfolio turnover (calculated as mandated by the SEC for public mutual funds) and the associated total costs have consistently been below those of actively managed mid-cap funds.

Turnover	2011	2012	2013	2014	2015
Dragon Fund	25%	41%	33%	40%	32%
Purchases	\$198,830	\$202,734	\$749,760	\$526,765	\$462,629
Sales	\$102,942	\$183,613	\$278,003	\$505,989	\$445,030
Average portfolio	\$405,260	\$445,451	\$845,938	\$1,268,732	\$1,381,669
Trading costs	\$270	\$363	\$718	\$707	\$568
Trading costs [%]	0.07%	0.08%	0.08%	0.06%	0.04%

Sources: Dragon Fund account reports provided by US Bank, FactSet

5 Factor analysis

One might be concerned that Dragon Fund excess returns are due to exposure to certain factors that are known to be associated with above-average returns in the cross section of stocks. To analyze the sources of the Dragon Fund's excess returns beyond the attribution and portfolio risk results presented above, we perform a factor analysis for the past 1-, 3-, and 5-year horizons.

Specifically, we regress weekly Dragon Fund returns in excess of the 3-month T-Bill on the three factors frequently chosen by both academics and practitioners: a market factor (returns of the S&P 500 index in excess of the 3-month T-Bill), a size or small-minus-big (SMB) factor (the difference between the returns of small stocks proxied by the Russell 2000 index and the returns of big stocks proxied by the S&P 500 index), and a value or high-minus-low (HML) factor (the difference between the returns of stocks with high book-to-market values proxied by the Russell 3000 Value index and the returns of stocks with low book-to-market values proxied by the Russell 3000 Growth index). The popularity of these factors goes back to the work of Nobel Laureate Eugene Fama and his colleague Ken French.⁴

As can be seen from the table below, the Dragon Fund's coefficient on the market factor hovers around 1 across the different horizons indicating that an increase in market excess returns translates one-for-one into fund excess returns. The coefficient on the size factor is positive and highly significant across all horizons. This indicates that the Dragon Fund outperforms when small stocks outperform large stocks which is not surprising for a mid-cap fund. The coefficient on the value factor is negative and significant for the 5-year horizon, indicating a growth tilt: the Dragon Fund tended to outperform when value stocks (stocks with high book-to-market values) underperformed growth stocks (stocks with low book-to-market values). However, this growth tilt cannot be detected during the more recent 1- and 3-year periods, suggesting that the fund's holdings have become more equally balanced between value and growth stocks.

Importantly, the fund has generated economically meaningful annual alphas across the past 1-, 3-, and 5-year horizons controlling for its exposures to the different factors. The alphas are not statistically significant, which is not surprising given the relatively small sample of returns.

Factor exposures	1 year	3 years	5 years
Market	0.98**	1.02**	0.97**
Size (SMB)	0.41**	0.47**	0.39**
Value (HML)	0.09	0.00	-0.13*
Annual alpha	3.8%	2.5%	1.2%
R-squared	95%	91%	94%

**/* indicate statistical significance at the 1%/5% level

Source: US Bank, Datastream, and Dragon Fund calculations. The analysis is based on weekly returns as of December 31, 2015.

⁴ Available at <http://www.sciencedirect.com/science/article/pii/S0304405X93900235>

We construct the three factors following the methodology proposed by Cremers et al (2012, <http://cfr.ivo-welch.info/pub/cfr-007.pdf>) rather than using the factors provided by French in his data library (http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html) since French's data library has an update lag.

6 Style analysis

To further examine the factor exposures of the Dragon Fund, we conduct a style analysis as pioneered by Nobel Laureate Bill Sharpe.⁵ Specifically, we ask which combination of style factors best mimicks Dragon Fund returns in terms of having the smallest tracking error with respect to the Dragon Fund. We consider 6 style portfolios: a large cap portfolio (S&P 500), a mid cap portfolio (S&P 400), a small cap portfolio (S&P 600), a growth portfolio (S&P 1500 Pure Growth), a value portfolio (S&P 1500 Pure Value), and cash (3-month T-Bill). The growth and value portfolios are market cap neutral. Contrary to factor analysis, this method restricts the factor exposures to be between 0 and 1. Factor exposures can thus be interpreted as portfolio weights. The resulting mimicking portfolio can be thought of as an internal benchmark that reflects the Dragon Fund's style tilts as revealed by its returns. We choose different indices than in our factor analysis above to reflect the Dragon Fund's benchmark, the S&P 400.

Unsurprisingly, the mid cap portfolio receives the largest weight in the mimicking portfolio, ranging between 49% and 62%, as a function of the horizon, as shown in the table below. The large cap portfolio also carries a considerable weight. During the earlier part of the past 5 years, this was due to the Dragon Fund having substantial sector all-cap ETF allocations. More recently, the Dragon Fund has reduced its ETF holdings; as of the end of 2015, ETFs accounted for less than 5% of the assets – down from more than 30% at the end of 2011. However, the Dragon Fund has recently added several large cap stocks such as Accenture and Express Scripts which explains the increased weight on the large cap portfolio during the past 1-2 years.

In addition to a fairly stable growth tilt during the past 5 years, the Dragon Fund has recently gained some exposure to value. These results are consistent with the above results of the factor analysis which point to the Dragon Fund reducing its relative exposure to growth stocks.

Finally, the Dragon Fund has delivered a substantial annual alpha even relative to the best mimicking factor portfolio. Put differently, the Dragon Fund has added value beyond providing exposure to the different investment styles.

Style portfolio	1 year	3 years	5 years
Large cap	28%	14%	29%
Mid cap	49%	62%	52%
Small cap	0%	0%	0%
Growth	16%	17%	16%
Value	7%	7%	0%
Cash	0%	0%	3%
Annual alpha	3.0%	3.0%	1.2%
R-squared	96%	95%	96%

Source: US Bank, Datastream, and Dragon Fund calculations.

⁵ See <https://web.stanford.edu/~wfsarpe/art/sa/sa.htm>

7 Performance of accepted and rejected trades

The Dragon Fund's investment process is unique among the equity funds in Drexel's endowment. In particular, proposed changes to the portfolio have to be accompanied by a written research report and approved by a majority of the student managers who did not write the report. As a result, not all recommended stocks make it into the portfolio. The table below shows that roughly one out of three stock recommendations have been rejected over the course of the past eight years. If this unique decision making process added value, one would expect the accepted recommendations to outperform the rejected picks. This appears to be the case, as can be seen from the table below.

For example, the 146 stock recommendations that received student approval outperformed their sector by 1.3% during the 12 weeks after the recommendation, on average. In contrast, the 63 stock recommendations that failed to receive student approval underperformed their sector by 2.3% during the 12 weeks after the recommendation, on average.

Stocks that were sold tended to underperform their sector subsequent to the sale. For example, sold stocks underperformed their sector benchmark by 1.3% during the 12 weeks after the sale.

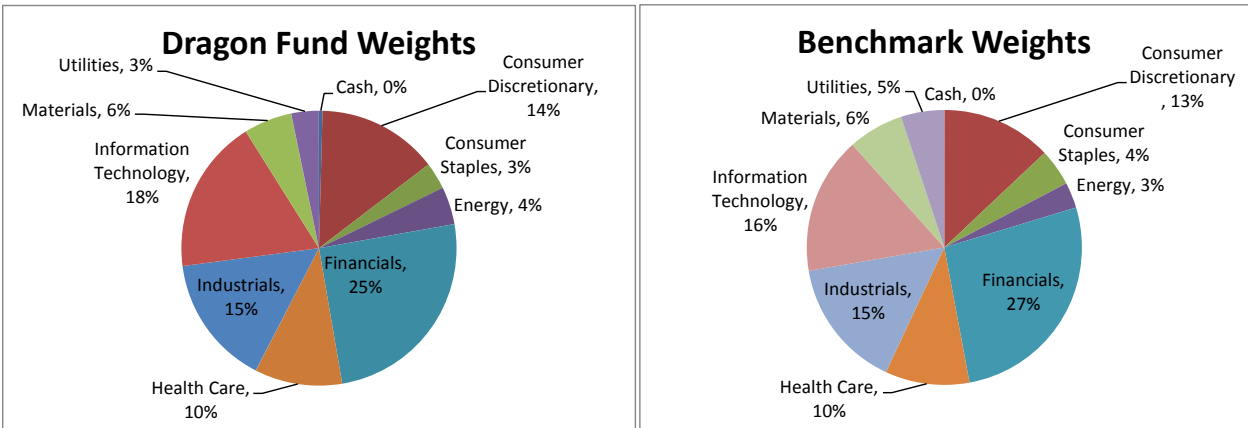
One should be cautious not to overinterpret these statistics. The reported standard deviations suggest that there is substantial variability around the averages. However, they are consistent with the Dragon Fund's investment process adding value above and beyond following each recommendation.

	Weeks after recommendation			
	4	8	12	26
Panel A: 146 accepted buy recommendations				
Excess return [%]	0.4	0.5	1.3	1.1
Standard deviation [%]	6.7	10.6	14.7	24.0
Panel B: 63 rejected buy recommendations				
Excess return [%]	-0.7	-1.8	-2.3	-0.8
Standard deviation [%]	6.9	9.9	12.1	20.7
Panel C: 90 sales				
Excess return [%]	-0.2	-0.4	-1.3	-3.6
Standard deviation [%]	9.3	14.3	15.2	19.8

Source: FactSet, Dragon Fund calculations

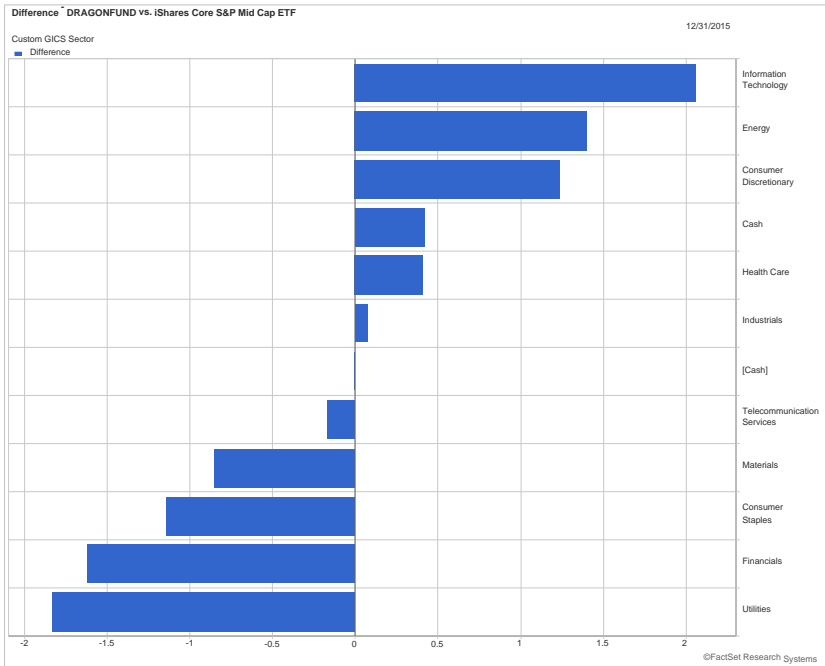
8 Current holdings profile as of December 31, 2015

8.1 Sector allocation



Source: Dragon Fund model portfolio in FactSet, FactSet, benchmark refers to the iShares S&P 400 ETF

8.2 Sector over-/underweights



Source: Dragon Fund model portfolio in FactSet

8.3 Top ten holdings

Ticker	Name	Weight [%]
NVDA	NVIDIA Corporation	3.4
DLTR	Dollar Tree, Inc.	2.9
JAH	Jarden Corporation	2.9
SNA	Snap-on Incorporated	2.8
SBNY	Signature Bank	2.8
WAL	Western Alliance Bancorporation	2.7
HF	HFF, Inc. Class A	2.6
BX	Blackstone Group L.P.	2.4
LEA	Lear Corporation	2.2
JCOM	j2 Global Inc	2.2
Total		26.9

Source: Dragon Fund model portfolio in FactSet

8.4 Characteristics of Dragon Fund holdings

The forward price to earnings ratio is based on consensus estimates for the next fiscal year. The Dragon Fund statistics do not reflect the fund's ETF holdings.

Characteristics (medians)	Dragon Fund	S&P 400
Market Capitalization [\$ millions]	6,730	3,346
# of Securities	60	402
Dividend Yield [%]	1.2	1.5
P/E using FY1 Est	17.3	17.6
Price/Cash Flow	12.7	11.6
Price/Book	2.8	2.3
Price/Sales	2.1	1.7
Est 3-5 Yr EPS Growth [%]	11.0	10.0
ROA [%]	7.3	5.3
ROE [%]	15.5	10.8
Operating Margin [%]	16.6	12.8
Net Margin [%]	9.3	7.4
LT Debt/Capital [%]	31.4	35.6

Source: Dragon Fund model portfolio in FactSet, FactSet

8.5 Alternative attribution analysis

To examine the robustness of the attribution analysis, we conduct a similar analysis using the Russell Midcap index for which we have constituent data; thus, the returns shown in the table reflect those of the index rather than those of an ETF with stale holdings. Relative to the S&P 400 midcap index, the Russell Midcap index represents more and larger firms, on average. However, the inferences are broadly similar: most sectors show substantial selection contributions and only one sector – Materials – substantially detracts from performance.

DF 2015	Dragon Fund		Russell Midcap		Performance effects [%]		
Sector	Weight	Return	Weight	Return	Allocation	Selection + Interaction	Total
Cash	0%	0%	0%	0%	0.1	--	0.1
Consumer Discretionary	14%	-1%	14%	-5%	0.0	0.6	0.6
Consumer Staples	3%	11%	6%	11%	-0.3	-0.1	-0.3
Energy	4%	-28%	4%	-33%	-0.1	0.2	0.1
Financials	25%	6%	19%	2%	0.4	0.7	1.1
Health Care	10%	13%	7%	9%	-0.0	0.4	0.4
Industrials	15%	0%	11%	-6%	-0.2	1.0	0.8
Information Technology	18%	12%	12%	1%	0.2	1.8	2.1
Materials	6%	-19%	5%	-15%	-0.1	-0.4	-0.5
Utilities	3%	-6%	6%	-5%	0.0	-0.1	-0.0
Total		2.02%		-2.45%	0.21	4.26	4.47

9 Dragon Fund analyst team and contact information (Winter 2015/16)

Please feel free to contact us regarding more in-depth research reports, recruiting information, or other inquiries about the Dragon Fund.

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