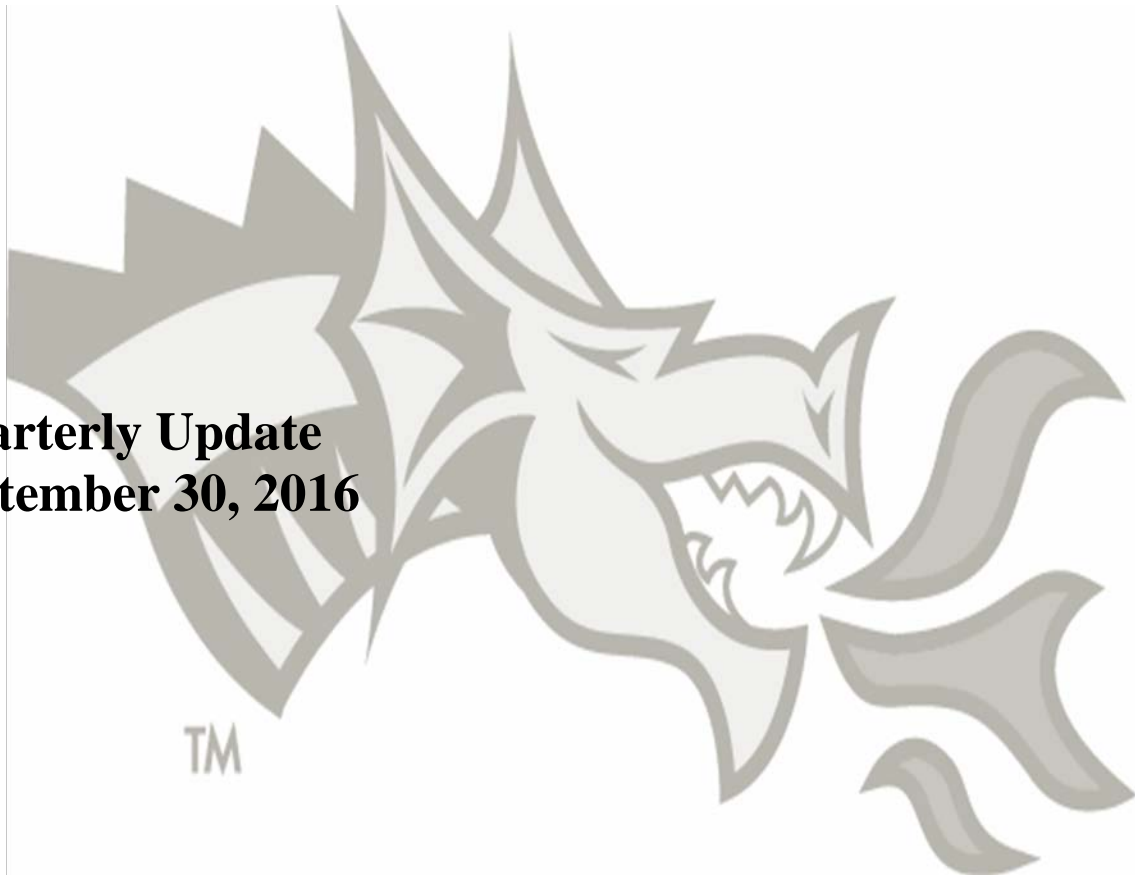


# Drexel University The Dragon Fund

**Quarterly Update  
September 30, 2016**



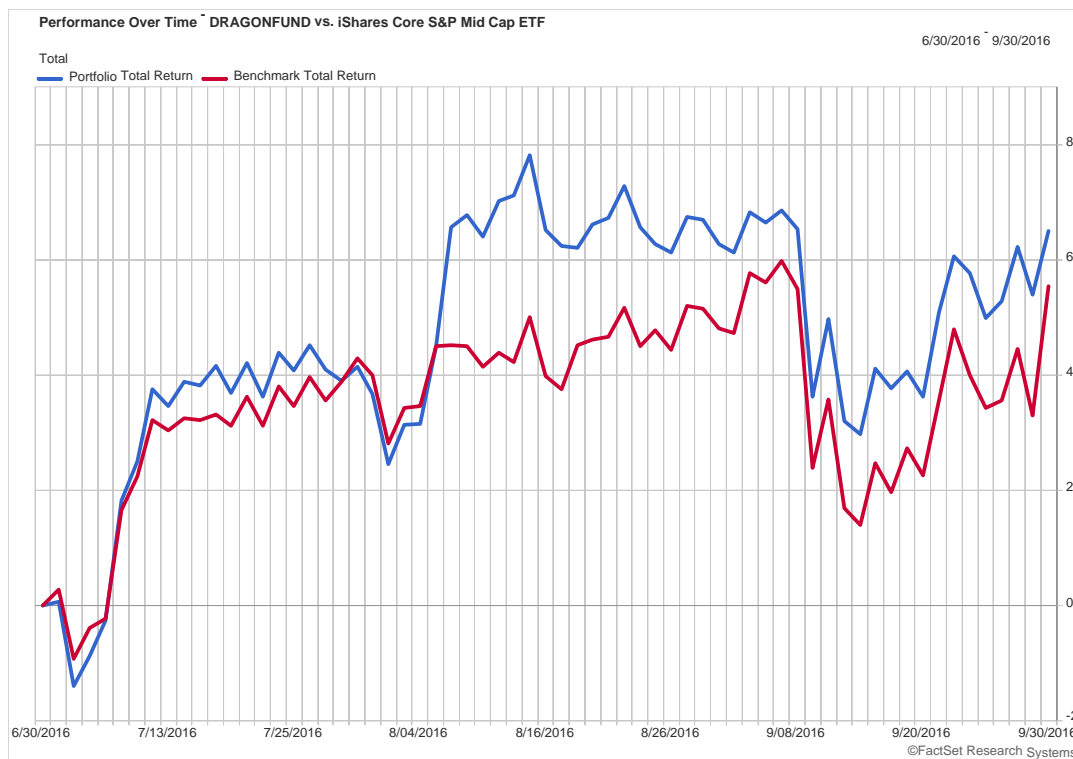
## The Dragon Fund

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, \$450,000 in June 2013, and \$200,000 in June 2016. As of the end of September 2016, the fund's total assets stood at \$1.7 million.

### 1 Performance review

#### 1.1 Overall fund performance

The Dragon Fund returned 6.4% for the quarter whereas its benchmark, the S&P 400, gained 4.1%. The Russell Midcap, another midcap index, returned 4.5%. The broader market, proxied by the MSCI USA, appreciated 4.1% as well.



Sources: Dragon Fund model portfolio in FactSet

## 1.2 Attribution analysis

The biggest positive contribution came from Steinhoff, a South African retailer, acquiring Mattress Firm (MFRM) at a 115% premium. During the Q2 rebalancing, Dragon Fund analysts had recommended to increase the Dragon Fund's MFRM stake to about 2%, which translated into an excess return of more than 2% on the day the acquisition was announced.

Another positive contribution came from the fund's stake in Trinity (TRN), a railcar manufacturer and lessor. Dragon Fund analysts had recommended increasing the stake prior to TRN posting a strong earnings beat and being boosted by hedge fund ValueAct taking a stake in the firm.

The fund's semiconductor and semiconductor equipment holdings also helped performance, with Nvidia (NVDA) and Lam Research (LRCX) leading the pack. To remain in compliance with the 5% rule (individual stock positions cannot exceed 5% of the fund's total assets), we had cut back NVDA's stake from just under 5% to 3% (even at 3%, NVDA was the largest holding, indicating the conviction of the fund's IT analysts), but by the end of the third quarter, NVDA represented again 4.4% of the fund.

Notable detractors were Hain, an organic food producer and GEO, a prison REIT.

On August 16, Hain announced that the firm would have to delay their earnings announcement due to accounting and control issues in connection with revenue recognition. The firm also announced that it would likely not meet 2016 guidance. The shares sank almost 30%. The Consumer Staples analyst team will take the Q4 rebalancing as an opportunity to review the HAIN position in the context of the fund's large bet on the food product subsector; currently, all three staples holdings are food products stocks.

On August 17, one day after the Hain debacle, the U.S. Department of Justice announced its intention to scale back the use of private prisons. This caused the two prison REITs GEO Group (a Dragon Fund holding) and Corrections Corp (CXW, not a fund holding) to lose more than 35% of their market capitalizations within minutes. Since then, GEO has erased roughly half of that loss, whereas CXW has lost another 22%. The financials team will review the fund's GEO stake in the context of the fund's holdings in both the Financials and the Real Estate sectors (a new sector in the Global Industry Classification Standard or GICS since September 2016). Currently, the fund is substantially underweight REITs (5% in the fund versus 11% in the benchmark).

### Attribution analysis relative to ishares S&P 400 Midcap ETF, 2016 Q3

DF 2016 Q3 Sector	Dragon Fund		ishares S&P400		Performance effects [%]			
	Weight	Return	Weight	Return	Allocation	Selection	Interaction	Total
Cash	5%	0.0%	0%	0.0%	-0.1	--	--	-0.1
Consumer Discretionary	10%	18.9%	12%	2.6%	0.1	1.9	0.0	2.0
Consumer Staples	3%	-8.4%	4%	-3.7%	0.1	-0.2	0.0	-0.1
Energy	5%	11.5%	4%	6.0%	0.0	0.2	0.1	0.3
Financials	17%	4.4%	15%	5.1%	0.0	-0.1	-0.0	-0.1
Health Care	8%	-0.8%	9%	5.1%	0.0	-0.5	0.0	-0.5
Industrials	15%	8.1%	14%	6.7%	0.0	0.2	0.0	0.2
Information Technology	17%	14.1%	18%	10.3%	-0.0	0.6	-0.0	0.6
Materials	7%	7.8%	7%	5.5%	-0.0	0.2	0.0	0.2
Real Estate	7%	-6.7%	12%	-0.4%	0.2	-0.7	0.2	-0.3
Telecommunication Services	0%	0.0%	0%	-7.9%	0.0	--	--	0.0
Utilities	4%	-7.2%	5%	-4.5%	0.1	-0.2	0.0	-0.0
<b>Total</b>		<b>6.41%</b>		<b>4.24%</b>	<b>0.44</b>	<b>1.37</b>	<b>0.36</b>	<b>2.17</b>

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). 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 differ slightly from the actual fund and benchmark returns. “Weight” refers to the portfolio and benchmark allocation as of September 30, 2016.

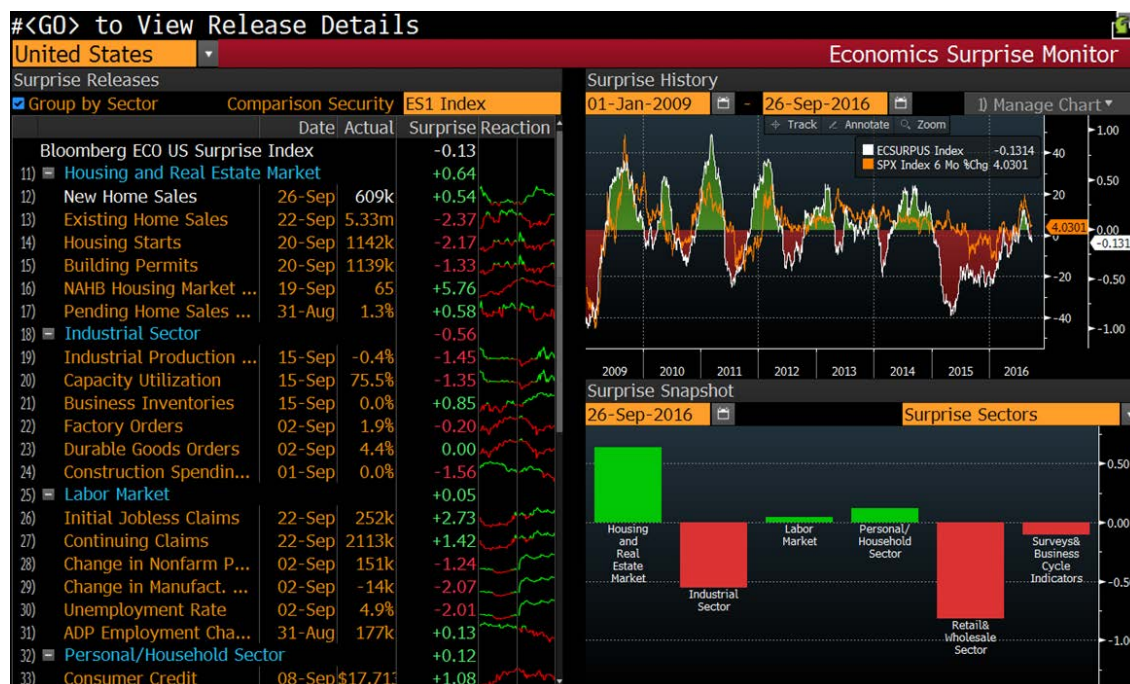
## 2 Market review and outlook

Six months ago, we issued a cautious outlook for the stock market based on a divergence of stock prices (which rebounded in Q1 from an intra-quarter low in February) and downward revisions of short-term and long-term earnings growth revisions. Contrary to our expectations, U.S. stocks rallied 4.5% during the second and third quarters. We attribute the strength of the stock market to positive economic news released coupled with an upward revision of long-term earnings growth expectations over the summer.

We expect the stock market to be trading sideways during the last quarter of the year. Our positive economic outlook appears to be priced in at this point. Recent revisions to short- and longer-term earnings growth do not justify a large upside. Changes in equity share issuance, aggregate short interest, and insider trading – the three smart money indicators we track – have been muted during the third quarter. Despite predicting a sideways market, we expect substantial valuation shifts across stocks. Our sector and subsector positioning reflect our belief that yield plays, especially Utilities and Real Estate stocks, will continue their Q3 struggles.

## 2.1 Macroeconomy

Our economic outlook is fairly positive, although the good summer readings of nonfarm payrolls (increases exceeding +250k in both June and July) and ISM (solidly in expansion territory in both June and July), gave way to underwhelming announcements in August. The Conference Board’s consumer confidence has delivered consistent positive surprises during the past three months, rising from 97 in July to 104 in August. The housing market is also providing some support, with new home sales having consistently beaten expectations during the past three months.

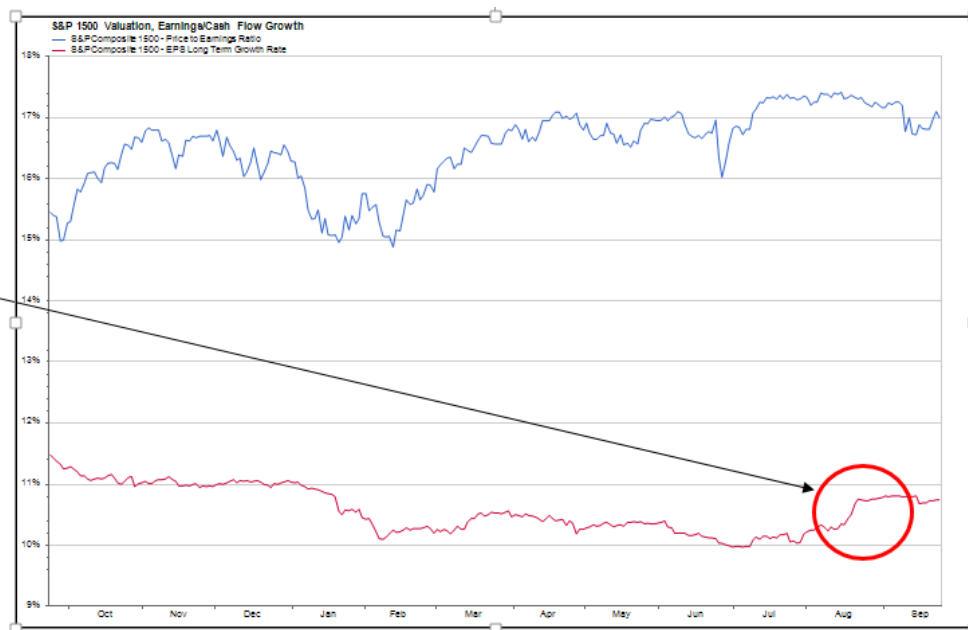


Source: Bloomberg

## 2.2 Equity valuations and earnings growth expectations

S&P 1500 valuations, measured in terms of average forward P/E ratios based on earnings estimates for the next twelve months, rebounded quickly after a brief Brexit scare in June and are close to their 15-year high. The increase during the third quarter presumably reflects the positive news about the U.S. economy as well as the upward revision of LT growth expectations illustrated below.

Upward revision of LT EPS growth indicates support for higher valuations



Source: FactSet

In the short-term, the picture looks more challenging as analysts have downwardly revised their earnings expectations for 2016.

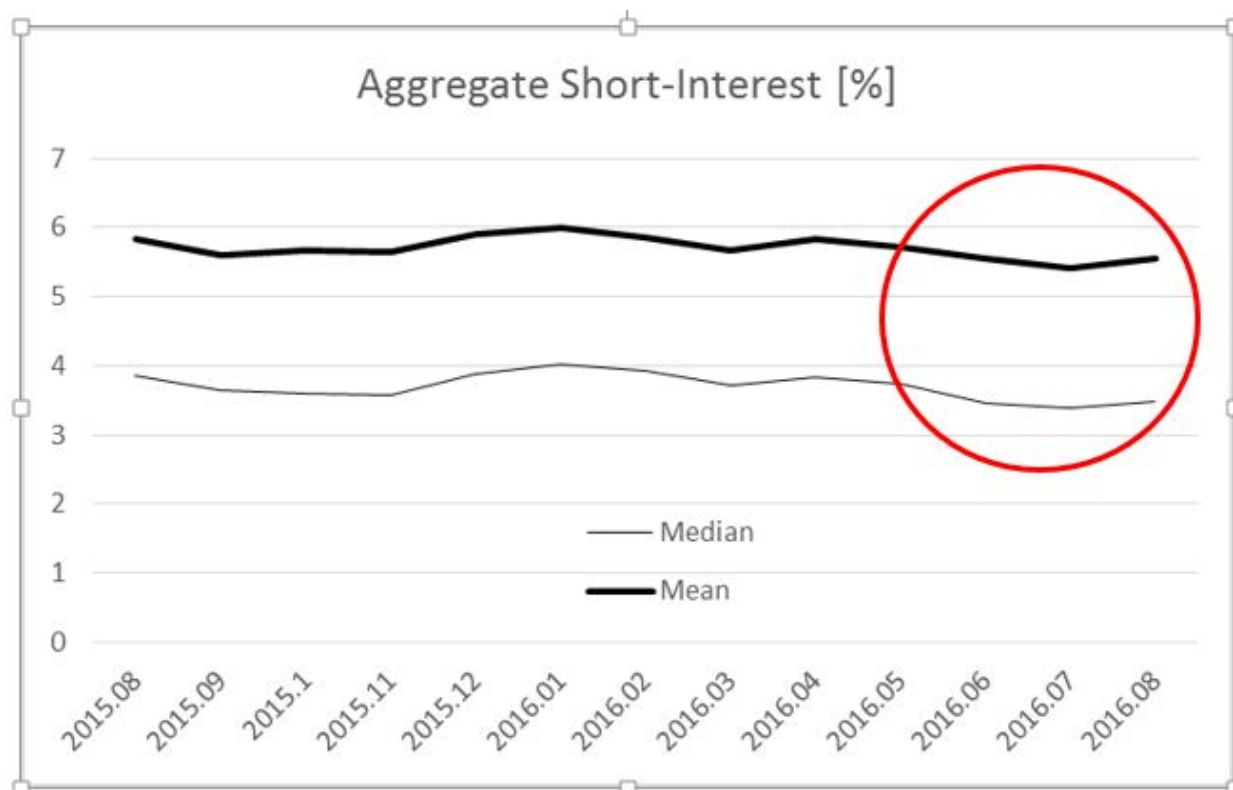
SPR							
At 16:15		0 500.8700	H 500.8700	L 497.1800	Prev 501.4304	Consensus Overview	
S&P 1500 Composite Index							
Measure	Actual	Y Est	4wk Chg%	Y+1 Est	4wk Chg%	Y+2 Est	4wk Chg%
1) Earnings Per Share	24.27	26.85	-0.30%	30.40	-0.26%	34.02	-0.30%
2) EPS Positive	25.46	27.94	-0.44%	30.85	-0.37%	34.23	-0.30%
3) Cash Flow Per Share	44.46	39.04	0.12%	44.46	0.61%	49.90	0.60%
4) Dividends Per Share	10.49	10.35	-0.34%	10.90	-0.32%	11.59	-0.71%
5) Book Value Per Share	180.66	188.28	0.15%	201.51	0.22%	216.36	0.30%
6) Sales Per Share	275.69	284.89	0.48%	302.88	0.92%	318.97	0.97%
7) EBITDA Per Share	44.41	54.43	0.60%	59.62	0.69%	64.26	0.68%
8) Long Term Growth		7.65	0.36%				
9) Net Debt Per Share	86.01	103.67	1.17%	98.82	1.10%	71.53	5.41%
10) Enterprise Value Per Share	597.77	609.06	0.18%	604.47	0.13%	573.77	0.39%
Valuation Measure	Actual	Y Est	4wk Chg%	Y+1 Est	4wk Chg%	Y+2 Est	4wk Chg%
11) Price/EPS	20.48	18.52	-1.27%	16.35	-1.31%	14.61	-1.26%
12) Price/EPS Positive	19.52	17.79	-1.13%	16.12	-1.20%	14.53	-1.27%
13) Price/Cash Flow	11.18	12.74	-1.68%	11.18	-2.16%	9.96	-2.15%
14) Dividend Yield	2.11	2.08	1.25%	2.19	1.26%	2.33	0.86%
15) Price/Book	2.75	2.64	-1.72%	2.47	-1.78%	2.30	-1.86%
16) Price/Sales	1.80	1.75	-2.03%	1.64	-2.46%	1.56	-2.51%
17) Price/EBITDA	11.19	9.13	-2.15%	8.34	-2.24%	7.74	-2.23%
18) EV/EBITDA	13.46	10.98	-0.36%	10.03	-0.45%	9.30	-0.44%
19) Net Debt/EBITDA	1.94	1.58	1.22%	1.44	1.13%	1.34	1.14%

Source: Bloomberg



### 2.3 Equity valuation indicators

Short selling may be indicative of future returns because it captures the actions of relatively sophisticated investors who may be better informed. Changes in aggregate short interest, as calculated as in Rapach et al (2015)<sup>1</sup>, were muted during the course of the third quarter.



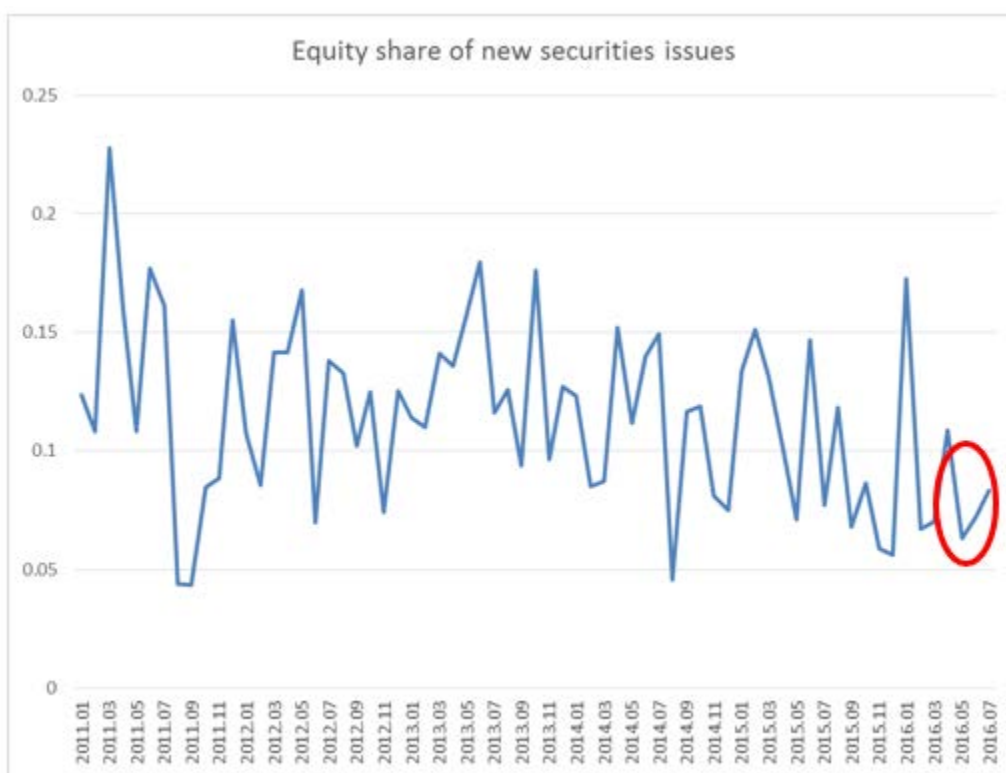
Source: FactSet, Dragon Fund calculations

Top management constitutes another group of informed market participants. We track two decisions of this group: 1. the choice of management to issue equity versus debt, and 2. insider trades.

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

<sup>1</sup> Available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2474930](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2474930)

in Table 1.46 of its Statistical Supplement to the Federal Reserve Bulletin<sup>2</sup>), has indeed been shown to predict stock returns, based on annual data from 1926-1994.<sup>3</sup> 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). As can be seen below, the equity share has been quite volatile around a declining trend over the past five years. This could be viewed as a positive fundamental signal for stocks; alternatively, it might reflect management trying to exploit the low interest rate environment by issuing more debt than they would have under a different Fed policy regime.



Source: Federal Reserve, Dragon Fund calculations

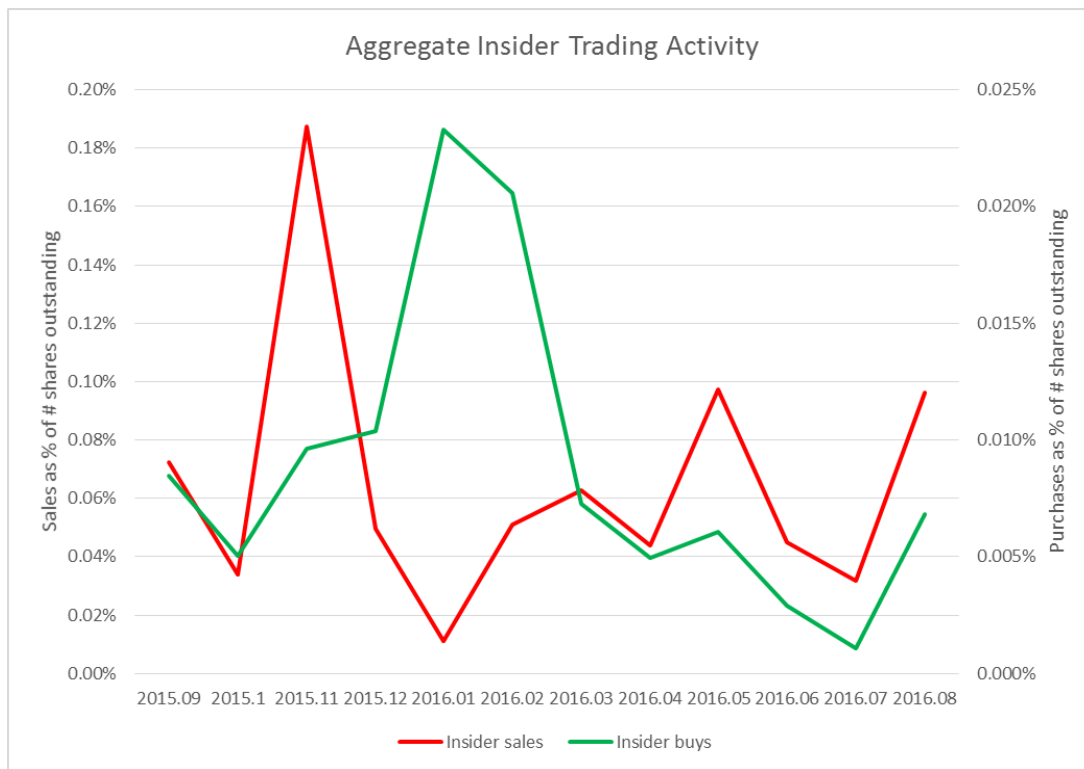
The intuition behind insider trading activity and future stock performance is even more straightforward, but the relation is complicated by trading motives other than future performance, such as diversification and incentive alignment. Another issue is that insider purchases tend to be very infrequent and it may be thus unrealistic to expect a precise aggregate valuation signal from positive insider purchases across a handful of S&P 1500 firms. In retrospect, one could rationalize

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

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



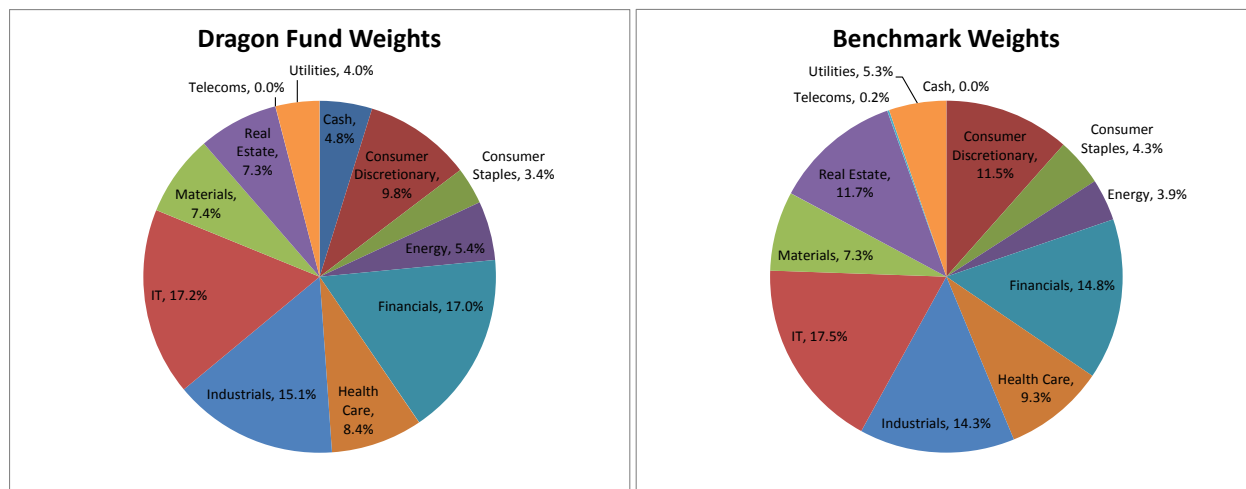
the spike in insider selling at the end of 2015 as informative about the stock market decline at the beginning of 2016. Similarly, the spike in insider purchases during this period of market weakness appears to be well-timed in view of the market recovery since February. However, insider trading has been muted during Q3 with purchases and sales moving in parallel, thus giving little indication of large moves either way.



Source: FactSet, Dragon Fund calculations

### 3 Current holdings profile as of September 30, 2016

#### 3.1 Sector allocation



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

#### 3.2 Top ten holdings

Ticker	Name	Weight [%]
FGZXX	Cash	4.9
NVDA	NVIDIA Corporation	4.4
VFH	Vanguard Financials Index Fund	3.6
LRCX	Lam Research Corporation	2.8
EA	Electronic Arts Inc.	2.7
VHT	Vanguard Health Care Index Fund	2.3
AOS	A. O. Smith Corporation	2.3
WAL	Western Alliance Bancorporation	2.3
HBI	Hanesbrands Inc.	2.1
EPR	EPR Properties	2.1
<b>Total</b>		<b>29.6</b>

Source: Dragon Fund model portfolio in FactSet

The large cash weight reflects the tendering of MFRM shares on September 16, 2016, following the takeover of MFRM by Steinhoff. The cash will be invested at the next quarterly rebalancing in December 2016.

### 3.3 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.

<b>Characteristics (medians)</b>	<b>Dragon Fund</b>	<b>S&amp;P 400</b>
Market Capitalization	5,040	3,535
# of Securities	59	400
Dividend Yield [%]	1.2	1.4
P/E using FY1 Est	15.8	18.9
Price/Cash Flow	13.7	12.3
Price/Book	2.6	2.4
Price/Sales	2.1	1.8
Est 3-5 Yr EPS Growth [%]	10.0	10.0
ROA [%]	6.4	4.7
ROE [%]	14.5	10.5
Operating Margin [%]	15.0	12.0
Net Margin [%]	9.1	6.9
LT Debt/Capital [%]	39.0	38.1

Source: Dragon Fund model portfolio in FactSet

### 3.4 Listing of Dragon Fund holdings

DRAGONFUND holdings as of September 30, 2016		Port. Ending Quantity Held	Port. Ending Market Value	Port. Ending Weight
Ticker	Custom GICS Sector			
	<b>Total</b>		<b>1,716,860</b>	<b>100.0</b>
	<b>Cash</b>		<b>82,655</b>	<b>4.8</b>
31846V567	First Amern Fds Inc Govt Oblig Z G	82,655	82,655	4.8
	<b>Consumer Discretionary</b>		<b>168,881</b>	<b>9.8</b>
HBI	Hanesbrands Inc.	1,450	36,613	2.1
NWL	Newell Brands Inc	599	31,543	1.8
DLTR	Dollar Tree, Inc.	367	28,967	1.7
EAT	Brinker International, Inc.	401	20,222	1.2
LEA	Lear Corporation	150	18,183	1.1
TOL	Toll Brothers, Inc.	575	17,170	1.0
BWA	BorgWarner Inc.	460	16,183	0.9
	<b>Consumer Staples</b>		<b>58,610</b>	<b>3.4</b>
WWAV	WhiteWave Foods Company	500	27,215	1.6
HAIN	Hain Celestial Group, Inc.	500	17,790	1.0
CALM	Cal-Maine Foods, Inc.	353	13,605	0.8
	<b>Energy</b>		<b>92,815</b>	<b>5.4</b>
SLCA	U.S. Silica Holdings, Inc.	500	23,280	1.4
XEC	Cimarex Energy Co.	140	18,812	1.1
CRZO	Carrizo Oil & Gas, Inc.	450	18,279	1.1
FANG	Diamondback Energy, Inc.	180	17,377	1.0
HES	Hess Corporation	281	15,067	0.9
	<b>Financials</b>		<b>291,928</b>	<b>17.0</b>
VFH	Vanguard Financials Index Fund	1,270	62,687	3.7
WAL	Western Alliance Bancorporation	1,050	39,417	2.3
AJG	Arthur J. Gallagher & Co.	700	35,609	2.1
GWB	Great Western Bancorp, Inc.	1,000	33,320	1.9
FDS	FactSet Research Systems Inc.	202	32,744	1.9
BKU	BankUnited, Inc.	1,000	30,200	1.8
SBNY	Signature Bank	250	29,613	1.7
BX	Blackstone Group L.P.	1,110	28,338	1.7
	<b>Health Care</b>		<b>144,279</b>	<b>8.4</b>
VHT	Vanguard Health Care Index Fund	300	39,867	2.3
UHS	Universal Health Services, Inc. Class B	240	29,573	1.7
MD	MEDNAX, Inc.	330	21,863	1.3
ENDP	Endo International Plc	1,010	20,352	1.2
ESRX	Express Scripts Holding Company	250	17,633	1.0
AKRX	Akorn, Inc.	550	14,993	0.9
	<b>Industrials</b>		<b>258,784</b>	<b>15.1</b>
AOS	A. O. Smith Corporation	402	39,714	2.3
TRN	Trinity Industries, Inc.	1,400	33,852	2.0
MAN	ManpowerGroup Inc.	425	30,711	1.8
CR	Crane Co.	425	26,779	1.6
LSTR	Landstar System, Inc.	376	25,598	1.5
ACM	AECOM	797	23,695	1.4
SNA	Snap-on Incorporated	151	22,946	1.3
PWR	Quanta Services, Inc.	750	20,993	1.2
BEAV	B/E Aerospace Inc.	361	18,649	1.1
ALGT	Allegiant Travel Company	120	15,848	0.9
	<b>Information Technology</b>		<b>295,768</b>	<b>17.2</b>
NVDA	NVIDIA Corporation	1,100	75,372	4.4
LRCX	Lam Research Corporation	500	47,355	2.8
EA	Electronic Arts Inc.	550	46,970	2.7
ACN	Accenture Plc	287	35,063	2.0
QRVO	Qorvo, Inc.	620	34,559	2.0
JCOM	j2 Global, Inc.	467	31,107	1.8
MSTR	MicroStrategy Incorporated Class A	91	15,237	0.9
PAY	VeriFone Systems, Inc.	642	10,105	0.6
	<b>Materials</b>		<b>127,829</b>	<b>7.4</b>
SMG	Scotts Miracle-Gro Company Class A	367	30,560	1.8
EXP	Eagle Materials Inc.	330	25,509	1.5
VAW	Vanguard Materials Index Fund	225	24,057	1.4
WOR	Worthington Industries, Inc.	500	24,015	1.4
EMN	Eastman Chemical Company	350	23,688	1.4
	<b>Real Estate</b>		<b>125,949</b>	<b>7.3</b>
EPR	EPR Properties	460	36,220	2.1
OHI	Omega Healthcare Investors, Inc.	987	34,989	2.0
HF	HFF, Inc. Class A	1,161	32,148	1.9
GEO	GEO Group Inc	950	22,591	1.3
	<b>Utilities</b>		<b>69,362</b>	<b>4.0</b>
ALE	ALLETE, Inc.	600	35,772	2.1
AEE	Ameren Corporation	683	33,590	2.0

#### 4 Dragon Fund analyst team and contact information (Fall 2016/17)

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

##### Consumer Discretionary:

- Aleksandr Gampel, [ag3232@drexel.edu](mailto:ag3232@drexel.edu)
- Alex Kirk, [jak366@drexel.edu](mailto:jak366@drexel.edu)
- Ira Miller, [ism27@drexel.edu](mailto:ism27@drexel.edu)

##### Consumer Staples:

- Elizabeth Cahill, [eac85@drexel.edu](mailto:eac85@drexel.edu)
- Tony Grelli, [ajg345@drexel.edu](mailto:ajg345@drexel.edu)
- Ryan Lee, [rbl37@drexel.edu](mailto:rbl37@drexel.edu)

##### Energy:

- Cassidy Baird, [cdb74@drexel.edu](mailto:cdb74@drexel.edu)
- Austin Donaghue, [ald367@drexel.edu](mailto:ald367@drexel.edu)
- Matt Klotz, [mrk82@drexel.edu](mailto:mrk82@drexel.edu)

##### Financials

- Wilson Dang, [wd82@drexel.edu](mailto:wd82@drexel.edu)
- Gary Diegert, [gpd29@drexel.edu](mailto:gpd29@drexel.edu)
- Jake Keller, [jak369@drexel.edu](mailto:jak369@drexel.edu)

##### Healthcare

- Yating Hu, [yh449@drexel.edu](mailto:yh449@drexel.edu)
- Abror Ibragimkhodjaev, [ari34@drexel.edu](mailto:ari34@drexel.edu)
- Kyle Lukens, [kfl34@drexel.edu](mailto:kfl34@drexel.edu)

##### Industrials

- Igor Gateniuk, [ig67@drexel.edu](mailto:ig67@drexel.edu)
- Calvin Thomas, [cst53@drexel.edu](mailto:cst53@drexel.edu)
- Miles Ward, [mbw46@drexel.edu](mailto:mbw46@drexel.edu)

##### IT

- Hima Mistry, [hgm27@drexel.edu](mailto:hgm27@drexel.edu)
- Henry Moldavskiy, [hjm48@drexel.edu](mailto:hjm48@drexel.edu)
- Puyu Zheng, [pz55@drexel.edu](mailto:pz55@drexel.edu)

The Dragon Fund  
FIN 341/Prof. Daniel Dorn



#### Materials

- Patrick Battaglia, [prb35@drexel.edu](mailto:prb35@drexel.edu)
- Phillip Nabedrik, [pin24@drexel.edu](mailto:pin24@drexel.edu)
- Han Vo, [hmv24@drexel.edu](mailto:hmv24@drexel.edu)

#### Utilities

- Josh Buchalter, [jeb425@drexel.edu](mailto:jeb425@drexel.edu)
- Sam diPasqua, [sjd76@drexel.edu](mailto:sjd76@drexel.edu)
- Will Gabrielsen, [wsg29@drexel.edu](mailto:wsg29@drexel.edu)

Faculty advisor: Daniel Dorn, [dd79@drexel.edu](mailto:dd79@drexel.edu)