

Indiana Public Retirement System Select Equity December 31, 2017



Select Equity Fourth Quarter, 2017 Report

During the fourth quarter, the INPRS Select Equity account returned 3.10% net of fees, trailing the 7.86% return of the Russell 1000 Growth Index. For the full year, the INPRS Select Equity account returned 13.18% net of fees, trailing the 30.21% return of the Russell 1000 Growth Index.

Stocks trended upward during October, responding to better than expected economic reports and corporate earnings. Stocks started the month with a gain, as investors responded enthusiastically to reports of stronger than expected manufacturing activity in the US, China, and Japan. The rally extended through the next three sessions, helped along by reports of solid car sales and better than expected durable goods and factory orders. By the close on October 5, the Russell 1000 Growth was up 1.3%. Growth stocks traded in a narrow range for several sessions before beginning a sustained rally on October 11. By the close on October 20, the Russell 1000 Growth was up 2.7%. Stocks stumbled on October 23 as investors appeared to take profits ahead of earnings reports scheduled for several market leaders at the end of the week. Equities took another leg down on October 25, as sharp criticism of President Trump by Republican Senators Corker and Flake raised doubts about the prospects for tax reform. Stocks surged back on October 27, following better than expected earnings reports from Alphabet, Amazon, and Microsoft. The Russell 1000 Growth returned 3.87% for the month overall.

Select Equity trailed the benchmark chiefly because stable stocks were out of favor. Stock selection also contributed to underperformance as strong returns from **Autodesk**, Caterpillar, Alphabet, and Nike were offset by weak returns from General Electric, Merck, Schlumberger, Gilead Sciences, and Amgen. General Electric reported O3 earnings that were lower than analysts' estimates and lowered its forecast for full year earnings. New CEO John Flannery will unveil his plans to improve operations and divest non-core businesses on November 13. Merck beat earnings expectations and revised its 2017 earnings forecast higher. However, the firm missed revenue expectations and also announced a modification to a current phase 3 trial of cancer drug Keytruda that will push the trial's conclusion date into 2019. Schlumberger reported Q3 earnings and revenues that matched expectations but warned that achieving Q4 expectations would be challenging. Gilead and Amgen both beat expectations for earnings and revenues, but failed to match expectations for some legacy medications. For both firms, sales of newer medications were better than expected. OakBrook remains confident in the health care holdings mentioned above.

During November, fluctuating prospects for tax legislation were a major driver of US stock price movements. The month began with stocks on an upward trend. By the close on November 8, the Russell 1000 Growth was at a record high up 1.1% for the month overall. On November 9, concerns that the GOP tax reform plan might be delayed caused the market to give up approximately half of these gains. The overall market continued to drift lower for several sessions. By the close on November 15, the market



was in negative territory for the month overall. On November 16, stocks surged back with a strong rally after the House Republicans succeeded in passing a tax reform bill. On November 21, Technology and Health Care shares led the market to a record high. The market traded in a tight range until November 28, when news that the Senate Budget Committee had voted to send a tax bill to the Senate floor for debate contributed to a strong market rally. While there was little change in the overall level of the market the next day, there was a substantial rotation out of the technology sector and into the financial sector amid speculation that the final form of the tax bill would be more beneficial to financial firms than technology firms. Stocks posted strong gains on the final day of the month as Senator McCain's statement that he supported the tax bill was viewed as increasing the probability that the Senate tax bill would pass. The Russell 1000 Growth returned 3.04% for the month overall. After outperforming for most of the month, Select Equity fell behind the benchmark on the 29th when the market had an unexpectedly negative reaction to **Autodesk**'s earnings report.

During December, prospects for tax legislation continued to be the major driver of US stock price movements. The month began with a jolt, as news that former National Security Advisor Michael Flynn would plead guilty to lying to federal agents pushed the US stock market down as much as 1.5% in early trading. However, the market was able to recover most of its losses before the close due to growing optimism that the US Senate would pass its tax reform bill. Following passage of the Senate bill, stocks opened with strong gains on Monday, December 4. However, the gains evaporated before the close as investors swapped out of high flying technology shares in favor of sectors expected to see greater benefits from the final reconciled tax bill. Uncertainty over what features of the conflicting House and Senate tax packages would prevail in reconciliation negotiations pressured stocks on December 5, leaving the Russell 1000 Growth down 1.2% for the month overall at the close. On December 7, economically sensitive Industrial and Materials stocks led the US market to a gain. The rally accelerated on December 8, following the report of stronger than expected job creation. As the rally continued, the Russell 1000 Growth achieved new record highs on December 11 and 13. On December 14, the Russell 1000 Growth declined 0.3% as Senator Rubio announced he would vote against the final reconciled tax bill if it did not include a larger child tax credit. On December 15, US stocks rallied back to a new record high as Senator Corker, who was the only Republican to vote against the Senate tax bill, indicated he would vote in favor of the reconciled tax bill. Following the release of the reconciled tax bill, stocks extended their run of record highs on December 18. In contrast to the market gyrations leading up to the event, reaction to the final passage of the reconciled tax bill on December 20 was muted. The US market traded in a narrow range for much of the remainder of the month, then sold off during the year's final hour of trading. The Russell 1000 Growth returned 0.78% for the month overall. Select Equity out performed, benefitting from good stock selection.

During the quarter, OakBrook eliminated the portfolio's positions in **General Electric**, **Procter & Gamble**, **Schlumberger**, and **Stericycle**. Sale proceeds were used to increase the existing position in **Alphabet** and to establish new positions in **Activision Blizzard**, **Analog Devices**, **Apple**, **Facebook**, and **Home Depot**. Given the length of time new



CEO Flannery spent reviewing General Electric's operations, the plan he presented on November 13 to improve General Electric's operations and divest non-core businesses was disappointing. We suspect it will take several years for General Electric to gain traction and generate sustainable earnings growth. Although Procter & Gamble has had success in growing earnings per share through cost reductions and share repurchases, it continues to lose market share. This limits the stock's prospects for appreciation. Schlumberger's management has done a good job of strengthening the firm's Market Power through strategic acquisitions during the past few years. We expect this will benefit the stock when oil prices eventually rise and stimulate production and exploration in overseas markets. However, strong production from North American shale oil fields appears likely to keep oil prices near current levels for some time. Stericycle announced its intent to consolidate the hundreds of different software systems it currently has into a single enterprise resource planning (ERP) system. Management's expectation is that the process will take five years and cost in excess of \$100 million. OakBrook's experience with companies that have undergone similar consolidations is that they can be extremely disruptive to business operations. They also generally take longer and cost more than expected to implement.

Examining OakBrook's purchases, Activision Blizzard has several video game franchises with loyal customers who return to buy regular updates. In the past, the stock was subject to boom and bust cycles centered on the sales success of updates to its most popular franchise, Call of Duty. This has been mitigated by the development of additional strong franchises and the increasing popularity of in-game purchases. A move toward direct digital sales of game updates versus sales of physical game media through third parties has also enhanced margins. Activision appears likely to generate stronger and steadier earnings than it has generated in the past. Analog Devices is a leading provider of computer chips that convert analog signals to digital signals in the automotive, communications, and industrials fields. The stock is attractively valued and the firm is well positioned to take advantage of growth in computing power within automobiles as well as the increasing connectivity of industrial devices. Apple's valuation relative to the market is below its 10 year average. The firm is likely to benefit from strong sales of its latest edition iPhones near term and continued growth in recurring revenue from its app store in the long run. Revenue from services has doubled during the past four years. iPhone sales account for 50% of revenues today, down from 70% in the past. Facebook operates the world's largest social networking platform with more than 2 billion users active at least monthly. Facebook generates revenue by selling advertisement placements to marketers. The depth of information Facebook has on the members of its network allows it to target ads effectively. This informational advantage should allow the firm to continue generating strong revenue gains and increase its share of the advertising market. Home Depot is the world's largest home improvement retailer. It benefits from a strong brand name as well as economies of scale. The stock's valuation relative to the market is below its 5 year average. Current sales momentum from summer storm activity may last a year or more. In addition, the firm should benefit from scarcity of new homes. With limited opportunities to trade up, homeowners will likely focus on updating their current homes. OakBrook believes the addition of these new holdings positions the portfolio to



deliver stronger growth over the next year and improve performance relative to the Russell 1000 Growth benchmark.

Looking ahead, we expect the growth of the US economy to accelerate due to the combination of lower corporate tax rates and reduced regulatory burdens. However, these stimuli will be partially offset by rising interest rates. The Federal Open Market Committee is currently expected to increase the Fed Funds rate three times during 2018. The Federal Reserve is also expected to increase the pace of the drawdown of its holdings of government bonds and mortgages. The US stock market was unusually upbeat during 2017, posting a gain during each month of the year. We expect the market to revert toward a more normal level of volatility during 2018 due to rising interest rates and continuing tensions with North Korea and other foreign governments.



OakBrook Investments, LLC **PORTFOLIO ACTIVITY SUMMARY** *Indiana Public Retirement System From 11-30-17 to 12-31-17*

Portfolio Value on 11-30-17 25,354,872.93 Contributions 0.00 Withdrawals -35,862.39 **Realized Gains** 0.00 **Unrealized Gains** 186,994.79 Interest 62.86 Dividends 88,049.12 Portfolio Value on 12-31-17 25,594,117.31

OakBrook Investments, LLC TWR FOR SELECTED PERIODS ANNUALIZED Indiana Public Retirement System December 31, 2017

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	Month To Date	Quarter To Date	Year To Date	Latest 1 Year	Inception To Date
Portfolio Gross of Fees	1.08	3.19	13.54	13.54	15.07
Portfolio Net of Fees	1.06	3.10	13.18	13.18	14.70
Russell 1000 Growth	0.78	7.86	30.21	30.21	29.08
S&P 500 Index	1.11	6.64	21.83	21.83	24.25



OakBrook Investments, LLC PERFORMANCE HISTORY Indiana Public Retirement System From 10-31-16 to 12-31-17

			Percent Return Per Period					ve TWR = 100	t	
Ti)	me Pe	eriod	Portfolio Gross of Fees	Portfolio Net of Fees	Russell 1000 Growth	S&P 500 Index	Portfolio Gross of Fees	Portfolio Net of Fees	Russell 1000 Growth	S&P 500 Index
		10-31-2016					100.00	100.00	100.00	100.00
10-31-2016	То	11-30-2016	2.44	2.41	2.18	3.70	102.44	102.41	102.18	103.70
11-30-2016	to	12-31-2016	1.28	1.25	1.24	1.98	103.75	103.69	103.45	105.75
12-31-2016	to	01-31-2017	2.03	2.01	3.37	1.90	105.86	105.78	106.94	107.76
01-31-2017	to	02-28-2017	3.49	3.47	4.15	3.97	109.56	109.44	111.38	112.04
02-28-2017	to	03-31-2017	-0.47	-0.50	1.16	0.12	109.04	108.90	112.67	112.17
03-31-2017	to	04-30-2017	0.21	0.18	2.29	1.03	109.26	109.09	115.24	113.32
04-30-2017	to	05-31-2017	1.80	1.77	2.60	1.41	111.23	111.03	118.24	114.92
05-31-2017	to	06-30-2017	0.39	0.36	-0.26	0.62	111.66	111.43	117.93	115.63
06-30-2017	to	07-31-2017	1.04	1.01	2.66	2.06	112.82	112.55	121.06	118.01
07-31-2017	to	08-31-2017	0.37	0.35	1.83	0.31	113.24	112.94	123.28	118.37
08-31-2017	to	09-30-2017	0.81	0.78	1.30	2.06	114.16	113.82	124.88	120.81
09-30-2017	to	10-31-2017	-0.07	-0.09	3.87	2.33	114.09	113.72	129.72	123.63
10-31-2017	to	11-30-2017	2.15	2.12	3.04	3.07	116.54	116.13	133.66	127.42
11-30-2017	to	12-31-2017	1.08	1.06	0.78	1.11	117.80	117.36	134.70	128.84



OakBrook Investments, LLC PORTFOLIO SUMMARY Indiana Public Retirement System

December 31, 2017

Security Type	Total Cost	Market Value	Pct. Assets	Cur. <u>Yield</u>	Est. Annual Income
Equities					
COMMON STOCK					
Industrials	2,069,235.49	2,825,457.53	11.0	2.2	63,203.92
Consumer Discretionary	3,612,235.56	4,030,168.49	15.7	1.6	66,238.72
Consumer Staples	2,340,535.60	2,547,689.88	10.0	2.4	60,938.68
Health Care	6,023,320.52	6,553,644.87	25.6	2.0	129,375.76
Financials	991,639.21	1,405,731.25	5.5	1.8	25,410.00
Information Technology	6,927,776.84	8,103,159.87	31.7	0.8	65,840.04
COMMON STOCK	21,964,743.22	25,465,851.89	99.5	1.6	411,007.12
-	21,964,743.22	25,465,851.89	99.5	1.6	411,007.12
Cash and Equiv.					
CASH AND EQUIVALENTS	128,265.42	128,265.42	0.5	0.0	0.00
	128,265.42	128,265.42	0.5	0.0	0.00
TOTAL PORTFOLIO	22,093,008.64	25,594,117.31	100.0	1.6	411,007.12



OakBrook Investments, LLC PORTFOLIO APPRAISAL Indiana Public Retirement System

December 31, 2017

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets	Cur. Yield
COMMON STO	СК						
8,110.0000	Activision Blizzard Inc.	61.68	500,253.19	63.32	513,525.20	2.0	0.5
1,205.0000	Alphabet Inc. Class C	822.23	990,784.89	1,046.40	1,260,912.00	4.9	0.0
7,531.0000	Amgen, Inc.	148.68	1,119,722.52	173.90	1,309,640.90	5.1	3.0
5,870.0000	Analog Devices, Inc.	85.72	503,159.38	89.03	522,606.10	2.0	2.0
5,190.0000	Apple Inc.	170.81	886,504.42	169.23	878,303.70	3.4	1.5
15,377.0000	Autodesk, Inc.	74.34	1,143,162.45	104.83	1,611,970.91	6.3	0.0
1,710.0000	Biogen Idec Inc.	281.85	481,968.19	318.57	544,754.70	2.1	0.0
9,625.0000	CME Group	103.03	991,639.21	146.05	1,405,731.25	5.5	1.8
11,778.0000	Caterpillar Inc.	88.13	1,038,037.50	157.58	1,855,977.24	7.3	2.0
5,030.0000	Facebook, Inc.	177.14	891,036.33	176.46	887,593.80	3.5	0.0
13,578.0000	Gilead Sciences, Inc.	72.51	984,607.14	71.64	972,727.92	3.8	2.9
25,439.0000	Johnson Controls International	40.54	1,031,197.99	38.11	969,480.29	3.8	2.7
11,380.0000	McCormick & Company, Inc.	95.90	1,091,374.42	101.91	1,159,735.80	4.5	2.0
13,261.0000	Medtronic, Plc	81.64	1,082,668.73	80.75	1,070,825.75	4.2	2.3
19,255.0000	Merck & Co., Inc.	60.33	1,161,639.89	56.27	1,083,478.85	4.2	3.4
21,549.0000	NIKE, Inc.	53.27	1,147,810.62	62.55	1,347,889.95	5.3	1.3
11,574.0000	PepsiCo, Inc.	107.93	1,249,161.18	119.92	1,387,954.08	5.4	2.7
12,568.0000	QUALCOMM, Inc.	66.11	830,856.42	64.02	804,603.36	3.1	3.6
17,800.0000	Starbucks Corporation	52.88	941,191.30	57.43	1,022,254.00	4.0	2.1
2,840.0000	The Home Depot, Inc.	178.38	506,607.15	189.53	538,265.20	2.1	1.9
10,434.0000	The Walt Disney Company	97.43	1,016,626.49	107.51	1,121,759.34	4.4	1.6
14,145.0000	Varian Medical Systems, Inc.	84.32	1,192,714.05	111.15	1,572,216.75	6.1	0.0
14,240.0000	Visa Inc.	83.01	1,182,019.76	114.02	1,623,644.80	6.3	0.7
		_	21,964,743.22		25,465,851.89	99.5	1.6
CASH AND EQU	JIVALENTS						
-	Cash		44,249.43		44,249.43	0.2	0.0
	Dividends Receivable		84,015.99		84,015.99	0.3	0.0
		_	128,265.42	_	128,265.42	0.5	0.0
TOTAL PORTF	OLIO		22,093,008.64		25,594,117.31	100.0	1.6



OakBrook Investments, LLC DATE TO DATE GAINS AND LOSSES Indiana Public Retirement System From 11-30-17 to 12-31-17

					Realized Gai	n or Loss	Unrealized G	ain or Loss
Security	11-30-17 Market Value	Additions Withdrawals	12-31-17 <u>Market Value</u>	12-31-17 Cost Basis	Cost	Market	Cost	Market
COMMON STOCK								
Activision Blizzard Inc.	506,064.00	0.00	513,525.20	500,253.19	0.00	0.00	13,272.01	7,461.20
Alphabet Inc. Class C	1,230,799.05	0.00	1,260,912.00	990,784.89	0.00	0.00	270,127.11	30,112.95
Amgen, Inc.	1,322,895.46	0.00	1,309,640.90	1,119,722.52	0.00	0.00	189,918.38	-13,254.56
Analog Devices, Inc.	505,465.70	0.00	522,606.10	503,159.38	0.00	0.00	19,446.72	17,140.40
Apple Inc.	891,901.50	0.00	878,303.70	886,504.42	0.00	0.00	-8,200.72	-13,597.80
Autodesk, Inc.	1,686,856.90	0.00	1,611,970.91	1,143,162.45	0.00	0.00	468,808.46	-74,885.99
Biogen Idec Inc.	550,910.70	0.00	544,754.70	481,968.19	0.00	0.00	62,786.51	-6,156.00
CME Group	1,439,322.50	-40,040.00	1,405,731.25	991,639.21	0.00	0.00	414,092.04	-33,591.25
Caterpillar Inc.	1,662,464.70	0.00	1,855,977.24	1,038,037.50	0.00	0.00	817,939.74	193,512.54
Facebook, Inc.	891,215.40	0.00	887,593.80	891,036.33	0.00	0.00	-3,442.53	-3,621.60
Gilead Sciences, Inc.	1,015,362.84	-7,060.56	972,727.92	984,607.14	0.00	0.00	-11,879.22	-42,634.92
Johnson Controls International	957,523.96	-6,614.14	969,480.29	1,031,197.99	0.00	0.00	-61,717.70	11,956.33
McCormick & Company, Inc.	1,162,808.40	-5,917.60	1,159,735.80	1,091,374.42	0.00	0.00	68,361.38	-3,072.60
Medtronic, Plc	1,089,125.93	-6,100.06	1,070,825.75	1,082,668.73	0.00	0.00	-11,842.98	-18,300.18
Merck & Co., Inc.	1,064,223.85	-9,242.40	1,083,478.85	1,161,639.89	0.00	0.00	-78,161.04	19,255.00
NIKE, Inc.	1,301,990.58	-4,309.80	1,347,889.95	1,147,810.62	0.00	0.00	200,079.33	45,899.37
PepsiCo, Inc.	1,348,602.48	0.00	1,387,954.08	1,249,161.18	0.00	0.00	138,792.90	39,351.60
QUALCOMM, Inc.	833,761.12	0.00	804,603.36	830,856.42	0.00	0.00	-26,253.06	-29,157.76
Starbucks Corporation	1.029.196.00	0.00	1,022,254.00	941.191.30	0.00	0.00	81.062.70	-6,942.00
The Home Depot, Inc.	510,688.80	0.00	538,265.20	506,607.15	0.00	0.00	31,658.05	27,576.40
The Walt Disney Company	1,093,691.88	-8,764.56	1,121,759.34	1,016,626.49	0.00	0.00	105,132,85	28,067.46
Varian Medical Systems, Inc.	1,580,703.75	0.00	1,572,216.75	1,192,714.05	0.00	0.00	379,502.70	-8,487.00
Visa Inc.	1,603,281.60	0.00	1,623,644.80	1,182,019.76	0.00	0.00	441,625.04	20,363.20
	25,278,857.10		25,465,851.89	21,964,743.22	0.00	0.00	3,501,108.67	186,994.79
CASH AND EQUIVALENTS								
Cash	42.637.73	1.548.84	44.249.43	44,249,43				
Dividends Receivable	33,378.10	50,637.89	84,015.99	84,015.99				
	76,015.83	,	128,265.42	128,265.42				
TOTAL PORTFOLIO	25,354,872.93		25,594,117,31	22,093,008.64	0.00	0.00	3.501.108.67	186.994.79



OakBrook Investments, LLC FUNDAMENTAL DATA Indiana Public Retirement System December 31, 2017

Security	Price	Annual Dividend	<u>Yield</u>	Latest 4 Qtr. PE	Latest 4 Qtr. EPS	Latest Annual Book Value	Latest Annual Price/ Book	Beta
COMMON STOCK								
Activision Blizzard Inc.	63.32	0.300	0.5	40.1	1.58	13.18	4.8	1.17
Alphabet Inc. Class C	1.046.40	0.000	0.0	31.0	33.72	226.11	4.6	1.16
Amgen, Inc.	173.90	5.280	3.0	14.3	12.20	44.36	3.9	1.10
Analog Devices, Inc.	89.03	1.800	2.0	23.1	3.86	27.57	3.2	1.35
Apple Inc.	169.23	2.520	1.5	18.4	9.19	26.15	6.5	1.10
Autodesk, Inc.	109.23	0.000	0.0	N M	-2.50	0.49	215.3	1.10
Biogen Idec Inc.	318.57	0.000	0.0	16.9	18.82	60.81	5.2	1.38
CME Group	146.05	2.640	1.8	32.0	4.56	61.52	2.4	0.93
Caterpillar Inc.	157.58	3.120	2.0	30.1	5.24	26.27	6.0	1.22
Facebook, Inc.	176.46	0.000	0.0	34.2	5.16	24.50	7.2	1.09
Gilead Sciences, Inc.	71.64	2.080	2.9	8.0	8.97	19.01	3.8	0.96
Johnson Controls International	38.11	1.040	2.7	15.6	2.44	22.03	1.7	1.03
McCormick & Company, Inc.	101.91	2.080	2.0	25.4	4.01	19.25	5.3	0.63
Medtronic, Plc	80.75	1.840	2.3	22.6	3.58	38.02	2.1	0.72
Merck & Co., Inc.	56.27	1.920	3.4	17.4	3.23	14.03	4.0	0.85
NIKE, Inc.	62.55	0.800	1.3	27.1	2.31	9.03	6.9	1.10
PepsiCo, Inc.	119.92	3.220	2.7	23.5	5.11	9.31	12.9	0.65
QUALCOMM, Inc.	64.02	2.280	3.6	18.7	3.43	20.86	3.1	1.03
Starbucks Corporation	57.43	1.200	2.1	27.5	2.09	3.81	15.1	1.01
The Home Depot, Inc.	189.53	3.560	1.9	26.3	7.21	2.18	87.1	1.11
The Walt Disney Company	107.51	1.680	1.6	18.9	5.70	27.54	3.9	1.07
Varian Medical Systems, Inc.	111.15	0.000	0.0	30.5	3.65	16.30	6.8	0.88
Visa Inc.	114.02	0.780	0.7	33.2	3.44	13.12	8.7	0.94
COMMON STOCK A			1.6	24.8	6.13	32.24	20.8	1.03
OVERALL AVERAGE			1.6	24.8	6.13	32.24	20.8	1.03

A NM in the PE column indicates that a PE is not meaningful.



OakBrook Investments, LLC PURCHASE AND SALE Indiana Public Retirement System From 12-01-17 To 12-31-17

Trade	Settle			Unit	
Date	Date	Quantity	Security	Price	Amount

No transactions this period

OakBrook Investments, LLC COMMISSION PURPOSE Indiana Public Retirement System From 12-01-17 to 12-31-17

Commission	Avg. Commission	Percent of Total
Amount	Per Share	Commission

No commissions this period



OakBrook urges our clients to compare information provided in its statement with those from your custodian. If you are not receiving a custodial statement, please notify OakBrook.