

NASDAQ US 500 Large Cap Index vs S&P 500

A Case Study Comparing the Two Large Cap Indexes

The Nasdaq US 500 Large Cap Index (NQUS500LC) consists of the largest 500 stocks ranked by float-adjusted market capitalizations and assigned to the country of the United States according to the Nasdaq Global Index Family Methodology (<https://indexes.nasdaqomx.com/docs/NQGIFamilyMethodology.pdf>). The index provides a transparent, rules-based benchmark for investors who want to track the broad US large cap equity market.

The Nasdaq US 500 Large Cap Index (NQUS500LC) is constructed very similarly to and tracked closely with another popular US large cap benchmark, the S&P 500 index (SPX), but a few nontrivial differences exist:

1. The Nasdaq US 500 Large Cap only includes securities assigned to the country of the United States according to the Nasdaq Global Index Family Methodology (<https://indexes.nasdaqomx.com/docs/NQGIFamilyMethodology.pdf>). S&P 500 may include securities that are globally incorporated, domiciled or otherwise less representing the US large cap equity market.
2. The inclusion and exclusion of securities in Nasdaq US 500 Large Cap is purely driven by ranking rules-based methodology, while the S&P 500 has an index committee assigned to make discretionary decisions on activities.
3. Nasdaq US 500 Large Cap includes only the primary share class of the same company, while S&P 500 may list more than one share class.
4. Both indexes use the float-adjusted market capitalization weightings. But because of the above discussed share inclusion rule differentials on point 3, we can see some large weighting discrepancies on company aggregated levels.

Table 1 has shown that the top 25 names in Nasdaq US 500 Large Cap and S&P 500 are mostly identical, except for Alphabet (GOOGL) and Berkshire Hathaway (BRK.B). Alphabet (GOOGL) is ranked number 9 with an index weight of 1.38% in Nasdaq US 500 Large Cap as of March 26, 2018. Since S&P 500 includes both of Alphabet's share classes A and C (GOOG and GOOGL) with rank numbers 8 and 10, respectively, the aggregated index weight has added up to 2.8%. For Berkshire Hathaway (BRK.B), Nasdaq US 500 Large Cap ranks it at number 12 with an index weight of 1.09%. S&P 500 ranks it at number 5 and weights it at 1.68%. The weight in S&P 500 is much higher than Nasdaq US 500 Large Cap despite that both indexes include only the liquid Class-B. This is because the S&P 500 index committee made a discretionary decision to exclude Class-A, but still accounts for its market capitalization into Class-B. For Nasdaq US 500 Large Cap, the weighting rule is consistent over time with the float-adjusted market capitalization applied to the most liquid share class of the company, a better practice from a trading perspective.

Table 2 summarizes the stocks that are missing from the S&P 500 but were included by Nasdaq US 500 Large Cap because they met the quantitative criteria of top 500 ranks by market capitalization. In total, they represent 3.77% of the Nasdaq US 500 Large Cap weights and more than half of them (44 out of 71) are concentrated in three industries: Technology, Financials, and Industrials.

Table 3 further provides the detailed list of all 71 missing stocks from the S&P 500. Many well-known, large cap companies are in the list: Tesla, Las Vegas Sands, TD Ameritrade, Twitter, to name just a few.

Table 4 summarizes the names that exist in S&P 500 but not in the Nasdaq US 500 Large Cap. They are in total representing 3.58% of the S&P 500 weights and more than half of them (44 out of 73) are concentrated in three sectors: Consumer Services, Financials, and Industrials.

Table 5 further provides the detailed list of all 73 missing stocks from the Nasdaq US 500 Large Cap. There are 7 names that are involved with announced M&A activities and 9 names are excluded due to not having a country designation of US as part of the Nasdaq Global Index Family Country assignment process laid out in the index methodology (labeled “no country designation” in the table below). The other 57 names are dropped due to lower ranks than the top 500 based on float-adjusted market capitalization.

Despite all the discrepancies in rules for security inclusion and weighting, the two indexes appeared to have very similar sector exposures (Chart 1). S&P 500 is slightly overweight in Technology and relatively underweight in Financials than the Nasdaq US 500 Large Cap. Their historical performance statistics are also closely tracked (chart 2 and table 6).

Table 1: Top 25 Companies in Nasdaq US 500 Large Cap as of March 26, 2018

SYMBOL	COMPANY NAME	ICB SECTOR	NQ RANK	NQ WEIGHT	SP RANK	SP WEIGHT
AAPL	APPLE INC.	Technology	1	4.03	1	3.79
MSFT	MICROSOFT CORP	Technology	2	3.20	2	3.04
AMZN	AMAZON.COM INC	Consumer Services	3	2.92	3	2.72
JPM	JP MORGAN CHASE CO	Financials	4	1.77	6	1.66
FB	FACEBOOK INC	Technology	5	1.74	4	1.73
JNJ	JOHNSON AND JOHNS DC	Health Care	6	1.60	7	1.52
XOM	EXXON MOBIL CP	Oil & Gas	7	1.49	9	1.40
BAC	BK OF AMERICA CP	Financials	8	1.44	11	1.26
GOOGL	ALPHABET CL A CMN	Technology	9	1.38	8,10	2.80
WFC	WELLS FARGO & CO NEW	Financials	10	1.21	13	1.01
INTC	INTEL CORP	Technology	11	1.11	12	1.05
BRK.B	BERKSHIRE HATH HLD B	Financials	12	1.09	5	1.68
V	VISA INC.	Financials	13	1.05	16	0.95
CVX	CHEVRON CORP	Oil & Gas	14	1.03	14	0.98
T	AT&T INC.	Telecommunications	15	1.03	15	0.96
PFE	PFIZER INC	Health Care	16	0.99	18	0.93
CSCO	CISCO SYSTEMS INC	Technology	17	0.98	19	0.93
UNH	UNITEDHEALTH GROUP	Health Care	18	0.93	17	0.93
PG	PROCTER GAMBLE CO	Consumer Goods	19	0.92	21	0.87
HD	HOME DEPOT INC	Consumer Services	20	0.91	20	0.91
VZ	VERIZON COMMUN	Telecommunications	21	0.91	22	0.87
KO	COCA COLA CO THE	Consumer Goods	22	0.87	25	0.74
BA	BOEING CO	Industrials	23	0.85	23	0.80
C	CITIGROUP INC	Financials	24	0.84	24	0.79
MA	MASTERCARD INC	Financials	25	0.77	26	0.72

Source: Nasdaq, Bloomberg

Table 2: Stocks Missing from S&P 500

SECTOR	NQ WEIGHT	COUNT
Technology	1.02	17
Financials	0.82	15
Industrials	0.56	12
Consumer Services	0.45	9
Consumer Goods	0.34	5
Health Care	0.20	5
Oil & Gas	0.17	4
Basic Materials	0.12	3
Telecommunications	0.10	1
Total	3.77	71

Table 3: Detailed List of Stocks Missing from S&P 500

RANK	SYMBOL	COMPANY NAME	ICB SECTOR	NQ WEIGHT
160	TSLA	TESLA, INC.	Consumer Goods	0.15
164	LVS	LAS VEGAS SANDS CORP	Consumer Services	0.14
183	AMTD	TD AMERITRADE HLDG	Financials	0.13
201	TWTR	TWITTER, INC.	Technology	0.11
203	NOW	SERVICENOW, INC.	Technology	0.11
219	TMUS	T-MOBILE US CMN	Telecommunications	0.10
264	PANW	PALO ALTO NETWORKS	Technology	0.08
267	FLT	FLEETCOR TECH	Industrials	0.08
271	MKL	MARKEL CP HLDG CO	Financials	0.08
288	YUMC	YUM CHINA HLDGS	Consumer Services	0.07
293	CNA	C N A FINANCIAL CP	Financials	0.07
299	DVMT	DELL TECHNOLOGIES V	Technology	0.07
312	FRC	FIRST REPUBLIC BANK	Financials	0.07
313	MXIM	MAXIM INTEGRATED	Technology	0.07
324	SPLK	SPLUNK INC.	Technology	0.06
325	LBRDK	LIBERTY BROADBD C CM	Financials	0.06
329	SNAP	SNAP INC.	Technology	0.06
343	CE	CELANESE CORPORATION	Basic Materials	0.06
344	LEA	LEAR CORPORATION	Consumer Goods	0.06
345	CSGP	COSTAR GROUP INC	Industrials	0.06
350	LNG	CHENIERE ENERGY INC	Oil & Gas	0.06
351	ANET	ARISTA NETWORKS, INC	Technology	0.06
360	WP	WORLDPAY, INC.	Industrials	0.05
365	QRTEA	LIBERTY INT QVC SR A	Consumer Services	0.05
367	NLY	ANNALY CAPITAL MANAG	Financials	0.05

RANK	SYMBOL	COMPANY NAME	ICB SECTOR	NQ WEIGHT
369	ALLY	ALLY FINANCIAL	Financials	0.05
370	MSCI	MSCI INC	Financials	0.05
371	IAC	IAC/INTERACTIVE	Technology	0.05
375	WDAY	WORKDAY, INC.	Technology	0.05
380	BR	BROADRIDGE FIN SOL	Industrials	0.05
389	BMRN	BIOMARIN PHARMACEUT	Health Care	0.05
394	ABMD	ABIOMED INC	Health Care	0.05
398	ODFL	OLD DOMINION FREIG	Industrials	0.05
403	NVR	N V R L P	Consumer Goods	0.05
404	CDW	CDW CORPORATION	Technology	0.05
409	FANG	DIAMONDBACK ENERGY	Oil & Gas	0.05
411	CPRT	COPART, INC.	Consumer Services	0.05
413	TRGP	TARGA RESOURCES CP	Oil & Gas	0.05
418	SQ	SQUARE, INC.	Technology	0.04
426	STLD	STEEL DYNAMICS INC	Basic Materials	0.04
428	INGR	INGREDION INC	Consumer Goods	0.04
429	SIRI	SIRIUS XM HOLDINGS I	Consumer Services	0.04
430	TFX	TELEFLEX INC	Health Care	0.04
432	RGA	REINSURANCE GROUP	Financials	0.04
434	MRVL	MARVELL TECH GROUP	Technology	0.04
435	ON	ON SEMICONDUCTOR	Technology	0.04
439	SPR	SPIRIT AEROSYSTEMS H	Industrials	0.04
443	BG	BUNGE LTD	Consumer Goods	0.04
444	TRU	TRANSUNION	Industrials	0.04
447	VMW	VMWARE, INC.	Technology	0.04
454	FNF	FNF GROUP	Financials	0.04
458	CGNX	COGNEX CP	Industrials	0.04
459	ALNY	ALNYLAM PHARMACEUT	Health Care	0.04
460	LDOS	LEIDOS HLDGS, INC.	Technology	0.04
464	OC	OWENS CORNING	Industrials	0.04
465	Y	ALLEGHANY CP	Financials	0.04
466	SEIC	SEI INVESTMENTS CO	Financials	0.04
468	XPO	XPO LOGISTICS, INC.	Industrials	0.04
469	SSNC	SS&C TECHNOLOGIES	Technology	0.04
471	IEX	IDEX CP	Industrials	0.04
474	ARMK	ARAMARK	Consumer Services	0.04
476	AFG	AMER FIN GRP HLD	Financials	0.04
482	TRMB	TRIMBLE INC.	Industrials	0.03

RANK	SYMBOL	COMPANY NAME	ICB SECTOR	NQ WEIGHT
485	ACGL	ARCH CAPITAL GRP LTD	Financials	0.03
486	INVH	INVITATION HOMES INC	Financials	0.03
493	CLR	CONTINENTAL RESRCES	Oil & Gas	0.03
494	ROL	ROLLINS INC	Consumer Services	0.03
496	FWONK	LIBERTY FMLA ONE C	Consumer Services	0.03
498	WLK	WESTLAKE CHEMICAL CO	Basic Materials	0.02
499	BLUE	BLUEBIRD BIO CMN	Health Care	0.02
500	CZR	CAESARS ENTERTNMT	Consumer Services	0.01

Table 4: Stocks Missing from Nasdaq US 500 Large Cap

ICB SECTOR	SP WEIGHT	COUNT
Consumer Services	1.00	23
Financials	0.67	15
Industrials	0.51	12
Technology	0.21	6
Utilities	0.21	6
Oil & Gas	0.13	4
Basic Materials	0.45	3
Health Care	0.31	3
Consumer Goods	0.10	1
Total	3.58	73

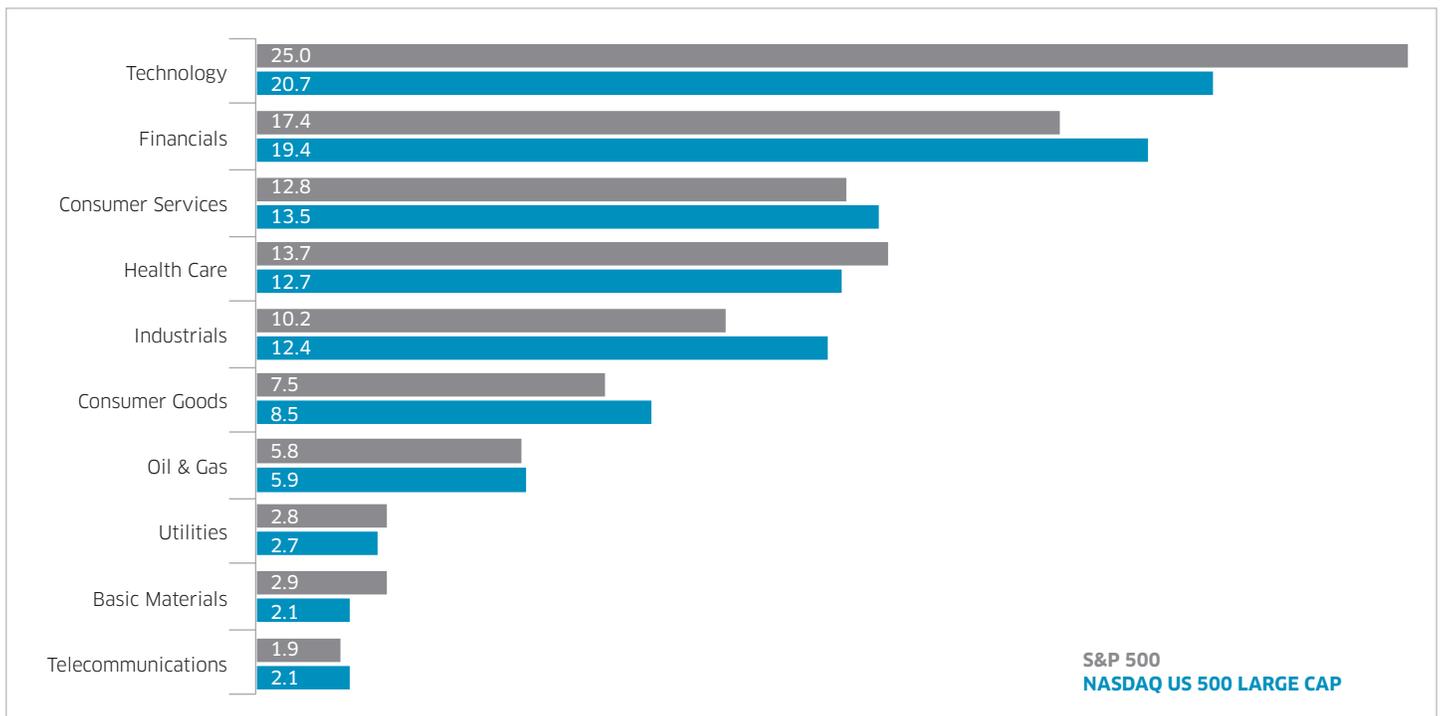
Table 5: Detailed List of Stocks Missing from Nasdaq US 500 Large Cap

RANK	TICKER	COMPANY NAME	SECTOR	SP WEIGHT	REASON FOR EXCLUSION
69	TWX	TIME WARNER INC	Consumer Services	0.33	M&A
98	AET	AETNA INC	Health Care	0.25	M&A
102	MON	MONSANTO	Basic Materials	0.23	M&A
127	PX	PRAXAIR INC	Basic Materials	0.19	M&A
163	AON	AON PLC CLASS A	Financials	0.15	No country designation
224	COL	ROCKWELL COLLINS INC	Industrials	0.10	M&A
231	APTV	APTIV PLC	Consumer Services	0.10	No country designation
239	DPS	DR PEPPER SNAPPLE GROUP INC	Consumer Goods	0.10	M&A
251	WLTW	WILLIS TOWERS WATSON PLC	Financials	0.09	No country designation
277	INFO	IHS MARKIT LTD	Industrials	0.08	No country designation
327	XL	XL GROUP LTD	Financials	0.06	M&A
353	FTI	TECHNIPFMC PLC	Oil & Gas	0.06	No country designation
383	PNR	PENTAIR	Industrials	0.05	No country designation
403	NLSN	NIELSEN HOLDINGS PLC	Industrials	0.05	No country designation
411	RE	EVEREST RE GROUP LTD	Financials	0.05	No country designation
424	KORS	MICHAEL KORS HOLDINGS LTD	Consumer Services	0.04	No country designation

RANK	TICKER	COMPANY NAME	SECTOR	SP WEIGHT	REASON FOR EXCLUSION
426	DRE	DUKE REALTY REIT CORP	Financials	0.04	Lower Rank on MV
427	LNT	ALLIANT ENERGY CORP	Utilities	0.04	Lower Rank on MV
429	QRVO	QUORVO INC	Technology	0.04	Lower Rank on MV
431	NRG	NRG ENERGY INC	Utilities	0.04	Lower Rank on MV
435	WU	WESTERN UNION	Technology	0.04	Lower Rank on MV
438	FFIV	F5 NETWORKS INC	Technology	0.04	Lower Rank on MV
442	PNW	PINNACLE WEST CORP	Utilities	0.04	Lower Rank on MV
443	IPG	INTERPUBLIC GROUP OF COMPANIES INC	Consumer Services	0.04	Lower Rank on MV
446	SLG	SL GREEN REALTY REIT CORP	Financials	0.04	Lower Rank on MV
451	PKI	PERKINELMER INC	Health Care	0.04	Lower Rank on MV
452	FRT	FEDERAL REALTY INVESTMENT TRUST RE	Financials	0.04	Lower Rank on MV
454	M	MACYS INC	Consumer Services	0.04	Lower Rank on MV
456	AAP	ADVANCE AUTO PARTS INC	Consumer Services	0.04	Lower Rank on MV
457	ALLE	ALLEGION PLC	Industrials	0.04	Lower Rank on MV
458	CMG	CHIPOTLE MEXICAN GRILL INC	Consumer Services	0.04	Lower Rank on MV
459	NI	NISOURCE INC	Utilities	0.04	Lower Rank on MV
460	ALK	ALASKA AIR GROUP INC	Industrials	0.04	Lower Rank on MV
461	FLR	FLUOR CORP	Industrials	0.03	Lower Rank on MV
462	PHM	PULTEGROUP INC	Consumer Services	0.03	Lower Rank on MV
463	TSCO	TRACTOR SUPPLY	Consumer Services	0.03	Lower Rank on MV
464	HP	HELMERICH & PAYNE INC	Oil & Gas	0.03	Lower Rank on MV
465	LUK	LEUCADIA NATIONAL CORP	Financials	0.03	Lower Rank on MV
466	RHI	ROBERT HALF	Industrials	0.03	Lower Rank on MV
467	AES	AES CORP	Utilities	0.03	Lower Rank on MV
468	SEE	SEALED AIR CORP	Basic Materials	0.03	Lower Rank on MV
469	HOG	HARLEY DAVIDSON INC	Consumer Services	0.03	Lower Rank on MV
470	CSRA	CSRA INC	Technology	0.03	Lower Rank on MV
473	FLIR	FLIR SYSTEMS INC	Technology	0.03	Lower Rank on MV
474	HBI	HANESBRANDS INC	Consumer Services	0.03	Lower Rank on MV
475	PBCT	PEOPLES UNITED FINANCIAL INC	Financials	0.03	Lower Rank on MV
477	XRX	XEROX CORP	Technology	0.03	Lower Rank on MV
478	GT	GOODYEAR TIRE & RUBBER	Consumer Services	0.03	Lower Rank on MV
479	MAC	MACERICH REIT	Financials	0.03	Lower Rank on MV
480	AIV	APARTMENT INVESTMENT AND MANAGEMENT	Financials	0.03	Lower Rank on MV
482	DISCK	DISCOVERY COMMUNICATIONS INC SERIE	Consumer Services	0.03	Lower Rank on MV
483	KIM	KIMCO REALTY REIT CORP	Financials	0.03	Lower Rank on MV
484	RL	RALPH LAUREN CORP CLASS A	Consumer Services	0.03	Lower Rank on MV
485	LEG	LEGGETT & PLATT INC	Consumer Services	0.03	Lower Rank on MV

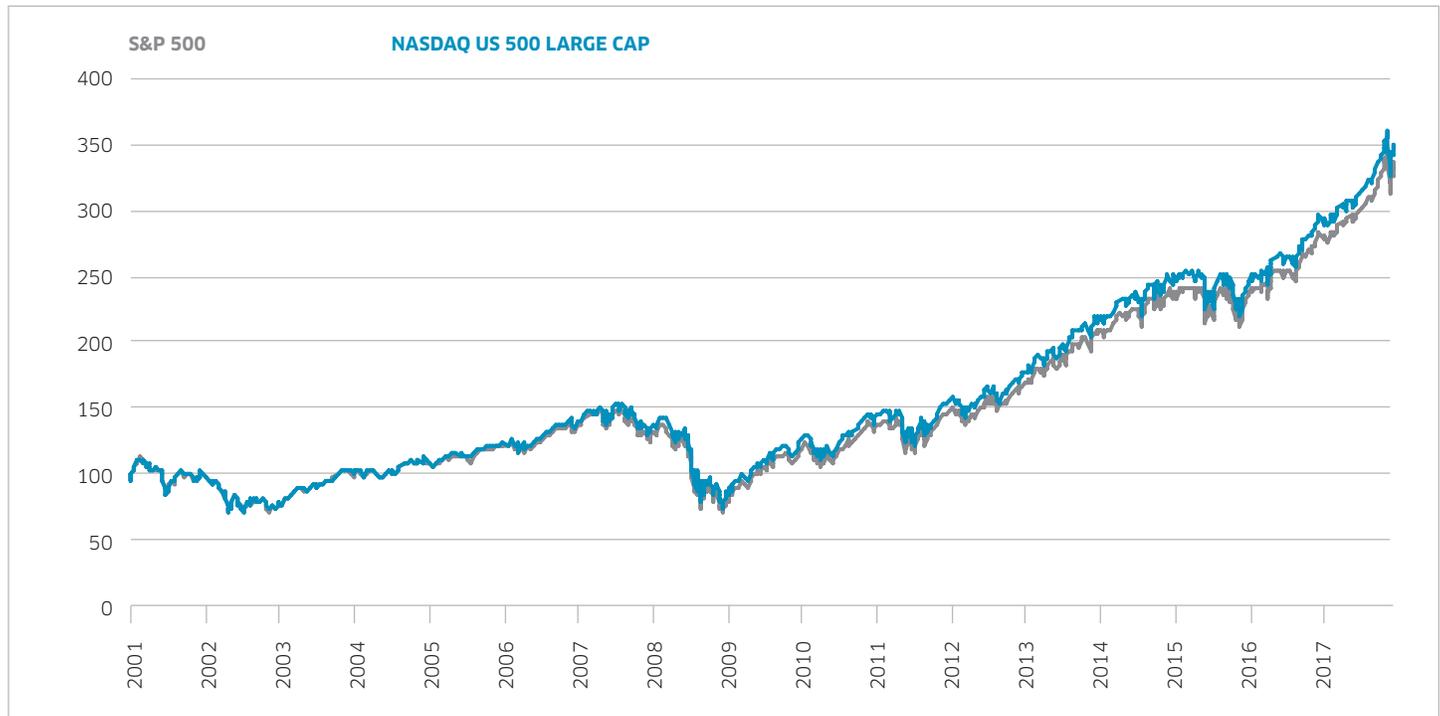
RANK	TICKER	COMPANY NAME	SECTOR	SP WEIGHT	REASON FOR EXCLUSION
486	AYI	ACUITY BRANDS INC	Industrials	0.03	Lower Rank on MV
487	FLS	FLOWERVE CORP	Industrials	0.02	Lower Rank on MV
488	JWN	NORDSTROM INC	Consumer Services	0.02	Lower Rank on MV
489	FL	FOOT LOCKER INC	Consumer Services	0.02	Lower Rank on MV
490	HRB	H&R BLOCK INC	Consumer Services	0.02	Lower Rank on MV
491	SCG	SCANA CORP	Utilities	0.02	Lower Rank on MV
492	SRCL	STERICYCLE INC	Industrials	0.02	Lower Rank on MV
493	BHF	BRIGHTHOUSE FINANCIAL INC	Financials	0.02	Lower Rank on MV
494	PWR	QUANTA SERVICES INC	Industrials	0.02	Lower Rank on MV
495	NFX	NEWFIELD EXPLORATION	Oil & Gas	0.02	Lower Rank on MV
496	EVHC	ENVISION HEALTHCARE CORP	Health Care	0.02	Lower Rank on MV
497	AIZ	ASSURANT INC	Financials	0.02	Lower Rank on MV
498	MAT	MATTEL INC	Consumer Services	0.02	Lower Rank on MV
499	TRIP	TRIPADVISOR INC	Consumer Services	0.02	Lower Rank on MV
500	RRC	RANGE RESOURCES CORP	Oil & Gas	0.01	Lower Rank on MV
501	NAVI	NAVIENT CORP	Financials	0.01	Lower Rank on MV
502	DISCA	DISCOVERY COMMUNICATIONS INC SERIE	Consumer Services	0.01	Lower Rank on MV
503	UAA	UNDER ARMOUR INC CLASS A	Consumer Services	0.01	Lower Rank on MV
504	UA	UNDER ARMOUR INC CLASS C	Consumer Services	0.01	Lower Rank on MV

Chart 1: Portfolio ICB Industry Breakdown as of March 16, 2018 (Date of Semi-Annual Review)



Source: Nasdaq, Bloomberg

Chart 2: Nasdaq US 500 Large Cap and S&P500 are Closely Tracked



Source: Nasdaq, Bloomberg

Table 6: Index Historical Performance As Of December 29, 2017

YEAR	FROM	TO	NASDAQ US 500 LARGE CAP	S&P 500	NASDAQ US 500 LARGE CAP	S&P 500
			TOTAL RETURN		VOLATILITY*	
2001	3/30/2001	12/31/2001	0.39%	-0.03%	21.0%	20.5%
2002	12/31/2001	12/31/2002	-22.12%	-22.10%	26.0%	26.0%
2003	12/31/2002	12/31/2003	28.81%	28.68%	16.7%	17.1%
2004	12/31/2003	12/31/2004	10.83%	10.88%	11.0%	11.1%
2005	12/31/2004	12/30/2005	6.43%	4.91%	10.2%	10.3%
2006	12/30/2005	12/29/2006	15.62%	15.79%	10.1%	10.0%
2007	12/29/2006	12/31/2007	7.37%	5.49%	15.6%	16.0%
2008	12/31/2007	12/31/2008	-35.82%	-37.00%	40.2%	41.0%
2009	12/31/2008	12/31/2009	25.81%	26.46%	26.5%	27.3%
2010	12/31/2009	12/31/2010	15.33%	15.06%	17.9%	18.1%
2011	12/31/2010	12/30/2011	2.06%	2.11%	23.1%	23.3%
2012	12/30/2011	12/31/2012	15.92%	16.00%	12.7%	12.7%
2013	12/31/2012	12/31/2013	32.17%	32.39%	10.9%	10.9%
2014	12/31/2013	12/31/2014	13.53%	13.69%	11.2%	11.2%
2015	12/31/2014	12/31/2015	1.09%	1.38%	15.2%	15.2%
2016	12/31/2015	12/30/2016	11.80%	11.96%	13.1%	13.1%
2017	12/30/2016	12/29/2017	21.99%	21.83%	6.7%	6.7%

YEAR	FROM	TO	NASDAQ US 500 LARGE CAP	S&P 500	NASDAQ US 500 LARGE CAP	S&P 500
			TOTAL RETURN		VOLATILITY*	
YTD	12/29/2017	2/27/2018	2.95%	2.96%	19.8%	20.0%
1Y	2/28/2017	2/27/2018	18.46%	18.46%	9.9%	10.0%
3Y*	2/27/2015	2/27/2018	11.36%	11.54%	12.7%	12.7%
5Y*	2/28/2013	2/27/2018	14.88%	14.99%	12.1%	12.1%
7Y*	2/28/2011	2/27/2018	13.20%	13.30%	14.2%	14.3%
10Y*	2/29/2008	2/27/2018	9.92%	9.85%	20.0%	20.3%

Source: Nasdaq, Bloomberg

*Figures are annualized.

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