

ABOUT CRSP



As an affiliate of The University of Chicago Booth School of Business, the Center for Research in Security Prices LLC (CRSP) has been driving financial innovation since its founding in 1960.

For over 60 years, CRSP has been the premier provider of the world's first and most comprehensive resource for historical security prices and returns information, offering scholars and market participants data of the highest integrity and transparency to ensure the strongest foundation for economic forecasting, stock market research and financial analysis conducted by academic organizations, investment banks, brokerage firms, corporations and government agencies.

CRSP data has led to the transformation of the world of finance, illuminating the benefits of investments in equities, providing understanding of factors such as value, size and momentum, exploring the benefits of passive investing vs. active management, and contributing to the ongoing improvement of investor outcomes and the development of the modern financial ecosystem and investment industry.

Today, more than 600 leading academic institutions in 35 countries rely on CRSP data for academic research and to support classroom instructions.

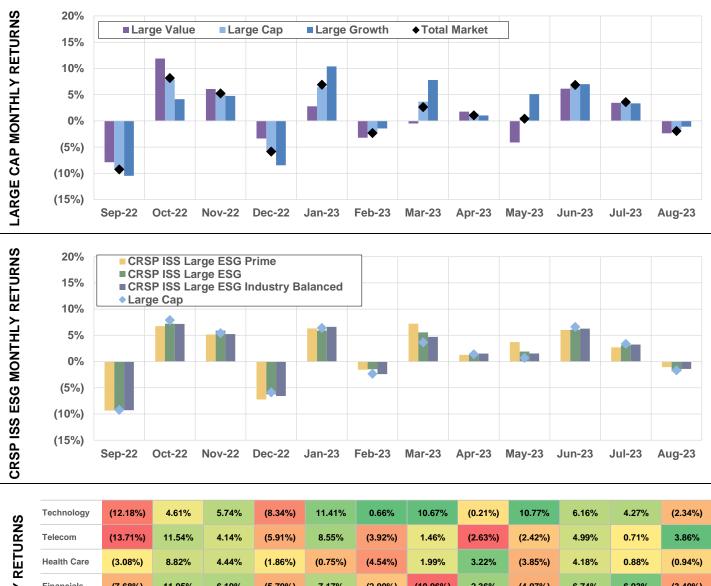
CRSP. RESEARCH PRODUCTS

CRSP® MARKET INDEXES

CRSP has been producing indexes since 1966, helping academics and practitioners understand and research the trends in the financial markets. Drawing on this expertise, in 2011 CRSP designed and launched the CRSP Market Indexes (CRSPMI) product line to provide a comprehensive suite of efficient, transparent and representative benchmarks covering the entire U.S. equity marketplace.

The CRSPMI products are anchored by the flagship CRSP Total Market Index (CRSPTM1), which provides investors with a consistently holistic and representative benchmark for the entire qualifying U.S. equity market. Building from this, the CRSPMI suite further expands to offer investors a wide selection of market capitalization indexes (Micro, Small, Mid, Large, Mega) supplemented with a broad offering of Value and Growth styles, Sectors, and ESG benchmarks.

U.S. MARKET FOR THE PAST 12 MONTHS



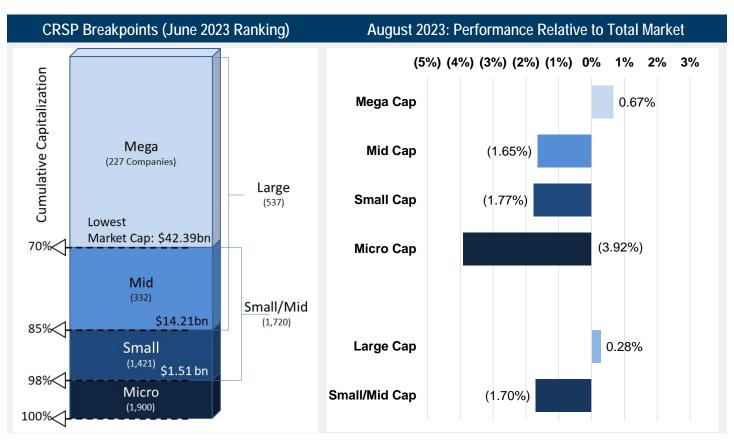
	T	(40.400()	4.040/	= - 40/	(0.040()	44 440/	0.000/	40.070/	(0.040()	40 ====	0.400/	4.070/	(0.0.40()
S	Technology	(12.18%)	4.61%	5.74%	(8.34%)	11.41%	0.66%	10.67%	(0.21%)	10.77%	6.16%	4.27%	(2.34%)
JRNS	Telecom	(13.71%)	11.54%	4.14%	(5.91%)	8.55%	(3.92%)	1.46%	(2.63%)	(2.42%)	4.99%	0.71%	3.86%
RETU	Health Care	(3.08%)	8.82%	4.44%	(1.86%)	(0.75%)	(4.54%)	1.99%	3.22%	(3.85%)	4.18%	0.88%	(0.94%)
>	Financials	(7.68%)	11.95%	6.19%	(5.70%)	7.17%	(2.00%)	(10.06%)	2.36%	(4.07%)	6.74%	6.93%	(3.40%)
Ę	Real Estate	(12.62%)	3.82%	6.06%	(5.10%)	10.22%	(6.00%)	(2.12%)	0.52%	(3.82%)	5.74%	2.07%	(3.31%)
MONTHL	Consumer Discretionary	(8.48%)	3.58%	2.19%	(10.46%)	14.87%	(2.60%)	2.25%	(0.72%)	0.85%	10.55%	2.98%	(2.55%)
S	Consumer Staples	(8.17%)	9.73%	5.62%	(2.16%)	(1.97%)	(2.38%)	3.35%	3.84%	(5.82%)	3.39%	2.13%	(3.84%)
INDEXE	Industrials	(10.56%)	12.67%	6.65%	(3.97%)	6.43%	(1.74%)	0.05%	(0.50%)	(2.87%)	10.35%	3.09%	(1.52%)
_	Basic Materials	(9.94%)	10.25%	10.79%	(5.36%)	11.41%	(2.64%)	(1.64%)	(1.42%)	(7.34%)	10.89%	3.94%	(3.53%)
SECTOR	Energy	(9.43%)	23.07%	1.57%	(4.47%)	2.87%	(6.79%)	(0.85%)	1.60%	(8.93%)	7.22%	7.94%	1.33%
SEC	Utilities	(10.42%)	2.33%	7.06%	(1.64%)	(1.36%)	(5.14%)	4.64%	1.69%	(5.22%)	2.16%	1.63%	(5.97%)
		Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23

Note: Data as of 8/31/2023; monthly total returns are used; CRSP US Sector Indexes monthly total returns are for constrained indexes, meaning that securities' weights within sector indexes are adjusted to comply with IRS Regulated Investment Company rules; CRSP U.S. Sector Indexes based on Enhanced FTSE ICB® (EICB) methodology are used for returns after 6/7/2020; CRSP U.S. Sector Indexes based on FTSE ICB® methodology are used for returns prior to 6/5/2020. After 9/5/2023, CRSP U.S. Sector Indexes use ICE's Uniform Entity Sectors classification system. Prior to 9/7/2021 the CRSP ISS ESG Indexes return series is based on a backtest

CRSP U.S. CAP AND STYLE INDEXES PERFORMANCE

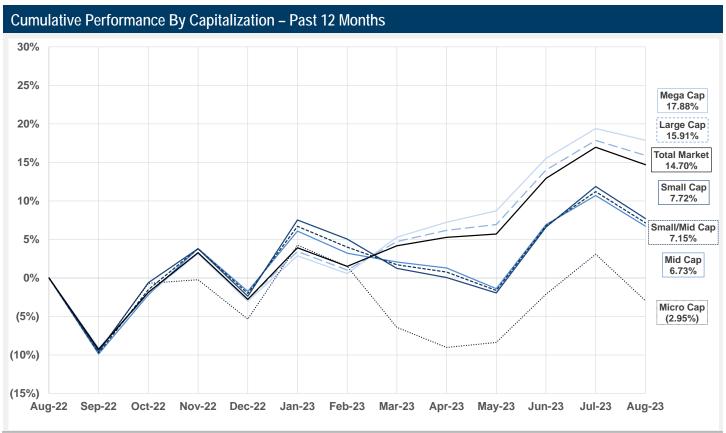
CRSF	CRSP U.S. Cap and Style Indexes Performance										
		Index		Float-Adjusted				Return for			
Category	Index Name	Ticker	Count	Market Cap (\$M)	1 Month	3 Months	YTD	1 Year	3 Years	5 Years	10 Years
Total Market	CRSP U.S. Total Market	CRSPTMT	3,768	\$43,808,461	(1.94%)	8.51%	17.99%	14.70%	9.72%	10.18%	12.19%
	CRSP U.S. Mega Cap	CRSPMET	227	\$32,201,673	(1.27%)	8.42%	21.55%	17.88%	10.05%	11.68%	13.20%
	CRSP U.S. Mid Cap	CRSPMIT	332	\$6,315,302	(3.59%)	8.23%	8.61%	6.73%	8.46%	7.48%	10.11%
	CRSP U.S. Small Cap	CRSPSCT	1,421	\$4,759,535	(3.71%)	9.85%	10.34%	7.72%	9.77%	5.46%	9.19%
Сар	CRSP U.S. Micro Cap	CRSPMCT	1,900	\$531,951	(5.86%)	5.92%	2.53%	(2.95%)	4.58%	0.72%	7.22%
	CRSP U.S. Large Cap	CRSPLCT	537	\$38,516,975	(1.66%)	8.39%	19.24%	15.91%	9.76%	10.98%	12.68%
	CRSP U.S. Small Mid Cap	CRSPSMT	1,720	\$11,074,837	(3.64%)	8.92%	9.35%	7.15%	9.06%	6.56%	-
	CRSP U.S. Mega Value	CRSPMEVT	145	\$13,842,960	(2.11%)	6.93%	3.60%	10.59%	12.87%	8.54%	10.67%
	CRSP U.S. Mid Value	CRSPMIVT	188	\$3,228,538	(3.86%)	8.52%	3.18%	4.23%	12.42%	6.29%	9.38%
Value	CRSP U.S. Small Value	CRSPSCVT	838	\$2,710,804	(3.37%)	11.59%	7.27%	7.80%	15.78%	5.59%	9.25%
	CRSP U.S. Large Value	CRSPLCVT	337	\$17,107,591	(2.37%)	7.19%	3.55%	9.39%	12.87%	8.15%	10.47%
	CRSP U.S. Small Mid Value	CRSPSMVT	1038	\$6,093,117	(3.51%)	9.77%	4.81%	5.41%	14.05%	5.91%	-
	CRSP U.S. Mega Growth	CRSPMEGT	92	\$16,830,300	(0.67%)	9.52%	40.61%	24.48%	7.81%	14.42%	15.71%
	CRSP U.S. Mid Growth	CRSPMIGT	157	\$3,086,764	(3.30%)	7.95%	14.87%	9.47%	4.62%	8.30%	10.65%
Growth	CRSP U.S. Small Growth	CRSPSCGT	647	\$2,048,731	(4.15%)	7.62%	14.76%	7.56%	2.15%	4.43%	8.65%
	CRSP U.S. Large Growth	CRSPLCGT	229	\$21.409.384	(1.09%)	9.37%	36.20%	21.76%	7.20%	13.42%	14.82%
	CRSP U.S. Small Mid Growth	CRSPSMGT	760	\$4,981,720	(3.80%)	7.90%	15.44%	9.40%	3.73%	6.76%	-

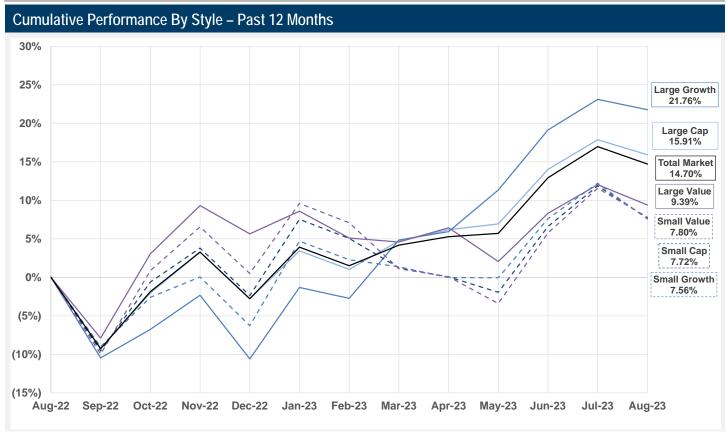
Note: Data as of 8/31/2023; returns computation is based on total returns; data for 1-, 3-, 5-, and 10-years is annualized; counts may not add up due to banding and migration, see appendix; CRSP U.S. Mega Growth securities' weights within sector indexes are adjusted to comply with IRS Regulated Investment Company rules.



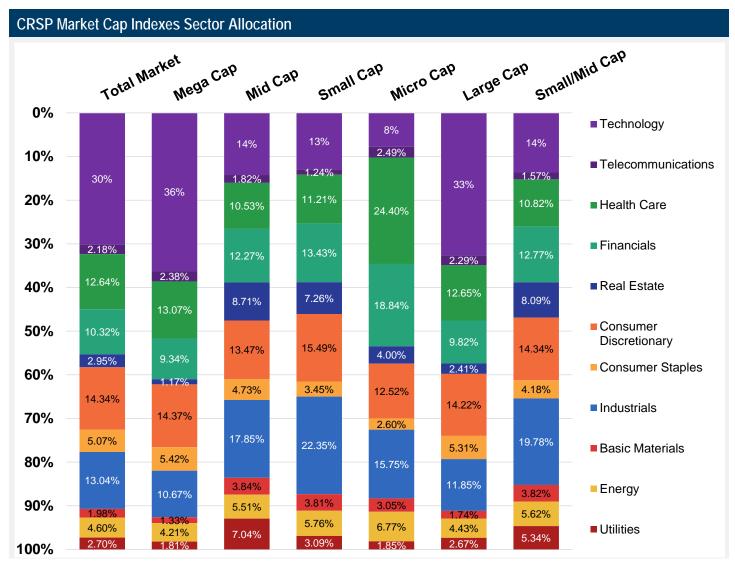
Note: Data for lowest market capitalization is based on 5/25/2023 random price date; company counts as of 8/31/2023; counts may not add up due to banding and migration, see appendix

Note: Data as of 8/31/2023; returns computation is based on total returns





Note: Data as of 8/31/2023; returns computation is based on total returns



Note: Data as of 8/31/2023; Sector weights are computed using company's assignment to the industry as defined by Enhanced FTSE ICB®; sector weights are based on float-adjusted market cap weights

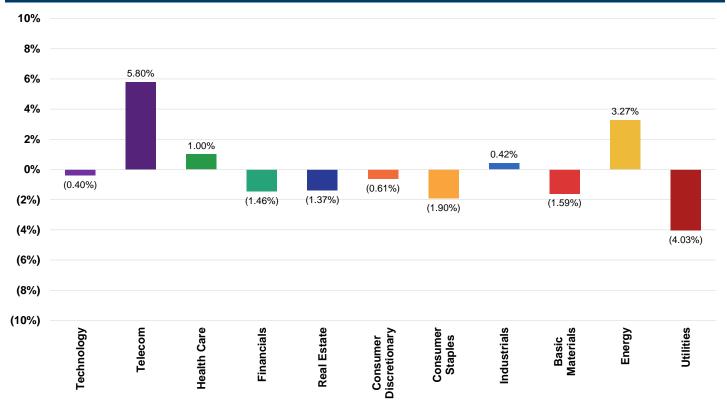
CRSP U.S. SECTOR INDEXES PERFORMANCE

CRSF	U.S. Sector Indexes Per	formance	;								
		Index		Float-Adjusted				Return for			
Category	Index Name	Ticker	Count	Market Cap (\$M)	1 Month	3 Months	YTD	1 Year	3 Years	5 Years	10 Years
Total Market	CRSP U.S. Total Market	CRSPTMT	3,768	\$43,808,461	(1.94%)	8.51%	17.99%	14.70%	9.72%	10.18%	12.19%
	CRSP U.S. Technology	CRSPITT	426	\$1,314,577	(2.34%)	8.10%	48.30%	32.05%	12.29%	18.46%	20.35%
	CRSP U.S. Technology Unconstrained			\$13,220,748							
	CRSP U.S. Telecommunications	CRSPTET	80	\$79,176	3.86%	9.82%	10.41%	4.13%	0.34%	3.08%	5.39%
	CRSP U.S. Telecommunication Unconstraine	d		\$955,097							
	CRSP U.S. Health Care	CRSPHCT	823	\$5,535,675	(0.94%)	4.11%	(0.16%)	7.93%	6.31%	7.78%	11.98%
	CRSP U.S. Health Care Unconstrained			\$5,535,675							
	CRSP U.S. Financials	CRSPFNT	586	\$4,520,535	(3.40%)	10.26%	2.27%	5.83%	13.18%	7.36%	10.70%
	CRSP U.S. Financials Unconstrained			\$4,520,535							
	CRSP U.S. Real Estate	CRSPRET	198	\$1,293,812	(3.31%)	4.35%	2.31%	(6.59%)	3.81%	3.88%	7.51%
	CRSP U.S. Real Estate Unconstrained			\$1,293,812							
Sector	CRSP U.S. Consumer Discretionary	CRSPCDT	562	\$6,282,090	(2.55%)	10.94%	27.08%	10.23%	3.30%	8.23%	12.27%
Indexes	CRSP U.S. Consumer Discretionary Unconstr			\$6,282,090							
	CRSP U.S. Consumer Staples	CRSPCST	146	\$2,221,458	(3.84%)	1.54%	(1.80%)	2.25%	7.69%	8.97%	9.06%
	CRSP U.S. Consumer Staples Unconstrained CRSP U.S. Industrials			\$2,221,458	(4.500()	40.000/	40.000/	40.000/	0.000/	0.000/	44 500/
	CRSP U.S. Industrials CRSP U.S. Industrials Unconstrained	CRSPIDT	561	\$5,710,825 \$5,740,825	(1.52%)	12.03%	13.28%	16.90%	9.39%	8.66%	11.52%
	CRSP U.S. Industrials Unconstrained CRSP U.S. Basic Materials	CRSPMTT	117	\$5,710,825	(2 520/)	11.19%	8.36%	12.82%	13.56%	8.21%	8.94%
	CRSP U.S. Basic Materials CRSP U.S. Basic Materials Unconstrained	CROPINITI	117	\$869,244 \$869,244	(3.53%)	11.19%	0.36%	12.82%	13.56%	0.21%	6.94%
	CRSP U.S. Energy	CRSPENT	182	\$201.595	1.33%	17.28%	3.18%	11.59%	41.12%	7.73%	3.91%
	CRSP U.S. Energy Unconstrained	OIXOI EIVI	102	\$2,014,671	1.5576	11.2076	3.1076	11.5576	71.12/0	1.1376	3.3176
	CRSP U.S. Utilities	CRSPUTT	87	\$1,184,305	(5.97%)	(2.37%)	(7.87%)	(11.06%)	6.02%	6.86%	9.31%
			•	Ţ.,.O.,000	(2.3.70)	(=:51 /0)	()	()	-10=70	2,00,0	3.0.70

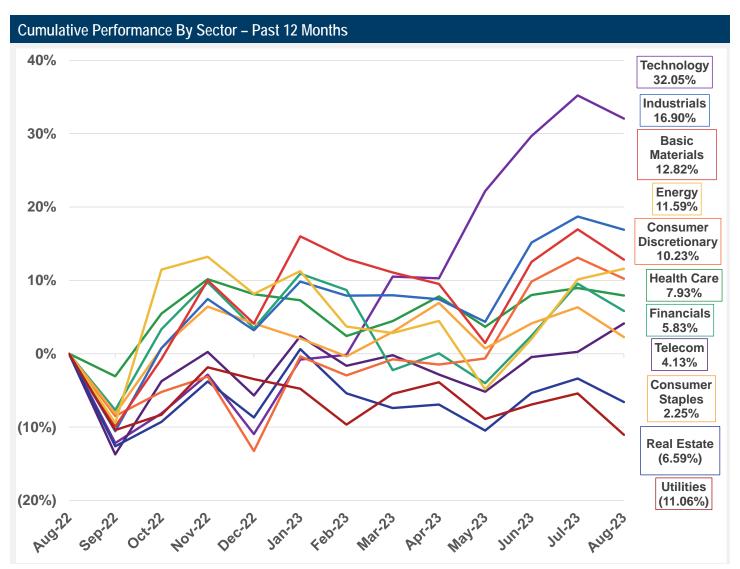
\$1.184.305

August 2023: Sector Performance Relative to Total Market

CRSP U.S. Utilities Unconstrained



Note: Data as of 8/31/2023; returns computation is based on total returns; data for 1-, 3-, 5-, and 10-years is annualized. CRSP US Sector Indexes total returns are for constrained indexes, meaning that securities' weights within sector indexes are adjusted to comply with IRS Regulated Investment Company rules. Unconstrained Sector indexes are not constrained to comply with IRS RIC rules. CRSP U.S. Sector Indexes based on Enhanced FTSE ICB® (EICB) methodology are used for returns after 6/7/2020; CRSP U.S. Sector Indexes based on FTSE ICB® methodology are used for returns prior to 6/5/2020. After 9/5/2023, CRSP U.S. Sector Indexes use ICE's Uniform Entity Sectors classification system.



Note: Data as of 8/31/2023; returns computation is based on total returns; CRSP US Sector Indexes total returns are for constrained indexes, meaning that securities' weights within sector indexes are adjusted to comply with IRS Regulated Investment Company rules. CRSP U.S. Sector Indexes based on Enhanced FTSE ICB® (EICB) methodology are used for returns after 6/7/2020; CRSP U.S. Sector Indexes based on FTSE ICB® methodology are used for returns prior to 6/5/2020. After 9/5/2023, CRSP U.S. Sector Indexes use ICE's Uniform Entity Sectors classification system.

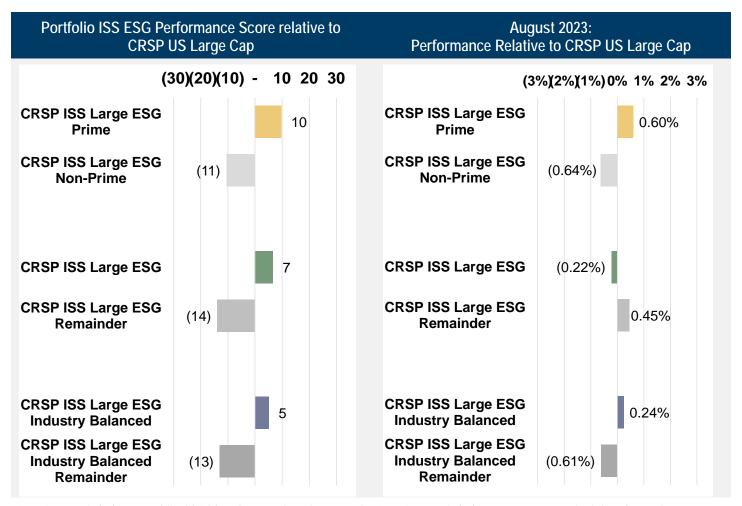
CRSP ISS U.S. LARGE CAP ESG INDEXES PERFORMANCE

To learn more about CRSP ISS ESG Indexes Suite visit our webpage: https://www.crsp.org/crsp-iss-esg-indexes

CRSP	CRSP ISS U.S. Large Cap ESG Indexes Performance									
Category	Index Name	Index Ticker	Count	Float-Adjusted Market Cap (\$M)	1 Month	3 Months	YTD	Return for 1 Year	3 Years	5 Years
	CRSP U.S. Large Cap	CRSPLCT	537	\$38,516,975	(1.66%)	8.39%	19.24%	15.91%	9.76%	10.98%
Prime	CRSP ISS Large ESG Prime CRSP ISS Large ESG Non-Prime	CLESGPT CLESGNPT	162 375	\$19,964,215 \$18,552,760	(1.06%) (2.30%)	7.73% 9.09%	27.02% 12.26%	19.89% 12.00%	11.59% 8.01%	16.17% 7.86%
ESG	CRSP ISS Large ESG CRSP ISS Large ESG Remainder	CLESGT CLESGRT	270 267	\$26,067,003 \$12,449,972	(1.88%) (1.21%)	7.31% 10.72%	22.31% 13.29%	18.17% 11.43%	10.08% 9.20%	11.98% 8.65%
ESG Industry	CRSP ISS Large ESG Industry Balanced	CLESGBT	272	\$27,565,453	(1.42%)	8.18%	21.50%	16.13%	9.43%	11.21%
Balanced	CRSP ISS Large ESG Industry Balanced Remainder	CLESGBRT	265	\$10,951,523	(2.27%)	8.95%	13.77%	15.74%	10.98%	10.44%

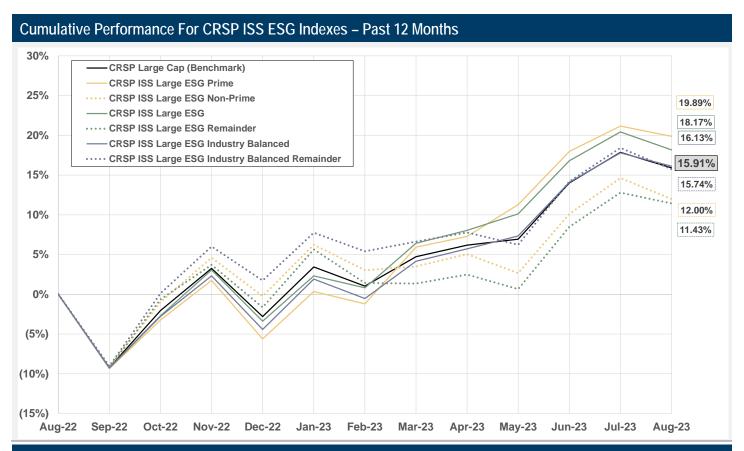
Note: Data as of 8/31/2023; returns computation is based on total returns; data for 1-, 3-, and 5-years is annualized; Prior to 9/7/2021 the CRSP ISS ESG Indexes return series is based on a backtest

For definitions of ISS Prime Indicator, ISS ESG Performance Score see Appendix. For more information on ISS ESG Methodology please visit https://www.issgovernance.com/esg/ratings/.

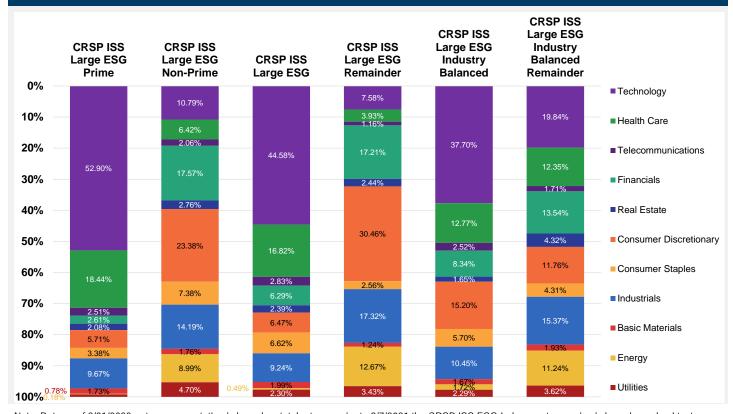


Note: Data as of 8/31/2023. Portfolio ISS ESG Performance Score is computed by weighting securities' ISS ESG Performance Score by the corresponding weight in the index

Note: Data as of 8/31/2023; returns computation is based on total returns



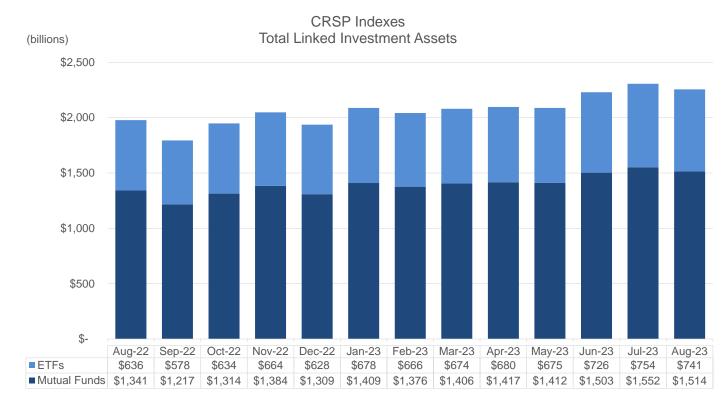
CRSP ISS ESG Indexes Sector Allocation



Note: Data as of 8/31/2023; returns computation is based on total returns; prior to 9/7/2021 the CRSP ISS ESG Indexes return series is based on a backtest Sector weights are computed using company's assignment to the industry as defined by Enhanced FTSE ICB®; sector weights are based on float-adjusted market cap weights

CRSP U.S. INDEXES LINKED ASSETS

Linked Assets as of 8/3	31/2023					
				Linked	Assets (\$B) as of	8/31/23
Index	Index Name (TR - Total Return, PR - Price Only Return)	Index Identifier	NASDAQ GIDS Post Date	ETF	Mutual Fund	Total
Total Market	CRSP US Total Market Index (TR)	CRSPTMT	12/31/2012	\$318.58		\$1,448.03
TOTAL MALKET	CRSP US Total Market Index (PR)	CRSPTM1	1/18/2011		\$1,129.45	\$1,446.03
CRSP Canadian Hedged	CRSP US Total Market Index (CAD-hedged) (TR)	CRSPTCHT	12/31/2012	\$0.59		\$0.59
CKSP Canadian nedged	CRSP US Total Market Index (CAD-hedged) (PR)	CRSPTCH1	12/31/2012			\$0.59
CRSP Canadian Non-Hedged	CRSP US Total Market Total Return Index CAD (TR)	CRSPTMCT	4/15/2013	\$4.80		\$4.80
CRSP Canadian Non-Hedged	CRSP US Total Market Total Return Index CAD (PR)	CRSPTMC1	4/15/2013			\$4.80
Maria Can	CRSP US Mega Cap Index (TR)	CRSPMET	12/31/2012	\$4.25		64.45
Mega Cap	CRSP US Mega Cap Index (PR)	CRSPME1	8/15/2011		\$0.20	\$4.45
Maria Can Crawth	CRSP US Mega Cap Growth Index (TR)	CRSPMEGT	12/31/2012	\$14.36		£4.4.40
Mega Cap Growth	CRSP US Mega Cap Growth Index (PR)	CRSPMEG1	10/1/2012		\$0.03	\$14.40
Mana Can Wales	CRSP US Mega Cap Value Index (TR)	CRSPMEVT	12/31/2012	\$6.07		00.40
Mega Cap Value	CRSP US Mega Cap Value Index (PR)	CRSPMEV1	10/1/2012		\$0.12	\$6.19
	CRSP US Large Cap Index (TR)	CRSPLCT	12/31/2012	\$28.72		040.44
Large Cap	CRSP US Large Cap Index (PR)	CRSPLC1	8/15/2011		\$13.69	\$42.41
O O	CRSP US Large Cap Growth Index (TR)	CRSPLCGT	12/31/2012	\$94.21		\$400 F0
_arge Cap Growth	CRSP US Large Cap Growth Index (PR)	CRSPLCG1	10/1/2012		\$88.32	\$182.53
0 V.I	CRSP US Large Cap Value Index (TR)	CRSPLCVT	12/31/2012	\$101.56		
Large Cap Value	CRSP US Large Cap Value Index (PR)	CRSPLCV1	10/1/2012		\$47.87	\$149.43
	CRSP US Mid Cap Index (TR)	CRSPMIT	12/31/2012	\$54.76		
Mid Cap	CRSP US Mid Cap Index (PR)	CRSPMI1	8/15/2011	•	\$94.29	\$149.06
W10 0 4	CRSP US Mid Cap Growth Index (TR)	CRSPMIGT	12/31/2012	\$10.98		
Mid Cap Growth	CRSP US Mid Cap Growth Index (PR)	CRSPMIG1	10/1/2012	•	\$10.44	\$21.42
	CRSP US Mid Cap Value Index (TR)	CRSPMIVT	12/31/2012	\$15.87		
Mid Cap Value	CRSP US Mid Cap Value Index (PR)	CRSPMIV1	10/1/2012	•	\$11.70	\$27.57
	CRSP US Small Cap Index (TR)	CRSPSCT	12/31/2012	\$46.23		
Small Cap	CRSP US Small Cap Index (PR)	CRSPSC1	8/15/2011	•	\$78.67	\$124.90
	CRSP US Small Cap Growth Index (TR)	CRSPSCGT	12/31/2012	\$14.31		***
Small Cap Growth	CRSP US Small Cap Growth Index (PR)	CRSPSCG1	10/1/2012		\$16.19	\$30.51
	CRSP US Small Cap Value Index (TR)	CRSPSCVT	12/31/2012	\$25.31	<u> </u>	
Small Cap Value	CRSP US Small Cap Value Index (PR)	CRSPSCV1	10/1/2012		\$23.52	\$48.83
		т.	tal Linked Assets	\$741	\$1.514	\$2,255



RECENT NEWS ABOUT CRSP

- Article: How Big Tech Broke Smaller-Company Investing
 - Summary: Impact of changing market on the count-based indexes
 - CRSP Products: <u>CRSP US Stock Databases</u>
 - Publication: WSJ
- Article: Index Providers Disagree on Growth and Value
 - Summary: CRSP Market Indexes (CRSPMI) have been designed under the premise that an index must reflect the way money managers actually invest. We think it is absolutely critical for investors to learn more about our transparent, clear and unbiased methodology that employs an innovative migration process to minimize turnover costs by reading our <u>Key Concepts</u>
 - CRSP Products: CRSP Investment Indexes
 - Publication: Morningstar
- Article: How Index-Tracking Funds Are Trimming Their Trading Costs
 - Summary: The CRSP US Total Market Index represents the most prominent example of an index that
 incorporates some of these new trading provisions. It breaks up its rebalancing trades over five days
 when it rebuilds its portfolio in March, June, September, and December.
 - CRSP Products: CRSP Investment Indexes
 - Publication: Morningstar
- Article: Why Vanguard Total Stock Market Index Is One of the Best
 - Summary: Overview of Vanguard's more than \$1 trillion Total Market fund based on CRSP US Total Market Index
 - CRSP Products: CRSP Investment Indexes
 - Publication: Morningstar
- Article: Passive ETFs hit by billion-dollar rebalancing costs
 - Summary: Impact of rebalancing costs
 - o CRSP Products: CRSP Investment Indexes
 - Publication: Financial Times
- Article: The Mutual Fund that Ate Wall Street Based on An Index Few People Know About
 - Summary: History of the creation of CRSP Investment Indexes
 - o CRSP Products: <u>CRSP Investment Indexes</u>
 - Publication: WSJ

SERVICES OFFERED BY CRSP

CRSP RESEARCH PRODUCTS

Academic, practitioner, and government institutions for whom data quality, accuracy and completeness are essential rely on CRSP data products. Our portfolio of stock, indexes, mutual fund, treasury, and REIT market databases is relied upon by those whose research and publications must withstand rigorous analysis for accuracy. Quantitative analysts in the commercial market depend on CRSP's historical depth and unrivaled quality in order to perform backtesting and modeling calculations. In the government sector, regulators and policy makers value CRSP's complete data sets as the basis for financial and economic research.

- CRSP US Stock Databases
- CRSP 10
- CRSP Historical Indexes
- CRSPMI Intraday
- CRSP/Compustat Merged Database
- CRSP US Treasury Database
- CRSP/Ziman Real Estate Database
- CRSP Survivor-Bias-Free US Mutual Funds
- CRSP Cap-Based Portfolio Index

For more information regarding CRSP Research Products, contact subscriptions@crsp.org.

CRSP MARKET INDEXES (CRSPMI)

Since 2011, CRSP LLC has maintained, disseminated and expanded its' CRSPMI proprietary investable index product line. Currently comprising over 78 capitalization-based, industry sector, value and growth style, and ESG indexes, the CRSPMI suite blends ongoing advancements in academic research with the most efficient and productive industry practices. CRSPMI continues to dedicate resources and personnel to expand its capabilities and services for providing a broad, efficient and low-cost set of performing index products and benchmarks for the entire investment community.

CRSPMI offers indexes covering the entire U.S. equities marketplace, from its flagship CRSP Total Market Index (CRSPTM1) to a broad set of different cap segments (Mega, Large, Mid, Small, Micro) with Value and Growth versions of each, 11 Sector Indexes and 6 ESG Indexes. A <u>quick reference guide</u> provides an overview of the CRSPMI index offerings.

CRSPMI distributes its investable indexes and related constituents, corporate actions and rebalancing information to a broad community of licensed clients over multiple delivery channels, including <u>direct client feed</u>, secure website and approved third-party redistributors.

APPENDIX - CRSP U.S. INDEXES DESCRIPTIVE INFORMATION

			Float-Adjusted	Largest Company	Smallest	Median	Average	Largest Company
Category	Index Name	Count	Market Cap (\$M)	(\$M)	Company (\$M)	Company (\$M)	Company (\$M)	Weight (%)
otal Market	CRSP U.S. Total Market	3,768	\$43,808,461	\$2,807,204	\$1	\$752	\$11,626	6.41%
	CRSP U.S. Mega Cap	227	\$32,201,673	\$2,807,204	\$9,281	\$68,856	\$141,858	8.72%
	CRSP U.S. Mid Cap	332	\$6,315,302	\$52,614	\$1,221	\$17,115	\$19,022	0.83%
	CRSP U.S. Small Cap	1,421	\$4,759,535	\$21,478	\$4	\$2,472	\$3,349	0.45%
Сар	CRSP U.S. Micro Cap	1,900	\$531,951	\$3,541	\$1	\$124	\$280	0.67%
	CRSP U.S. Large Cap	537	\$38,516,975	\$2,807,204	\$1,221	\$29,631	\$71,726	7.29%
	CRSP U.S. Small Mid Cap	1,720	\$11,074,837	\$52,614	\$4	\$3,208	\$6,439	0.48%
	CRSP U.S. Mega Value	145	\$13,842,960	\$658,987	\$9,281	\$59,047	\$95,469	4.76%
	CRSP U.S. Mid Value	188	\$3,228,538	\$49,379	\$1,221	\$15,843	\$17,173	1.53%
Value	CRSP U.S. Small Value	838	\$2,710,804	\$18,590	\$4	\$2,423	\$3,235	0.69%
	CRSP U.S. Large Value	337	\$17,107,591	\$658,987	\$1,221	\$26,368	\$50,764	3.85%
	CRSP U.S. Small Mid Value	1,038	\$6,093,117	\$49,379	\$4	\$3,004	\$5,870	0.81%
	CRSP U.S. Mega Growth	92	\$16,830,300	\$2,576,745	\$9,434	\$64,455	\$182,938	15.31%
	CRSP U.S. Mid Growth	157	\$3,086,764	\$52,614	\$1,642	\$17,152	\$19,661	1.70%
Growth	CRSP U.S. Small Growth	647	\$2,048,731	\$21,478	\$19	\$2,209	\$3,167	1.05%
	CRSP U.S. Large Growth	229	\$21,409,384	\$2,807,204	\$1,642	\$30,347	\$93,491	13.11%
	CRSP U.S. Small Mid Growth	760	\$4,981,720	\$52,614	\$19	\$3,074	\$6,555	1.06%
Prime	CRSP ISS Large ESG Prime	162	\$19,964,215	\$2,807,204	\$2,668	\$40,353	\$123,236	14.06%
	CRSP ISS Large ESG Non-Prime	375	\$18,552,760	\$1,203,627	\$1,221	\$26,257	\$49,474	6.49%
	CRSP ISS Large ESG	270	\$26,067,003	\$2,807,204	\$2,668	\$35,230	\$96,544	10.77%
ESG	CRSP ISS Large ESG Remainder	267	\$12,449,972	\$1,203,627	\$1,221	\$25,111	\$46,629	9.67%
ESG	CRSP ISS Large ESG Industry Balanced	272	\$27,565,453	\$2,807,204	\$2,540	\$37,985	\$101,344	10.18%
Industry Balanced	CRSP ISS Large ESG Industry Balanced Remainder	265	\$10,951,523	\$658,987	\$1,221	\$24,291	\$41,327	6.02%
	CRSP U.S. Technology	426	\$1,314,577	\$247,167	\$2	\$550	\$3,086	18.80%
	CRSP U.S. Technology Unconstrained		\$13,220,748	\$2,807,204	\$2	\$1,337	\$31,035	21.23%
	CRSP U.S. Telecommunications	80	\$79,176	\$14,754	\$3	\$313	\$990	18.63%
	CRSP U.S. Telecommunication Unconstrained		\$955,097	\$210,334	\$3	\$476	\$11,939	22.02%
	CRSP U.S. Health Care	823	\$5,535,675	\$473,478	\$1	\$195	\$6,726	8.55%
	CRSP U.S. Health Care Unconstrained		\$5,535,675	\$473,478	\$1	\$195	\$6,726	8.55%
	CRSP U.S. Financials	586	\$4,520,535	\$658,987	\$4	\$747	\$7,714	14.58%
	CRSP U.S. Financials Unconstrained		\$4,520,535	\$658,987	\$4	\$747	\$7,714	14.58%
	CRSP U.S. Real Estate	198	\$1,293,812	\$114,692	\$4	\$1,492	\$6,534	8.86%
	CRSP U.S. Real Estate Unconstrained	562	\$1,293,812	\$114,692	\$4	\$1,492	\$6,534	8.86%
Sector Indexes	CRSP U.S. Consumer Discretionary		\$6,282,090	\$1,203,627	\$1 \$1	\$839 \$839	\$11,178 \$11,178	19.16% 19.16%
indexes	CRSP U.S. Consumer Discretionary Unconstraine CRSP U.S. Consumer Staples	146	\$6,282,090 \$2,221,458	\$1,203,627 \$363,775	\$1 \$2	\$1,034	\$15,215	16.38%
	CRSP U.S. Consumer Staples Unconstrained	140	\$2,221,458	\$363,775	\$2 \$2	\$1,034 \$1,034	\$15,215 \$15,215	16.38%
	CRSP U.S. Industrials	561	\$5,710,825	\$397,565	⊅∠ \$1	\$1,034 \$1,552	\$15,∠15 \$10.180	6.96%
	CRSP U.S. Industrials Unconstrained	301	\$5,710,825 \$5,710,825	\$397,565 \$397,565	\$1 \$1	\$1,552 \$1,552	\$10,180	6.96%
	CRSP U.S. Basic Materials	117	\$869,244	\$189,747	\$3	\$1,240	\$7,429	21.83%
	CRSP U.S. Basic Materials Unconstrained		\$869,244	\$189,747	\$3 \$3	\$1,240	\$7,429 \$7,429	21.83%
	CRSP U.S. Energy	182	\$201,595	\$42,923	\$ 4	\$112	\$1,108	21.29%
	CRSP U.S. Energy Unconstrained		\$2,014,671	\$449.539	\$4	\$995	\$11.070	22.31%
	CRSP U.S. Utilities	87	\$1,184,305	\$135,165	\$18	\$4,089	\$13,613	11.41%
	CRSP U.S. Utilities Unconstrained		\$1,184,305	\$135,165	\$18	\$4,089	\$13,613	11.41%

Note: Data as of 8/31/2023; counts may not add up due to banding and migration, see appendix; CRSP U.S. Sector Indexes are constrained indexes, meaning that securities' weights within sector indexes are adjusted to comply with IRS Regulated Investment Company (RIC) rules. Sector indexes with "Unconstrained" at the end of the name are not constrained to comply with IRS RIC rules. CRSP U.S. Sector Indexes based on Enhanced FTSE ICB® (EICB) methodology are used after 6/7/2020; CRSP U.S. Sector Indexes based on FTSE ICB® methodology are used prior to 6/5/2020. After 9/5/2023, CRSP U.S. Sector Indexes use ICE's Uniform Entity Sectors classification system.

APPENDIX – INDEX REFERENCE GUIDE

Index	Index Name (TR - Total Return, PR - Price Only Return)	Index Identifier	CUSIP	NASDAQ GIDS	Inception Date Open Val =	Bloomberg Ticker
Index	CRSP US Total Market Index (TR)	CRSPTMT	12628H109	Post Date 12/31/2012		BBG003PZ7F43
Total Market Index	CRSP US Total Market Index (PR)	CRSPTM1	12628G101	1/18/2011		BBG003F27143
CRSP Australian Hedged	CRSP US Total Market Index (AUD-hedged) (TR)	CRSPTAHT	12633D200	7/1/2015		BBG009J9GN20
Index	CRSP US Total Market Index (AUD-hedged) (PR)	CRSPTAH1	12633D101	7/1/2015		BBG009J9GN11
CRSP Australian Non- Hedged Index	CRSP US Total Market Total Return Index AUD (TR)	CRSPTMAT	12633D408	7/1/2015		BBG009J9GN48
-	CRSP US Total Market Index AUD (PR)	CRSPTMA1	12633D309	7/1/2015		BBG009J9GN39
CRSP Canadian Hedged Index	CRSP US Total Market Index (CAD-hedged) (TR)	CRSPTCHT	12630Y108	12/31/2012		BBG003PZ7F52
	CRSP US Total Market Index (CAD-hedged) (PR)	CRSPTCH1	12628G200	12/31/2012		BBG003PZ7F34
CRSP Canadian Non- Hedged Index	CRSP US Total Market Total Return Index CAD (TR)	CRSPTMCT	12632P204	4/15/2013		BBG004MFW5W1
Trougou much	CRSP US Total Market Index CAD (PR)	CRSPTMC1	12632M201	4/15/2013		BBG004MFW5V2
Mega Cap	CRSP US Mega Cap Index (TR) CRSP US Mega Cap Index (PR)	CRSPMET CRSPME1	12631H104 12627R108	12/31/2012 8/15/2011		BBG003PZ7F61 BBG001YCYN69
	CRSP US Mega Cap Growth Index (TR)	CRSPMEGT	12631K107	12/31/2012		BBG003PZ7F70
Mega Cap Growth	CRSP US Mega Cap Growth Index (PR)	CRSPMEG1	12630R103	10/1/2012		BBG003PZ7DH4
Mega Cap Value	CRSP US Mega Cap Value Index (TR)	CRSPMEVT	12631L105	12/31/2012		BBG003PZ7F89
• .	CRSP US Mega Cap Value Index (PR)	CRSPMEV1	12630T109	10/1/2012		BBG003PZ7DJ2
Large Cap (Mega + Mid)	CRSP US Large Cap Index (TR)	CRSPLCT	12631M103	12/31/2012		BBG003PZ7F98
Сар	CRSP US Large Cap Index (PR)	CRSPLC1	12627P102	8/15/2011		BBG001YCYN50
Large Cap Growth	CRSP US Large Cap Growth Index (TR)	CRSPLCGT	12631P106	12/31/2012		BBG003PZ7FB5
	CRSP US Large Cap Growth Index (PR) CRSP US Large Cap Value Index (TR)	CRSPLCVT	12630W102 12631R102	10/1/2012 12/31/2012		BBG003PZ7DK0 BBG003PZ7FC4
Large Cap Value	CRSP US Large Cap Value Index (TR)	CRSPLCV1	12631K102	10/1/2012		BBG003PZ7DL9
	CRSP US Mid Cap Index (TR)	CRSPMIT	12631T108	12/31/2012		BBG003PZ7FD3
Mid Cap	CRSP US Mid Cap Index (PR)	CRSPMI1	12627W107	8/15/2011		BBG001YCYN87
Mid Can Crawth	CRSP US Mid Cap Growth Index (TR)	CRSPMIGT	12628N106	12/31/2012		BBG003PZ7FF1
Mid Cap Growth	CRSP US Mid Cap Growth Index (PR)	CRSPMIG1	12631A109	10/1/2012	9/10/2012	BBG003PZ7DM8
Mid Cap Value	CRSP US Mid Cap Value Index (TR)	CRSPMIVT	12629L109	12/31/2012		BBG003PZ7FG0
cap raido	CRSP US Mid Cap Value Index (PR)	CRSPMIV1	12631C105	10/1/2012		BBG003PZ7DN7
Small-Mid Cap	CRSP US Small-Mid Cap Index (TR)	CRSPSMT	12591C103	3/10/2014		BBG0069LWSJ3
	CRSP US Small-Mid Cap Index (PR) CRSP US Small-Mid Cap Growth Index (TR)	CRSPSM1 CRSPSMGT	12632T107 12591P104	3/10/2014 3/10/2014		BBG0069LWSH5 BBG0069LWSF7
Small-Mid Cap Growth	CRSP US Small-Mid Cap Growth Index (PR)	CRSPSMG1	12591M101	3/10/2014		BBG0069LWSC0
	CRSP US Small-Mid Cap Value Index (TR)	CRSPSMVT	12591L103	3/10/2014		BBG0069LWSG6
Small-Mid Cap Value	CRSP US Small-Mid Cap Value Index (PR)	CRSPSMV1	12591E109	3/10/2014	9/10/2012	BBG0069LWSD9
Small Cap	CRSP US Small Cap Index (TR)	CRSPSCT	12630N102	12/31/2012	4/1/2011	BBG003PZ7FH9
Siliali Cap	CRSP US Small Cap Index (PR)	CRSPSC1	12628A104	8/15/2011		BBG001YCYNB3
Small Cap Growth	CRSP US Small Cap Growth Index (TR)	CRSPSCGT	12630V104	12/31/2012		BBG003PZ7FJ7
	CRSP US Small Cap Growth Index (PR)	CRSPSCG1	12631E101	10/1/2012		BBG003PZ7DP5
Small Cap Value	CRSP US Small Cap Value Index (TR) CRSP US Small Cap Value Index (PR)	CRSPSCVT CRSPSCV1	12631N101 12631F108	12/31/2012 10/1/2012		BBG003PZ7FK5 BBG003PZ7DQ4
	CRSP US Micro Cap Index (TR)	CRSPMCT	12631V103	12/31/2012		BBG003PZ7FL4
Micro Cap Index	CRSP US Micro Cap Index (PR)	CRSPMC1	12627T104	8/15/2011		BBG0031 271 L4
	CRSP ISS US Large Cap ESG Prime Index (TR)	CLESGPT	12657Y205	9/7/2021		BBG012CHZKD6
CRSP ISS ESG Prime	CRSP ISS US Large Cap ESG Prime Index (PR)	CLESGP	12657Y106	9/7/2021	9/7/2021	BBG012CHZK64
CRSP ISS ESG Non-Prime	CRSP ISS US Large Cap ESG Non-Prime Index (TR)	CLESGNPT	12658A206	9/7/2021	9/7/2021	BBG012CHZKF4
CRSP 133 E3G NOII-FIIIIle	CRSP ISS US Large Cap ESG Non-Prime Index (PR)	CLESGNP	12658A107	9/7/2021		BBG012CHZK73
CRSP ISS ESG	CRSP ISS US Large Cap ESG Index (TR)	CLESGT	12658D200	9/7/2021		BBG012CHZKG3
	CRSP ISS US Large Cap ESG Index (PR)	CLESG	12658D101	9/7/2021	9/7/2021	BBG012CHZK82
CRSP ISS ESG Remainder	CRSP ISS US Large Cap ESG Remainder Index (TR)	CLESGRT	12658E208	9/7/2021	9/7/2021	BBG012CHZKH2
	CRSP ISS US Large Cap ESG Remainder Index (PR) CRSP ISS US Large Cap ESG Industry Balanced	CLESGR	12658E109	9/7/2021	9/7/2021	BBG012CHZK91
CRSP ISS ESG Industry Balanced	Index (TR) CRSP ISS US Large Cap ESG Industry Balanced CRSP ISS US Large Cap ESG Industry Balanced	CLESGBT	12658F205	9/7/2021	9/7/2021	BBG012CHZKJ0
- Dulanoeu	Index (PR) CRSP ISS US Large Cap ESG Industry Balanced CRSP ISS US Large Cap ESG Industry Balanced	CLESGB	12658F106	9/7/2021	9/7/2021	BBG012CHZKB8
CRSP ISS ESG Industry Balanced Remainder	Remainder Index (TR) CRSP ISS US Large Cap ESG Industry Balanced CRSP ISS US Large Cap ESG Industry Balanced	CLESGBRT	12658K204	9/7/2021	9/7/2021	BBG012CHZKK8
Dalancea Nemaniuei	Remainder Index (PR)	CLESGBR	12658K105	9/7/2021	9/7/2021	BBG012CHZKC7

					Inception Date	
	Index Name	Index		NASDAQ GIDS	Open Val =	
Index	(TR - Total Return, PR - Price Only Return)	Identifier	CUSIP	Post Date	1000	Bloomberg Ticker
Consumer Staples	CRSP US Consumer Staples Index (TR)	CRSPCST	12631W101	12/31/2012	2/1/2012	BBG003PZ7FM3
Consumer Staples	CRSP US Consumer Staples Index (PR)	CRSPCS1	12630G107	7/16/2012	2/1/2012	BBG003PZ7DR3
Consumer Discretionary	CRSP US Consumer Discretionary Index (TR)	CRSPCDT	12631X109	12/31/2012	2/1/2012	BBG00VC1QCP3
Consumer Discretionary	CRSP US Consumer Discretionary Index (PR)	CRSPCD1	12630J101	7/16/2012	2/1/2012	BBG00VC1Q658
Energy	CRSP US Energy Index (TR)	CRSPENT	12631Y107	12/31/2012	2/1/2012	BBG003PZ7FP0
Lifergy	CRSP US Energy Index (PR)	CRSPEN1	12630A100	7/16/2012	2/1/2012	BBG003PZ7DT1
Financials	CRSP US Financials Index (TR)	CRSPFNT	12632A108	12/31/2012	2/1/2012	BBG003PZ7FQ9
rillaliciais	CRSP US Financials Index (PR)	CRSPFN1	12630M104	7/16/2012	2/1/2012	BBG003PZ7DV8
Health Care	CRSP US Health Care Index (TR)	CRSPHCT	12632C104	12/31/2012	2/1/2012	BBG003PZ7FR8
nealth Care	CRSP US Health Care Index (PR)	CRSPHC1	12630H105	7/16/2012	2/1/2012	BBG003PZ7DW7
Industrials	CRSP US Industrials Index (TR)	CRSPIDT	12632E100	12/31/2012	2/1/2012	BBG003PZ7FS7
industrials	CRSP US Industrials Index (PR)	CRSPID1	12630F109	7/16/2012	2/1/2012	BBG003PZ7DX6
Tachnalagy	CRSP US Technology Index (TR)	CRSPITT	12632F107	12/31/2012	2/1/2012	BBG003PZ7FT6
Technology	CRSP US Technology Index (PR)	CRSPIT1	12630P107	7/16/2012	2/1/2012	BBG003PZ7DY5
Basic Materials	CRSP US Basic Materials Index (TR)	CRSPMTT	12632G105	12/31/2012	2/1/2012	BBG003PZ7FV3
basic materials	CRSP US Basic Materials Index (PR)	CRSPMT1	12630E102	7/16/2012	2/1/2012	BBG003PZ7DZ4
Telecommunications	CRSP US Telecommunications Index (TR)	CRSPTET	12632H103	12/31/2012	2/1/2012	BBG003PZ7FW2
relecommunications	CRSP US Telecommunications Index (PR)	CRSPTE1	12630K108	7/16/2012	2/1/2012	BBG003PZ7F07
Utilities	CRSP US Utilities Index (TR)	CRSPUTT	12632J109	12/31/2012	2/1/2012	BBG003PZ7FX1
otilities	CRSP US Utilities Index (PR)	CRSPUT1	12630L106	7/16/2012	2/1/2012	BBG003PZ7F16
Real Estate	CRSP US Real Estate Index (TR)	CRSPRET	12632K106	12/31/2012	4/1/2011	BBG003PZ7FY0
Real Estate	CRSP US Real Estate Index (PR)	CRSPRE1	12627X105	8/15/2011	4/1/2011	BBG001YCYN96
Small Can an Back Fatata	CRSP US Small Cap ex-Real Estate Index (TR)	CRSPSXT	12632L104	12/31/2012	2/1/2012	BBG003PZ7FZ9
Small Cap ex-Real Estate	CRSP US Small Cap ex-Real Estate Index (PR)	CRSPSX1	12631G106	10/1/2012	9/10/2012	BBG003PZ7F25

APPENDIX - LIST OF ETFS/MUTUAL FUNDS USING CRSP INDEXES

ETFS

Index Info	Index Information Name Ticker		Fund Information URL
Mega Cap	CRSPMET	MGC	https://investor.vanguard.com/investment-products/etfs/profile/mgc
Mega Cap Growth	CRSPMEGT	MGK	https://investor.vanguard.com/investment-products/etfs/profile/mgk
Mega Cap Value	CRSPMEVT	MGV	https://investor.vanguard.com/investment-products/etfs/profile/mgv
Large Cap Large Cap Growth Large Cap Value	CRSPLCT CRSPLCGT CRSPLCVT	VV VUG VTV	https://investor.vanguard.com/investment-products/etfs/profile/vv https://investor.vanguard.com/investment-products/etfs/profile/vug https://investor.vanguard.com/investment-products/etfs/profile/vtv
Mid Cap Mid Cap Growth Mid Cap Value	CRSPMIT CRSPMIGT CRSPMIVT	VO VOT VOE	https://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/investment-products/etfs/profile/vohttps://investor.vanguard.com/i
Small Cap Small Cap Growth Small Cap Value	CRSPSCT CRSPSCGT CRSPSCVT	VB VBK VBR	https://investor.vanguard.com/investment-products/etfs/profile/vb https://investor.vanguard.com/investment-products/etfs/profile/vbk https://investor.vanguard.com/investment-products/etfs/profile/vbr
Total Market Canadian Hedged* Canadian Non- Hedged*	CRSPTMT CRSPTCHT CRSPTMCT	VTI VUS VUN	https://investor.vanguard.com/investment-products/etfs/profile/vti https://www.vanguard.ca/en/advisor/products/products-group/etfs/VUS https://www.vanguard.ca/en/advisor/products/products-group/etfs/VUN

MUTUAL FUNDS

Index Infor	mation		Fund Information
Name	Ticker	Ticker	URL
Mega Cap	CRSPME1	VMCTX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vmctx
Mega Cap Growth	CRSPMEG1	VMGAX	$\underline{https://investor.vanguard.com/investment-products/mutual-funds/profile/vmgax}$
Mega Cap Value	CRSPMEV1	VMVLX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vmvlx
Large Cap	CRSPLC1	VLCAX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vlcax
Large Cap Growth	CRSPLCG1	VIGAX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vigax
Large Cap Value	CRSPLCV1	VIVIX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vivix
Mid Cap	CRSPMI1	VVAMCIV	https://advisors.vanguard.com/investments/products/0288/vanguard-variable-insurance-fund-mid-cap-index-portfolio
Mid Cap	CRSPMI1	VIMAX	$\underline{\text{https://investor.vanguard.com/investment-products/mutual-funds/profile/vimax}}$
Mid Cap Growth	CRSPMIG1	VMGMX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vmgmx
Mid Cap Value	CRSPMIV1	VMVAX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vmvax
Small Cap	CRSPSC1	VSMAX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vsmax
Small Cap Growth	CRSPSCG1	VSGAX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vsgax
Small Cap Value	CRSPSCV1	VSIAX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vsiax
Total Market	CRSPTM1	VBIAX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vbiax
Total Market	CRSPTM1	VITPX	https://investor.vanguard.com/investment-products/mutual-funds/profile/vitpx
Total Market	CRSPTM1	VTSMX	https://institutional.vanguard.com/investments/product-details/fund/0585

APPENDIX - DEFINITIONS

Count: Number of companies contained within the index. A single company may have multiple securities associated with it. Counts for individual cap indexes may not add up to counts for the combined cap index due to banding and migration. For example, number of companies in Mega Cap Index plus number of companies in Mid Cap Index may not add up to number of companies in Large Cap. For more information regarding banding and migration please refer to the CRSP Methodology.

Float-Adjusted Market Cap: represents the float-adjusted market capitalization of a company as described in the <u>CRSP</u> <u>Methodology</u>. For sector indexes that had to be constrained to comply with IRS Regulated Investment Company rules, it means that the company's float adjusted market cap may have been adjusted further per our methodology.

Median Company: Median float-adjusted market capitalization of a company included in the index

Average Company: Average float-adjusted market capitalization of a company included in the index

Returns: total index returns are used in computations, with 1-, 3- and 5-year returns annualized

ISS ESG Performance Score: An ESG metric assigned by ISS based on its ISS ESG Corporate Rating, allowing direct comparisons of companies in different industries. ISS Performance Score is a numeric value between 0 and 100. See https://www.issgovernance.com/esg/ratings/ for ISS definitions.

ISS Prime Indicator: A flag set by ISS for a company based on whether its ISS ESG Performance Score is at least 50. If a company meets the minimum threshold it is designated as Prime, and if not it is designated as Non-Prime. See https://www.issgovernance.com/esg/ratings/ for ISS definitions.

Portfolio ISS ESG Performance Score: Portfolio ISS ESG Performance Score is computed by weighting securities' ISS ESG Performance Score by the corresponding weight in the index

Citing CRSP

Any dissemination (including by electronic means or in any other form) of the graphs or information herein shall include an attribution to CRSP as follows. "This data and information is based on data from the Center for Research in Security Prices, LLC (CRSP), ©YYYY." YYYY being the year the database was published.

Disclaimers

By accessing this report, you are indicating that you have read, and consent to be bound by these terms. The report is provided for informational, noncommercial purposes only, and may not be used as a basis for any financial instruments or products (including, without limitation, passively managed funds and index-linked derivative securities), or used to verify or correct data in any other compilation of data or index, or used to create any other data or index, without the prior written consent of CRSP®.

CRSP, its affiliates, its parent company, and its third party suppliers do not make any representations or guarantees regarding the accuracy of the data or information. Although the contents have been obtained from sources believed to be reliable, they are provided to your institution on an "as is" basis without warranties of any kind. With respect to this service and the contents, and to the fullest extent permitted by applicable law, CRSP, its affiliates, its parent company, and its third party suppliers hereby disclaim all express, implied and statutory warranties of any kind to the Subscriber or any third party, including, but not limited to, representations and warranties regarding accuracy, completeness, correctness, merchantability, or fitness for any particular purpose, or any representations or warranties arising from usage or custom or trade or by operation of law. CRSP, its affiliates, its parent company, and its third party suppliers, assume no responsibility for the consequences of any errors or omissions. In no event shall CRSP, its affiliates, its parent company, or its third party suppliers be liable to the Subscriber or to any third party for any loss or injury caused in whole or in part by contingencies beyond their control or negligence in procuring, compiling, or delivering any data or information. In no event shall CRSP, its affiliates, its parent company, or its third party suppliers be liable to the Subscriber or any third party for any claim arising out of or relating to CRSP-provided data or information, including, but not limited to, any decision made or action taken by your institution and any and all users affiliated with your institution based on the use of the data or information or for any types of damages (such as, but not limited to, direct, consequential, special, incidental, punitive or indirect damages), even if advised of the possibility of such damages.

All information is provided for informational purposes only. Every effort is made to ensure that all information given in this publication is accurate, but no responsibility or liability can be accepted by CRSP® nor its licensors for any errors or for any loss from use of this publication. Neither CRSP® nor any of its licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the results to be obtained from the use of the CRSP Indexes or the fitness or suitability of the Indexes for any particular purpose to which they might be put. The content is not an offer or recommendation to buy or sell, or a solicitation of an offer to buy or sell any security or instrument, or to participate in any particular trading strategy. Further, none of the content is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. The report is provided to you on an "as is" basis without warranties of any kind. CRSP® does not provide investment advice and nothing in this document should be taken as constituting financial or investment advice. CRSP® makes no representation regarding the advisability of investing in any asset. A decision to invest in any such asset should not be made in reliance on any information herein. Indexes cannot be invested in directly. Inclusion of an asset in an index is not a recommendation to buy, sell or hold that asset. The general information contained in this publication should not be acted upon without obtaining specific legal, tax, and investment advice from a licensed professional. No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise. Distribution of the CRSP® index values and the use of their indexes to create financial products require a license with CRSP® and/or its licensors.

CRSP uses various trademarks and trade names in the ordinary course of its business, including without limitation, CRSP's corporate name and logo. All other trademarks or trade names referred to in this paper are the property of their respective owners. Solely for convenience, the trademarks and trade names in this paper may be referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

The Industry Classification Benchmark ("ICB") is owned by FTSE International Limited ("FTSE"). Neither CRSP® nor FTSE accept any liability to any person for any loss or damage arising out of any error or omission in the ICB. Past performance is no guarantee of future results. Charts and graphs are provided for illustrative purposes only. Index returns shown may not represent the results of the actual trading of investable assets. Certain returns shown may reflect back-tested performance. All performance presented prior to the index inception date is back-tested performance. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. However, back-tested data may reflect the application of the index methodology with the benefit of hindsight, and the historic calculations of an index may change from month to month based on revisions to the underlying economic data used in the calculation of the index.

The Industry Classification Benchmark ("ICB") is a product of FTSE International Limited ("FTSE") and is licensed for use. FTSE is part of the London Stock Exchange Group plc and its applicable group undertakings (the "LSE Group"). The LSE Group includes (1) FTSE International Limited ("FTSE"), (2) Frank Russell Company ("Russell"), (3) FTSE Global Debt Capital Markets Inc. and FTSE Global Debt Capital Markets Limited (together, "FTSE Canada"), (4) MTSNext Limited ("MTSNext"), (5) Mergent, Inc. ("Mergent"), (6) FTSE Fixed Income LLC ("FTSE FI") and (7) The Yield Book Inc ("YB"). FTSE Russell® is a trading name of FTSE, Russell, FTSE Canada, MTSNext, Mergent, FTSE FI, YB. "FTSE®", "Russell®", "FTSE Russell®", "MTS®", "MTS®", "FTSE4Good®", "ICB®", "Mergent®", "The Yield Book®" and all other trademarks and service marks used herein (whether registered or unregistered) are trademarks and/or service marks owned or licensed by the applicable member of the LSE Group or their respective licensors and are owned, or used under license, by FTSE, Russell, MTSNext, FTSE Canada, Mergent, FTSE FI, YB. FTSE International Limited is authorized and regulated by the Financial Conduct Authority as a benchmark administrator.

ISS ESG Performance Score, ISS ESG Prime Indicator are the products of Institutional Shareholder Services Inc. (ISS) and is licensed for use. For more information please refer to the information at https://www.issgovernance.com/.

©2023 CRSP. All rights reserved.