



2022

STATE TEACHERS RETIREMENT SYSTEM OF OHIO

# **Defined Contribution Investments**ANNUAL FINANCIAL REPORT

Fiscal Year Ending June 30, 2022





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# STATE TEACHERS RETIREMENT SYSTEM OF OHIO

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#### June 2023

The State Teachers Retirement Board and STRS Ohio staff are pleased to present our *Defined Contribution Investments Annual Report* for fiscal year 2022. This report contains investment information and results from July 1, 2021–June 30, 2022, for STRS Ohio's defined contribution account investment choices.

Fiscal year 2022 was a challenging year for the financial markets. Inflation pressures in the United States and globally led to a rising interest rate environment. The Russian invasion of Ukraine led to supply disruptions and further unsettled the markets. These and other factors combined to turn both equity and bond markets returns negative for fiscal 2022. The top performing investment choice was the STRS Money Market Choice, the only defined contribution investment choice to record a positive return in fiscal 2022. A summary of the performance of all of the investment choices is included in the Performance Sections that begins on Page 7.

At fiscal 2022 year-end, total assets for the Defined Contribution Plan and the defined contribution portion of the Combined Plan totaled more than \$2.1 billion, a decrease from \$2.4 billion at the end of fiscal 2021. Under these plans, STRS Ohio provides investment choices that members can select to determine the accumulation of their account based on their individual time horizon and risk tolerance.

The *Defined Contribution Investments Annual Report* is divided into four sections: (1) the Introductory Section includes this letter and annualized rates of return; (2) the Economic and Financial Markets Overview Section describes economic changes that potentially affected the investment market; (3) the Performance Section details each investment choice and covers its annual performance; and (4) the Disclosure Section includes key rules, concepts and definitions.

As you plan your financial future, we are pleased to work with Nationwide Retirement Solutions to provide resources to help you on your journey. We at STRS Ohio look forward to working with you throughout your career and partnering with you in helping to build retirement security.

Carol Correthers

**Chair, State Teachers Retirement Board** 

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William J. Neville Executive Director

William & Neville

# Investment Performance Report as of June 30, 2022





#### **VARIABLE INVESTMENT CHOICES**

Cash	1 Year	3 Years	5 Years	10 Years		
STRS Money Market Choice <sup>B</sup>	0.23%	0.52%	1.00%	0.61%		
Index: 90-day U.S. Treasury bill	0.17%	0.63%	1.11%	0.64%		
Bonds	1 Year	3 Years	5 Years	10 Years		
STRS Bloomberg U.S. Universal Bond Index Choice <sup>AB</sup>	-10.96%	-1.01%	0.85%	1.70%		
Index: Bloomberg U.S. Universal Bond Index	-10.89%	-0.94%	0.94%	1.83%		
Large-Cap	1 Year	3 Years	5 Years	10 Years		
STRS Large-Cap Core Choice <sup>8</sup>	-10.83%	10.81%	9.95%	11.69%		
Index: Russell 1000® Index	-13.04%	10.17%	11.00%	12.82%		
STRS Russell 1000® Index Choice <sup>B</sup>	-13.08%	10.12%	10.94%	12.72%		
Index: Russell 1000® Index	-13.04%	10.17%	11.00%	12.82%		
Mid-Cap	1 Year	3 Years	5 Years	10 Years	Since Inception <sup>E</sup>	Inception Date
STRS Russell Midcap® Index Choice <sup>B</sup>	-17.36%	6.52%	7.88%	N/A	9.73%	7/1/2013
Index: Russell Midcap® Index	-17.30%	6.59%	7.96%	N/A	9.82%	
Small-Cap	1 Year	3 Years	5 Years	10 Years		
STRS Russell 2000® Index Choice <sup>B</sup>	-25.25%	4.14%	5.09%	9.24%		
Index: Russell 2000® Index	-25.20%	4.21%	5.17%	9.35%		
International	1 Year	3 Years	5 Years	10 Years		
STRS MSCI World ex USA Index Choice <sup>B</sup>	-16.84%	1.60%	2.54%	5.18%		
Index: MSCI World ex USA Index	-16.76%	1.70%	2.66%	5.37%		
STRS MSCI ACWI ex USA Index Choice <sup>B</sup>	-19.53%	1.21%	N/A	N/A	1.20%	7/1/2018
Index: MSCI ACWI ex USA	-19.42%	1.35%	N/A	N/A	1.34%	
Specialty/Real Estate	1 Year	3 Years	5 Years	10 Years		
STRS REIT Index Choice <sup>BC</sup>	-6.37%	3.90%	5.19%	7.10%		
Index: FTSE NAREIT Equity REIT	-6.27%	4.00%	5.30%	7.39%		
TARGET CHOICE OPTIONS						
Blends	1 Year	3 Years	5 Years	10 Years	Since Inception <sup>E</sup>	Inception Date
STRS Target Choice 2025 <sup>B</sup>	-12.79%	3.70%	4.95%	N/A	6.26%	7/1/2013
STRS Target Choice 2030 <sup>B</sup>	-13.14%	4.20%	5.39%	N/A	6.72%	7/1/2013
STRS Target Choice 2035 <sup>B</sup>	-13.47%	4.71%	5.84%	N/A	7.19%	7/1/2013
STRS Target Choice 2040 <sup>B</sup>	-13.81%	5.17%	6.24%	N/A	7.57%	7/1/2013
STRS Target Choice 2045 <sup>B</sup>	-14.16%	5.67%	6.58%	N/A	7.79%	7/1/2013
STRS Target Choice 2050 <sup>B</sup>	-14.23%	5.64%	6.57%	N/A	7.78%	7/1/2013
STRS Target Choice 2055 <sup>B</sup>	-14.23%	5.63%	N/A	N/A	5.80%	7/1/2018
STRS Target Choice 2060 <sup>B</sup>	-14.23%	5.63%	N/A	N/A	5.80%	7/1/2018

# **TOTAL GUARANTEED RETURN CHOICE**

Balanced	<b>Current Rate</b>	
STRS Total Guaranteed Return Choice 2022 <sup>D</sup>	4.25%	(For contributions made between July 1, 2017–June 30, 2018 — closed to new investments)

Historical performance is not necessarily indicative of actual future investment performance, which could differ substantially. A member's units, when redeemed, may be worth more or less than their original cost. All performance figures after June 30, 2001, are provided net of annual fees. All returns are calculated in U.S. dollars. Current performance may be lower or higher than the performance data indicated above. For current performance data, call Nationwide Retirement Solutions toll-free at 866-332-3342 or visit www.strsoh.org.

The Russell Indices are a trademark of FTSE International Limited (FTSE) and Frank Russell Company (Russell) and their respective subsidiary undertakings, which are members of the London Stock Exchange Group plc group. STRS Ohio Investment Choices are not sponsored, endorsed, sold, or promoted by Russell and Russell makes no representation, warranty or guarantee regarding the use of the Russell Indices or the advisability of investing in the investment choices.

The MSCI Indices are a trademark of MSCI Inc. STRS Ohio investment choices are not sponsored, endorsed, or promoted by MSCI, and MSCI bears no liability with respect to any investment choice or any index on which the investment choice is based.

BLOOMBERG® and the Bloomberg U.S. Universal Bond Index are service marks of Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited ("BISL"), the administrator of the index (collectively "Bloomberg") and have been licensed for certain purposes by State Teachers Retirement System of Ohio. Bloomberg is not affiliated with State Teachers Retirement System of Ohio, and Bloomberg does not approve, endorse, review or recommend the STRS Bloomberg U.S. Universal Bond Index Choice or any STRS Target Choice (collectively, "STRS Investment Choices"). Bloomberg does not guarantee the timeliness, accurateness or completeness of any data or information relating to the STRS Investment Choices.

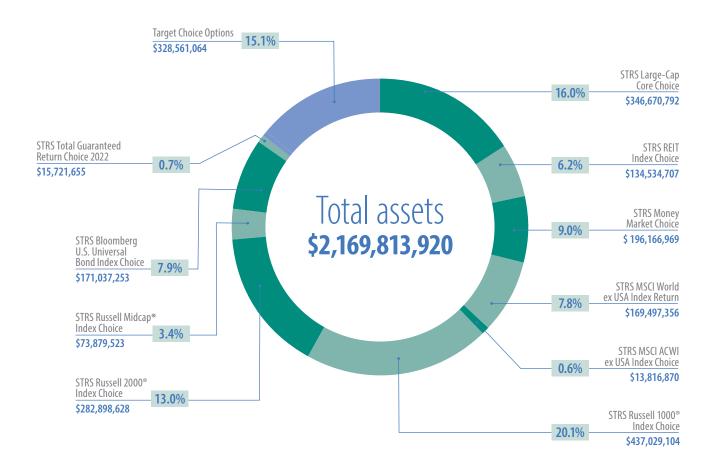
<sup>&</sup>lt;sup>B</sup> Performance figures for the STRS Index choices reflect the deduction of management fees. The corresponding indexes are unmanaged, do not incur fees and cannot be invested in directly.

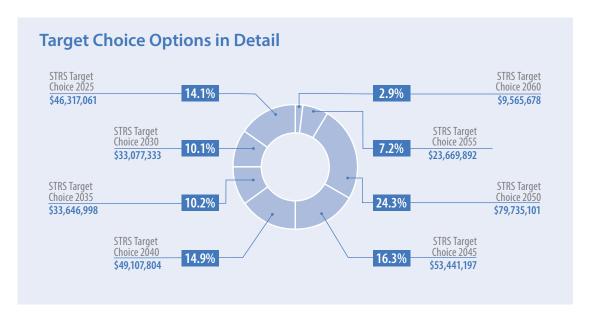
 $<sup>^{\</sup>rm C}$  The performance is based on the actively managed STRS REIT Choice until June 30, 2014, and the performance of the STRS REIT Index Choice after that date.

<sup>&</sup>lt;sup>D</sup> There is no annual asset management fee for this choice. See the *Investment Options Guide*.

<sup>&</sup>lt;sup>E</sup> Reflects annualized performance since inception if less than 10 years.

# Defined Contribution Asset Value by Investment Choice As of June 30, 2022





The chart above displays STRS Ohio's defined contribution holdings and percentage of total assets for the fiscal year ending June 30, 2022. More information on these options can be found in the Performance Section beginning on Page 7.

# Economic and Financial Markets Overview



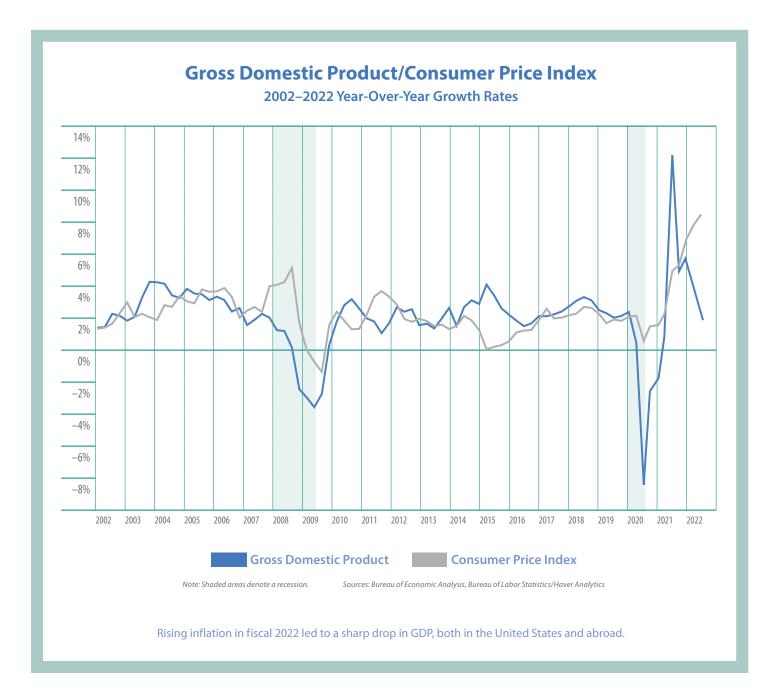
# Inflation, rising interest rates impact returns in fiscal 2022

Since the coronavirus pandemic recession occurred near the end of fiscal 2020, U.S. economic activity has been turbulent. The economy was affected by lockdowns and other mitigation efforts that attempted to control the initial COVID-19 strain, a soaring recovery once the lockdowns were lifted, additional virus variants that temporarily reintroduced controls on businesses and consumers, supply chain disruptions and, most recently, a Russian invasion of Ukraine that has been countered by Western nations. These issues have forced U.S. and foreign policymakers to adopt flexible fiscal and monetary policies that focused on supporting economic growth. However, by doing so, price inflation in the United States and elsewhere has skyrocketed, leading to 40-year highs in costs for businesses and consumers.

Business fixed investment recorded moderate 2.4% growth in fiscal 2022 after a vigorous 12.5% gain in fiscal 2021. Orders for capital equipment continued to accelerate in late fiscal 2022 and capital spending plans from companies remain strong, though slightly off their expansion peak. Larger companies continue to outpace smaller ones since the pandemic recession devastated smaller companies. But, even with surveys that focus on larger companies, a notable softening trend developed in the spring of 2022.

By March, the jobs market moved ever closer to the conditions that existed prior to the pandemic. The unemployment rate fell to 3.6% — just above the 3.5% rate before the pandemic — from 5.9% at the beginning of fiscal 2022, while the number of employed rose at the end of fiscal 2022 to a level just 600,000 short of the peak prior to the recession. The difference between nationwide job openings and the number of unemployed remained at record highs while wage pressures continued to grow for companies. Nearly all employment indicators pointed to a continued strong labor market. Like other economic sectors, the fundamental conditions for real consumer spending (about 70% of the U.S. economy) remained somewhat positive heading into fiscal 2023. The labor market was strong and wage growth robust. Yet, high inflation continues to weaken the magnitude of wage gains.

Commonly cited inflation indicators began to significantly accelerate in the spring of 2021. At the time and for about a half-year later, Federal Reserve officials and most economists attributed much of the surge to global supply chain disruptions following the shutdown and reopening of economies around the world during the coronavirus pandemic. The surge in demand for goods and services from stimulative fiscal and monetary policy around the world put a great deal of pressure on limited supplies of materials and labor. Forty-year highs in inflation followed. Meanwhile, monetary policymakers in the United States treated the inflation surge as transitory, expecting the supply and demand imbalances would ease in fiscal 2022 and return average inflation into an acceptable range around the Federal Reserve's long-



# Economic and Financial Markets Overview



term policy target of 2% inflation. When non-traditional inflation measures like Dallas Federal Reserve Bank's trimmed mean personal consumption expenditures (PCE) price index also began to surge in the fall of 2021, monetary policymakers started to fear that unacceptably high inflation could become more established in consumer and business expectations. Soon after, Federal Reserve policymakers provided forward guidance that the days of easy money to protect against intermittent fears of an economic downturn would end and that a concerted effort to lower inflation was about to begin.

As of its June monetary policy meeting, the Federal Reserve has moved up the range on its main policy tool — the short-term federal funds rate — to 1.5%–1.75% from the 0%–0.25% range it moved within for two years, ending with mid-March 2022. Most monetary policy officials would like to return policy to a neutral-to-restrictive stance where nominal interest rates exceed the inflation rate. Besides its main policy tool of targeting a stimulative range for the nominal federal funds rate during and after the coronavirus recession, the Federal Reserve more than doubled the level of assets on its balance sheet to nearly \$9 trillion, or roughly 35% the size of U.S. nominal economy at the end of fiscal 2022. Prior to the global financial crisis in 2008–2009 and the resulting Great Recession, the Federal Reserve did not actively use quantitative easing as a monetary policy tool to keep longer-term interest rates lower as well. Indeed, assets on its balance sheet were consistently around just 6% of

nominal GDP prior to the global financial crisis. The Federal Reserve has already announced a plan to allow assets to run off its balance sheet as they mature. If the program plays out without causing too strong of a surge in long-term interest rates that then leads the central bank to adjust quantitative tightening, then roughly \$1.1 trillion in assets would leave the Federal Reserve's balance sheet each year going forward. The forward guidance on this quantitative tightening program along with the course being described for short-term interest rates has already led to an increase in U.S. long-term interest rates.

# Money market returns follow U.S. Federal Reserve short-term rates

The STRS Money Market Choice followed the Federal Reserve short-term interest rates slightly higher in fiscal 2022. Monetary policymakers increased interest rates in response to higher inflation that began to impact the economy in the second half of the fiscal year.

# Fixed-income returns pressed by rising interest rates

Fiscal 2022 was a challenging year for the fixed-income market, as returns were driven by higher interest rates and wider credit spreads. Rising interest rates, mainly to combat inflation, led to negative returns in all sectors of the fixed-income market.

# Economic and Financial Markets Overview

# U.S. equity market falls after 12 straight years of gains

The U.S. equity market was a tale of two markets in fiscal 2022. The first half of the fiscal year saw a continuation of the gains seen in fiscal 2021. In the first six months of the year, the market was buoyed by economic stimulus in the United States and continued easing of COVID-19 restrictions. The equity market rose in the first half of the fiscal year, closing at an alltime high on Jan. 3, 2022. The second half of the fiscal year saw a significant increase in inflation, especially in food and energy costs. Prices of oil and food spiked as Russia invaded Ukraine early in the calendar year. Additionally, the Federal Reserve signaled a move toward tightening monetary policy which increased investor expectations of an economic slowdown and resulted in a market correction. The equity market closed the fiscal year down more than 20% from the market high of January and off 10.6% for the fiscal year.

# International Equities driven lower by inflation pressures, conflict in Ukraine

The international markets recorded a large negative return in fiscal 2022 due to several factors, including heightened inflationary pressure, the Russian invasion of Ukraine and slower growth in China. Returns for the year were harmed by the contraction of valuation multiples, as interest rates climbed due to elevated inflation. All countries except one in the developed markets recorded negative returns in U.S. dollar terms. The best performing developed countries were Portugal (+2.3%), Norway (-0.2%) and United Kingdom (-4.0%).

# REITs feel impact of rising interest rates

Real estate investment trusts (REITs) rose in the first half of fiscal 2022, but rising interest rates drove returns sharply lower in the second half of the fiscal year, leading to a negative overall return for the year. Accelerating inflation across the globe required an aggressive response from central banks — resulting in interest rate increases. As rates rose in the second half of fiscal 2022, the strongest sector performers in this "risk off" period included healthcare and triple-net REITs (where tenants pay all expenses of the property).

The STRS Money Market Choice is intended to provide income consistent with the preservation of principal and liquidity. The performance objective is to exceed the 90-day U.S. Treasury bill return, before fees. Investments will generally consist of U.S. dollar-denominated commercial paper and other short-term corporate obligations that are rated in the highest category (A1/P1 rating) by the rating organizations, as well as securities that are guaranteed by the U.S. government or one of its related agencies. Credit quality is emphasized for preservation of principal and liquidity.

Securities selected for investment offer competitive yields and meet the policy objectives pertaining to credit quality, maturity and diversification. Interest rates and the maturity of the individual securities relative to the maturity of the portfolio as a whole are also considered.

# **Annual Asset Management Fee**

The total annual fee for the STRS Money Market Choice is no greater than 0.10%.

# Performance

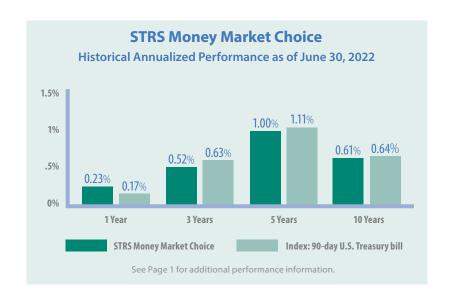
The STRS Money Market Choice returned 0.23%, after fees, for fiscal year 2022 compared to the benchmark 90-Day U.S. Treasury bill that returned 0.17%. The choice invested mainly in U.S. government-backed Treasury bills and Agency Notes, but supplemented yields with investments in Commercial Paper with maturities within 12 months.

# **Market Drivers**

STRS Money Market Choice performance was 0.23%, after fees, for the year. Yields follow the current short-term interest rates maintained by the U.S. Federal Reserve, which had an effective rate between 0% and 0.25% for most of the fiscal year until the Fed began to raise short-term interest rates in March 2022. Monetary policymakers began to raise interest rates in order to combat higher inflation. U.S. Government and Agency Notes made up the bulk of the investable universe with Commercial Paper to a lesser extent. The table below shows the STRS Money Market Choice investment allocation:

# Sector Weightings as of June 30, 2022

Sector	Weight
U.S. Government and Agency Notes	95.2%
Money Market	3.0%
Commercial Paper	1.8%
Total STRS Money Market Choice	100%



# STRS Bloomberg U.S. Universal Bond Index Choice **Bonds**

#### Structure

The STRS Bloomberg U.S. Universal Bond Choice is intended to closely track the return of the Bloomberg U.S. Universal Bond Index (Index), before fees. Total returns are comprised of changes in principal values plus interest income earned. The index consists entirely of U.S. dollar-denominated securities. A significant portion of the index includes debt issued by the U.S. government and government-related entities, mortgage securities that include agency mortgagebacked, commercial mortgage-backed and asset-backed securities, and investment grade corporate bonds. A small portion of the index is high-yield debt with ratings below the Baa category. Also included is debt from emerging market countries and other foreign issuers. The STRS Bloomberg U.S. Universal Bond Choice provides members an opportunity to earn the return of a diversified portfolio of fixed-income securities. Summary statistics for the Bloomberg U.S. Universal Bond Index are shown below.

# **Annual Asset Management Fee**

The total annual fee for the STRS Bloomberg U.S. Universal Bond Index Choice is 0.07%.

# Performance

For the fiscal year ending June 30, 2022, the STRS Bloomberg U.S. Universal Bond Index Choice returned –10.96%, after fees. This section details the performance of the Bloomberg U.S. Universal Bond Index. While the STRS Ohio fixedincome choice seeks to closely track the performance of its corresponding index, actual performance will differ because the index does not incur management fees.

For Fiscal 2022, the Bloomberg U.S. Universal Index had a return of -10.89%. Fixed income returns were driven by higher interest rates and wider credit spreads. The highest returning sector was asset-backed securities (-4.27%), followed by commercial mortgage-backed securities (-8.89%), Treasuries (-8.90%), mortgage-backed securities (-9.03%), government related (-9.26%), high yield (-12.81%), investment grade corporates (-14.19%) and emerging markets (-18.02%).

Bloomberg® and the Bloomberg U.S. Universal Bond Index are service marks of Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited ("BISL"), the administrator of the index (collectively, "Bloomberg"), and have been licensed for use for certain purposes by State Teachers Retirement System of Ohio. Bloomberg is not affiliated with State Teachers Retirement System of Ohio, and Bloomberg does not approve, endorse, review, or recommend the STRS Bloomberg U.S. Universal Bond Index Choice or any STRS Target Choice (collectively, "STRS Investment Choices"). Bloomberg does not guarantee the timeliness, accurateness, or completeness of any data or information relating to the STRS Investment Choices.

# STRS Bloomberg U.S. Universal Bond Index Choice



# **Market Drivers**

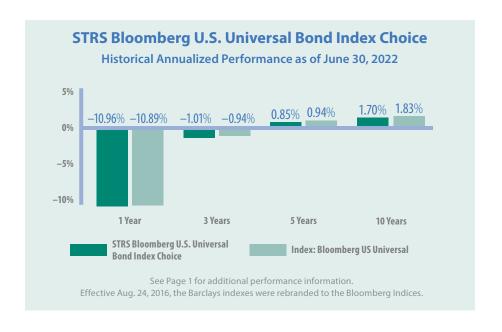
Bond market returns were low in fiscal 2022 as interest rates increased and credit spreads widened. In response to rising inflation, the Federal Reserve began to aggressively raise short-term interest rates. These rate increases and forward guidance provided by the Fed also put further upward pressure on long-term interest rates, negatively impacting bond market returns. The 10-year U.S. Treasury bond yield rose from 1.47% at the beginning of the fiscal year to 3.01% at fiscal year-end, resulting in price depreciation.

# Sector Weightings as of June 30, 2022

•			
Sector		\	Weight
Treasury			34%
Mortgage			26%
Corporate			24%
Emerging	Market		7%
Governme	nt-Related		5%
High Yield			4%
Total STRS Bloo U.S. Universal B			100%

# Index Statistics as of June 30, 2022

Number of Issues	19,688
Average Yield	4.21%
Average Maturity	8.45 Years
Market Value	\$29.36 Trillion



The STRS Large-Cap Core Choice seeks long-term capital appreciation by investing in a diversified portfolio of largecapitalization U.S. equities. The goal of the portfolio is to generate returns in excess of the Russell 1000® Index, before fees. The Russell 1000<sup>®</sup> Index represents the 1,000 largest companies traded in the U.S. markets. This choice is broadbased and well-diversified, making it suitable as a core equity holding within a portfolio. Keeping in mind that each investor's risk tolerance is different, the amount of large-cap holdings in an investor's portfolio should be based on risk tolerance and investment goals. The excess return for this choice is expected to come largely from stock selection and, to a lesser extent, industry or sector allocation.

# **Annual Asset Management Fee**

The total annual fee for STRS Large-Cap Core Choice is 0.30%.

# Performance

The STRS Large-Cap Core Choice fell –10.83% after fees in the fiscal year ending June 30, 2022. This exceeded the return of -13.04% posted by the benchmark Russell 1000® index. Outperformance was attributed to both stock selection and sector weightings, with much of the strength due to a bias toward lower multiple value stocks and defensive sectors.

# **Market Drivers**

After 12 consecutive years of gains, the U.S. equity market, as measured by the Russell 1000® Index, fell –13.04% during the period.

The first half of the fiscal year saw a continuation of the gains seen in fiscal 2021 as the market was buoyed by economic stimulus in the United States and continued easing of COVID-19 restrictions. The equity market closed at an all-time high on Jan. 3, 2022.

The second half of the fiscal year saw a large increase in inflation, especially in food and energy. Prices of oil and food spiked as Russia invaded Ukraine. The Federal Reserve began taking action to tighten monetary policy. Investment sentiment turned negative on fears of a potentially slowing economy and resulting slower growth in corporate earnings.

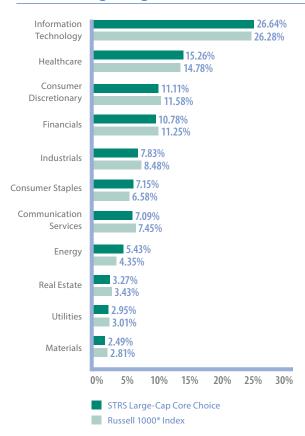
Valuation multiples contracted as the Federal Reserve began raising interest rates. Higher multiple growth stocks fared poorly, with communication services, consumer discretionary and information technology sectors performing the worst. The energy sector posted the best results, followed by the sectors with defensive characteristics, such as utilities, consumer staples and healthcare.

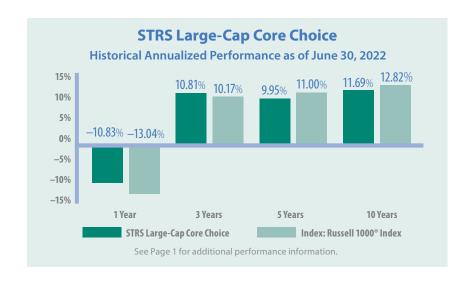
# Top 10 Holdings as of June 30, 2022

Top 10 Holdings	% of Total Investment Choice
Microsoft Corp. (MSFT)	5.18%
Apple Inc. (AAPL)	5.06%
Amazon.com Inc (AMZN)	2.90%
Alphabet Inc. Class A (GOOGL)	2.64%
Exxon Mobil Corp. (XOM)	1.73%
Berkshire Hathaway Inc. Class B (BRK/I	3)1.62%
UnitedHealth Group Inc. (UNH)	1.35%
Johnson & Johnson (JNJ)	1.32%
Cisco Systems Inc. (CSCO)	1.26%
Raytheon Technologies Corp. (RTX)	1.24%

Top 10 holdings represent 24.3% of the total investment choice.

# Sector Weightings as of June 30, 2022





The STRS Russell 1000 Index Choice is an investment choice that is intended to closely match the performance of the Russell 1000<sup>®</sup> Index, before fees.

As the name implies, the Russell 1000® Index is comprised of approximately 1,000 U.S. companies selected for their large market capitalization, liquidity and industry classifications. These stocks represent 92% of the characteristics of the U.S. market.

The STRS Russell 1000 Index Choice is a large-cap choice designed to diversify portfolio holdings and is intended to be a long-term investment option.

Wilshire Associates suggests holding a large-cap equity choice as part of a well-diversified investment portfolio. Keeping in mind that each investor's risk tolerance is different, the amount of large-cap holdings in an investor's portfolio should be based on risk tolerance and investment goals.

# Top 10 Holdings as of June 30, 2022

Top 10 Holdings	% of Total Investment Choice
Apple Inc. (AAPL)	5.92%
Microsoft Corp. (MSFT)	5.44%
Amazon.com Inc. (AMZN)	2.67%
Alphabet Inc. Class A (GOOGL)	1.85%
Alphabet Inc. Class C (GOOG)	1.70%
Tesla Inc. (TSLA)	1.62%
Berkshire Hathaway Inc. CL-B (BRK	(.B)1.39%
UnitedHealth Group Inc. (UNH)	1.36%
Johnson & Johnson (JNJ)	1.32%
Meta Platforms Inc. (META)	1.05%

Top 10 holdings represent 24.32% of the total investment choice.

# **Annual Asset Management Fee**

The total annual fee for STRS Russell 1000 Index Choice is 0.05%.

# Sector Weightings as of June 30, 2022

Sec	tor	Weight
	Information Technology	26.28%
	Healthcare	14.78%
	Consumer Discretionary	11.58%
	Financials	11.25%
	Industrials	8.48%
	Communication Services	7.45%
	Consumer Staples	6.58%
	Energy	4.35%
	Real Estate	3.43%
	Utilities	3.01%
	Materials	2.81%
Tota	al Russell 1000® Index	100.00%

# **Performance**

The STRS Russell 1000 Index Choice fell -13.08%, after fees, for the fiscal year ending June 30, 2022. While the STRS Russell 1000 Index Choice seeks to closely track the performance of its corresponding index, actual performance will differ because the index does not incur management fees.

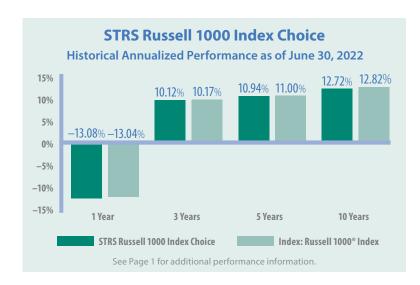
#### **Market Drivers**

After 12 consecutive years of gains, the U.S. equity market, as measured by the Russell 1000° Index, fell –13.04% during the period.

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The second half of the fiscal year saw a large increase in inflation, especially in food and energy. Prices of oil and food spiked as Russia invaded Ukraine. The Federal Reserve began taking action to tighten monetary policy. Investment sentiment turned negative on fears of a potentially slowing economy and resulting slower growth in corporate earnings.

Valuation multiples contracted as the Federal Reserve began raising interest rates. Higher multiple growth stocks fared poorly, with communication services, consumer discretionary and information technology sectors performing the worst. The energy sector posted the best results, followed by the sectors with defensive characteristics, such as utilities, consumer staples and healthcare.

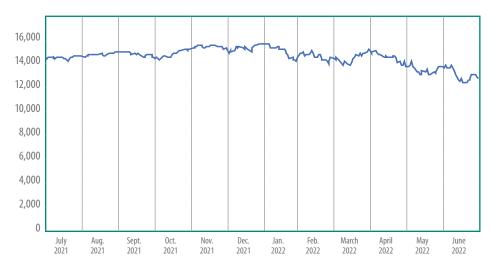


# Index Statistics as of June 30, 2022

Total Market Value	\$35.30 Trillion
Largest Company Market Value	\$2.21 Trillion
Weighted Average Market Value	\$437.47 Billion
Mean Market Value	\$37.55 Billion
Smallest Company Market Value	\$1.87 Billion
Median Share Price	\$70.02
P/E Ratio	17.68
Dividend Yield	1.68%

# Russell 1000® Index Values

For Fiscal Year 2022



Note: Figures in the chart above are based on Russell non-intraday values utilized for reporting in Russell Index products and services. The Russell U.S. equity index values shown on most financial sites and in the media began at a later date and at a different beginning value than the original set of values shown above. While the STRS Russell 1000 Index Choice seeks to closely match the performance of the Russell 1000® Index, its actual performance will differ because the Index does not incur management fees.

The Russell Indices are a trademark of FTSE International Limited (FTSE) and Frank Russell Company (Russell) and their respective subsidiary undertakings, which are members of the London Stock Exchange Group plc group. STRS Ohio Investment Choices are not sponsored, endorsed, sold, or promoted by Russell and Russell makes no representation, warranty or guarantee regarding the use of the Russell Indices or the advisability of investing in the investment choices.

The STRS Russell Midcap Index Choice is an investment choice that is intended to closely match the return of the Russell Midcap® Index, before fees. The Index is composed of approximately 800 stocks chosen for market size, liquidity and industry group representation. The return consists of capital appreciation plus dividend yield. This choice's share price and total return should be expected to fluctuate within a wide range, like the performance of the overall stock market.

# Annual Asset Management Fee

The total annual fee for STRS Russell Midcap Index Choice is 0.07%.

# Performance

The STRS Russell Midcap Index Choice fell –17.36%, after fees, for the fiscal year ending June 30, 2022. This return trailed the Russell Midcap Index, which fell –17.30% over the same period. While the STRS Russell Midcap Index Choice seeks to closely track the performance of its corresponding index, actual performance will differ because the index does not incur management fees.

# Sector Weightings as of June 30, 2022

Sector	Weight
Information Technology	16.43%
Industrials	14.59%
Financials	13.56%
Consumer Discretionary	12.43%
Healthcare	10.81%
Real Estate	8.61%
Materials	6.25%
Utilities	5.97%
Energy	4.79%
Consumer Staples	3.77%
Communication Services	2.79%
Total Russell Midcap® Index	100.00%

# **Market Drivers**

Stocks rose in first half of the fiscal year, buoyed by economic stimulus in the United States and continued easing of COVID-19 restrictions. High inflation, especially in food and energy, led the Federal Reserve to take action to tighten monetary policy. Valuation multiples contracted sharply in the second half of the fiscal year, especially the multiples of highly valued mid-cap growth stocks, as the Federal Reserve began raising interest rates. Investors exited mid-cap stocks for the safety of more defensive investments.

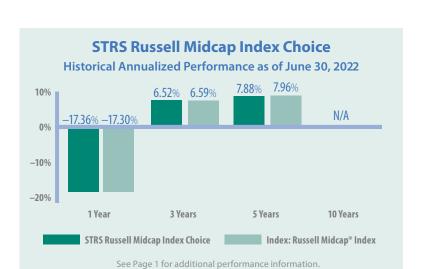
# Top 10 Holdings as of June 30, 2022

Top 10 Holdings	% of Total Investment Choice
Synopsys Inc. (SNPS)	0.51%
Autozone Inc. (AZO)	0.47%
O'Reilly Automotive Inc. (ORLY)	0.45%
Realty Income Corp (O)	0.45%
Cadence Design Systems (CDNS)	0.45%
IQVIA Holdings Inc. (IQV)	0.45%
Phillips 66 (PSX)	0.43%
Corteva (CTVA)	0.43%
Xcel Energy Inc. (XEL)	0.42%
Williams Companies Inc. (WMB)	0.42%

Top 10 holdings represent 4.48% of the total index.

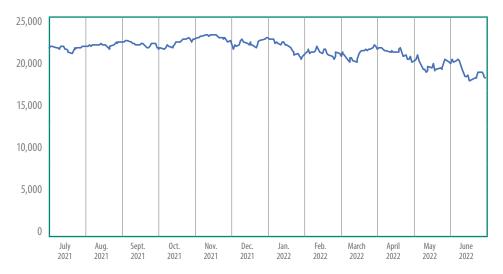
# Index Statistics as of June 30, 2022

Total Market Value	\$9.14 Trillion
Largest Company Market Value	\$46.50 Billion
Weighted Average Market Value	\$19.57 Billion
Mean Market Value	\$12.29 Billion
Smallest Company Market Value	\$1.87 Billion
Median Share Price	\$60.96
P/E Ratio	15.80
Dividend Yield	1.69%



# **Russell Midcap® Index Values**

For Fiscal Year 2022



Note: Figures in the chart above are based on Russell non-intraday values utilized for reporting in Russell index products and services. The Russell U.S. equity index values shown on most financial sites and in the media began at a later date and at a different beginning value than the original set of values shown above. While the STRS Russell Midcap Index Choice seeks to closely match the performance of the Russell Midcap® Index, its actual performance will differ because the Index does not incur management fees.

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The STRS Russell 2000 Index Choice is intended to closely match the performance of the Russell 2000® Index.

As the name implies, the Russell 2000® Index is comprised of approximately 2,000 U.S. companies selected for their small market capitalization and industry classifications. The index is reevaluated annually to remove larger companies that may distort the performance characteristics of a small-cap fund.

The STRS Russell 2000 Index Choice is a small-cap choice designed to diversify investment holdings and is intended to be a long-term investment option.

Wilshire Associates suggests holding a small-cap equity choice as part of a well-diversified investment portfolio. Keeping in mind that each investor's risk tolerance is different, the amount of small-cap holdings in an investor's portfolio should be based on risk tolerance and investment goals.

# **Annual Asset Management Fee**

The total annual fee for STRS Russell 2000 Index Choice is 0.07%.

# Top 10 Holdings as of June 30, 2022

Top 10 Holdings	% of Total Investment Choice
Biohaven Pharmaceutical (BHVN)	0.40%
Shockwave Medical (SWAV)	0.30%
Chart Industries Inc. (GTLS)	0.27%
Halozyme Therapeutics (HALO)	0.26%
Sailpoint Technologies (SAIL)	0.26%
Southstate Corp. (SSB)	0.25%
Southwest Gas Holdings (SWX)	0.25%
STAG Industrial Inc. (STAG)	0.24%
Agree Realty Corp. (ADC)	0.24%
RBC Bearings Inc. (RBC)	0.23%

Top 10 holdings represent 2.70% of the total index.

# **Performance**

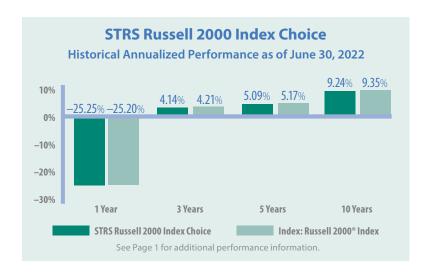
The STRS Russell 2000 Index Choice fell -25.25%, after fees, for the fiscal year ending June 30, 2022. The Russell 2000® Index Choice fell –25.20% over the same period. While the STRS Russell 2000 Index Choice seeks to closely track the performance of its corresponding index, actual performance will differ because the index does not incur management

# **Market Drivers**

Stocks rose in first half of the fiscal year, buoyed by economic stimulus in the United States and continued easing of COVID-19 restrictions. High inflation, especially in food and energy, led the Federal Reserve to take action to tighten monetary policy. Valuation multiples contracted sharply in the second half of the fiscal year, especially the multiples of highly valued small-cap growth stocks, as the Federal Reserve began raising interest rates. Investors exited smallcap stocks for the safety of more defensive investments.

# Sector Weightings as of June 30, 2022

Secto	r			Wei	ight	
Fi	nancials			 17.	.08%	
Н	eathcare			 16.	90%	
Ir	dustrials			 15.	.04%	
Ir	formation	Technolo	уду	 13.	76%	
C	onsumer D	iscretion	ary	 10.	.99%	
R	eal Estate			 7.	34%	
E	nergy			 5.	.57%	
N	aterials			 4.	13%	
C	onsumer S	taples		 3.	77%	
U	tilities			 3.	.56%	
C	ommunica	tion Serv	ices	 1.	86%	
Total R	ussell 2000	)® Index		100.	00%	

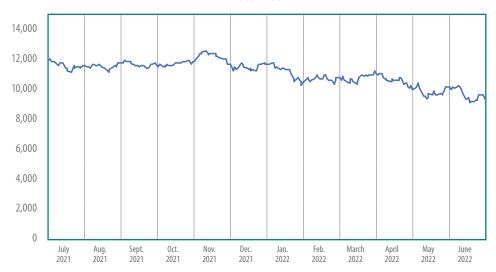


# Index Statistics as of June 30, 2022

Total Market Value......\$2.26 Trillion Largest Company Market Value ......\$10.28 Billion Weighted Average Market Value ......\$2.55 Billion Mean Market Value ......\$1.38 Billion Smallest Company Market Value ......\$25.40 Million Median Share Price ......\$18.56 Dividend Yield ......1.46%

# Russell 2000<sup>®</sup> Index Values

#### For Fiscal Year 2022



Note: Figures in the chart above are based on Russell non-intraday values utilized for reporting in Russell index products and services. The Russell U.S. equity index values shown on most financial sites and in the media began at a later date and at a different beginning value than the original set of values shown above. While the STRS Russell 2000 Index Choice seeks to closely match the performance of the Russell 2000® Index, its actual performance will differ because the Index does not incur management fees.

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# STRS REIT Index Choice **Real Estate**

#### Structure

The STRS REIT Index Choice is intended to closely match the performance of the FTSE NAREIT Equity REITs Index, before fees.

# Annual Asset Management Fee

The total annual fee for STRS REIT Index Choice is 0.10%.

# **Performance**

The STRS REIT Index Choice provided after-fee returns of -6.37%, closely tracking the FTSE NAREIT Equity REITs Index return of -6.27%. Fiscal year 2022 was a bifurcated year for REITs and REIT returns. The FTSE NAREIT Equity REIT index returned +17.45% for the first six months of the fiscal year. However, as interest rates continued to rise, the last six months of the fiscal year showed a -20.20% index return.

# **Market Drivers**

Inflation across the globe accelerated throughout fiscal year 2022, which required an aggressive response from the Federal Reserve and central banks globally. The global tightening of financial conditions can be most easily seen by the rise of the US 10-year treasury interest rate. The 10-year treasury yield rose from 1.47% on June 30, 2021, all the way to 2.98% on June 30, 2022. With elevated global growth and interest rates starting at a low-level, REIT returns for the first six months of fiscal year 2022 were a strong +17.45% (FTSE NAREIT Index) led by economically sensitive sectors such as storage, industrial warehouses and apartments. However, as fiscal year 2022 evolved, the rise in interest rates globally put pressure on REIT multiples, REIT balance sheets and on net asset values as capitalization rates rose. The latter six months of fiscal year 2022 led to REIT returns of -20.20%. The strongest sector performers in this risk off period were "defensive" oriented sectors: healthcare, and triple-net REITs.

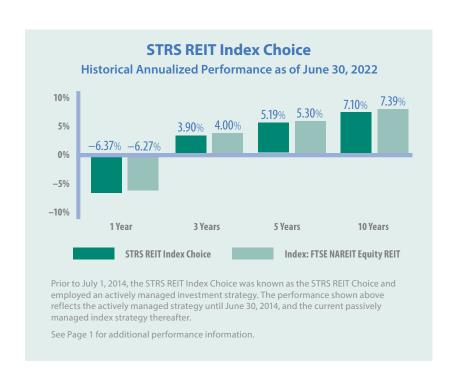
# Sector Weightings as of June 30, 2022



# Top 10 Holdings as of June 30, 2022

Top 10 Holdings	% of Total Index
Prologis Inc. (PLD)	8.30%
Equinix Inc. (EQIX)	5.70%
Public Storage (PSA)	4.66%
Realty Income Corp (0)	3.92%
Welltower Inc. (WELL)	3.57%
Digital Realty Trust Inc. (DLR)	3.52%
Simon Property Group Inc. (SPG)	2.95%
VICI Properties (VICI)	2.73%
AvalonBay Communities Inc. (AVB)	2.59%
Equity Residential (EQR)	2.55%

Top 10 holdings represent 40.49% of the total investment choice.



This investment choice is intended to closely match the return of the Morgan Stanley Capital International (MSCI) World ex USA Index, before fees. The MSCI World ex USA Index is composed of approximately 1,000 constituent stocks in the index. The total investment return of the index is comprised of capital appreciation and dividend income.

The STRS MSCI World ex USA Index Choice is intended as a long-term investment choice due to higher volatility of returns of international stocks over short-term periods. Risks of international investment include, but are not limited to, currency risk, country risk and different security exchange regulations.

# Annual Asset Management Fee

The total annual fee for STRS MSCI World ex USA Index Choice is 0.10%.

# **Performance**

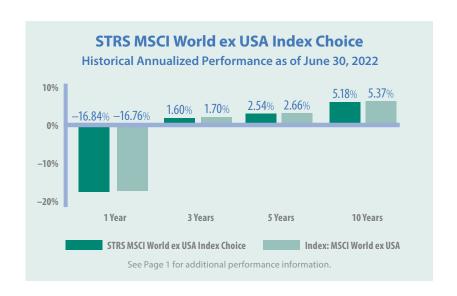
The STRS MSCI World ex USA Index Choice returned -16.84%, after fees, for the fiscal year ending June 30, 2022. While the STRS MSCI World ex USA Index Choice seeks to closely match the performance of its corresponding index, its actual performance will differ because the index does not incur management fees.

#### **Market Drivers**

This section details the market drivers of the MSCI World ex USA Index, which is the benchmark for the STRS MSCI World ex USA Index Choice. Equity returns were negatively impacted by contracting valuation multiples as markets began to discount the impact from higher interest rates required to address elevated inflation. Inflation pressures intensified after the Russian invasion of Ukraine. Several countries in Europe had large negative returns as investors weighed the possibility of energy supply dislocation due to reduced natural gas imports coming from Russia. However, some European countries had returns that were less severely impacted if a significant share of their equity markets included commodity exporters. The best performing countries in fiscal 2022 were led by Portugal (+2.3%), Norway (-0.2%) and United Kingdom (-4.0%). The three countries with the lowest returns were Ireland (-35.1%), Germany (-30.6%) and Sweden (-30.1%). The U.S. dollar strengthened overall against developed market currencies, so the returns of dollar-based investors such as STRS Ohio were negatively impacted in fiscal 2022.

# Country/Region Weightings as of June 30, 2022

Country/Region	% of Index
Japan	19.69%
United Kingdom	14.10%
Canada	11.50%
France	9.91%
Switzerland	9.27%
Australia	6.93%
Germany	6.88%
Netherlands	3.64%
Sweden	2.98%
Hong Kong	2.96%
Denmark	2.44%
Spain	2.20%
Italy	2.02%
Singapore	1.29%
Belgium	0.89%
Finland	0.88%
Norway	0.74%
Israel	0.67%
Ireland	0.49%
Portugal	0.21%
Austria	0.16%
New Zealand	0.16%
Total MSCI World ex USA Index	100.00%



# **MSCI World ex USA Index Values**

For Fiscal Year 2022



The MSCI World ex USA Index is a trademark of MSCI Inc. The STRS MSCI World ex USA Index Choice is not sponsored, endorsed or promoted by MSCI, and MSCI bears no liability with respect to any investment choice or any index on which the investment choice is based.

This investment choice is intended to closely match the return of the Morgan Stanley Capital International (MSCI) ACWI ex USA Index, before fees. The MSCI ACWI ex USA Index is based on the share price of approximately 1,900 companies listed on stock exchanges in 22 developed and 27 emerging countries/regions. The total investment return of the index is comprised of capital appreciation and dividend yield.

The STRS MSCI ACWI ex USA Index Choice is intended as a long-term investment choice due to higher volatility of returns of international stocks over short-term periods. Risks of international investment include, but are not limited to, stock market risk, country risk and currency risk.

# **Annual Asset Management Fee**

The total annual fee for STRS MSCI ACWI ex USA Index Choice is 0.14%.

# **Performance**

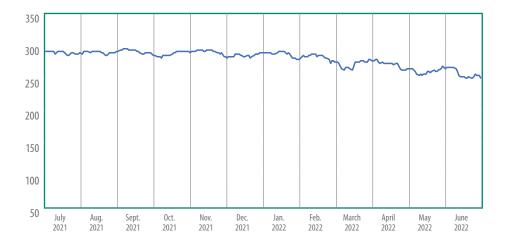
The STRS MSCI ACWI ex USA Index Choice returned -19.53%, after fees, for the fiscal year ending June 30, 2022. While the STRS MSCI ACWI ex USA Index Choice seeks to closely match the performance of its corresponding index, its actual performance will differ because the index does not incur management fees.

# **Market Drivers**

This section details the market drivers of the MSCI ACWI ex USA Index, which is the benchmark for the STRS MSCI ACWI ex USA Index Choice. Equity returns were negatively impacted by contracting valuation multiples as markets began to discount the impact from higher interest rates required to address elevated inflation. Inflation pressures intensified after the Russian invasion of Ukraine. The zero-COVID-19 policy in China also dampened economic activity in China and other countries reliant on trade with China. The emerging markets overall had worse performance than the developed markets, but several emerging countries with energy-exporting stocks did well. The best performing countries in fiscal 2022 were Czech Republic (+31.0%) Kuwait (+22.8%) and Qatar (+17.4%). Russia had the worst return as the country was excluded from the MSCI ACWI ex USA Index at a zero value in March 2022. The other three weakest markets were Hungary (-42.2%), South Korea (-38.2%) and Ireland (-35.1%). The U.S. dollar strengthened overall against international currencies, so the returns of dollar-based investors such as STRS Ohio were negatively impacted in fiscal 2022.

# **MSCI ACWI ex USA Index Values**

For Fiscal Year 2022

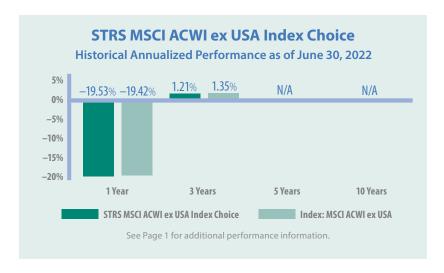


# Country/Region Weightings as of June 30, 2022

Country/Region	% of Index
Japan	,
China	
United Kingdom	
Canada	
France	
Switzerland	
Australia	4.87%
Germany	4.84%
Taiwan	4.31%
India	3.78%
Korea	3.35%
Netherlands	2.55%
Sweden	2.09%
Hong Kong	2.08%
Denmark	1.71%
Spain	1.55%
Brazil	1.44%
Italy	1.42%
Saudi Arabia	1.27%
South Africa	1.05%
Singapore	0.91%
Mexico	0.63%
Belgium	0.62%

	01 61 1
Country/Region	% of Index
Finland	0.62%
Thailand	0.56%
Indonesia	0.54%
Norway	0.52%
Israel	
Malaysia	0.43%
United Arab Emirates	0.38%
Ireland	0.35%
Qatar	0.31%
Kuwait	0.24%
Philippines	0.21%
Poland	0.18%
Chile	0.15%
Portugal	0.14%
Austria	0.11%
New Zealand	0.11%
Turkey	0.08%
Greece	0.07%
Peru	0.07%
Hungary	0.05%
Czech Republic	
Colombia	
Egypt	0.02%

Total MSCI ACWI ex USA Index 100.00%



The MSCI ACWI ex USA Index is a trademark of MSCI Inc. The STRS MSCI ACWI ex USA Index Choice is not sponsored, endorsed or promoted by MSCI, and MSCI bears no liability with respect to any investment choice or any index on which the investment choice is based.

# STRS Target Choice Options

# Structure

These investment options target a year in the future that would roughly match a participant's retirement date. As the target date approaches, the more conservative the investment mix becomes — moving from a substantial allocation to stocks in the early years (seeking greater growth opportunities) toward a more balanced mix of stocks and bonds (in an effort to reduce volatility) as the target date nears. When the Target Choice reaches its target date, participants who are not going to annuitize the account for retirement must transfer the accumulated value to other STRS Ohio investment options. If no other option is chosen, the accumulated value of the choice automatically rolls into the Target Choice option that falls immediately before the participant's 60th birthday.

# **Annual Asset** Management Fee

The total annual fee for STRS Target Choice options is 0.10%.

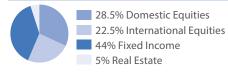
# **Performance**

Target Choice options consist of blends of other STRS Ohio investment choices representing domestic and international equities, fixed income and real estate investments. Performance and market drivers for these other choices can be found on the following pages:

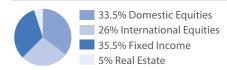
- Bonds see the STRS Bloomberg U.S. Universal Bond Index Choice on Pages 8–9.
- Domestic equities The domestic equities component is the Russell 3000<sup>®</sup> Index. The Russell 3000<sup>®</sup> Index is comprised of approximately 90% of the Russell 1000® Index and approximately 10% of the Russell 2000® Index. The Russell 1000<sup>®</sup> Index characteristics are shown on Pages 12–13 and the Russell 2000® Index characteristics are shown on Pages 16-17.
- Real estate see the STRS REIT Index Choice on Pages 18-19.
- International equities see the STRS MSCI World ex USA Index Choice on Pages 20-21.

# Compositions as of July 1, 2022

# STRS Target Choice 2025



# STRS Target Choice 2030



# STRS Target Choice 2035



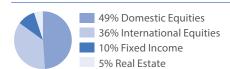
# STRS Target Choice 2040



# STRS Target Choice 2045



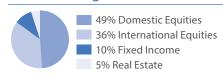
# STRS Target Choice 2050

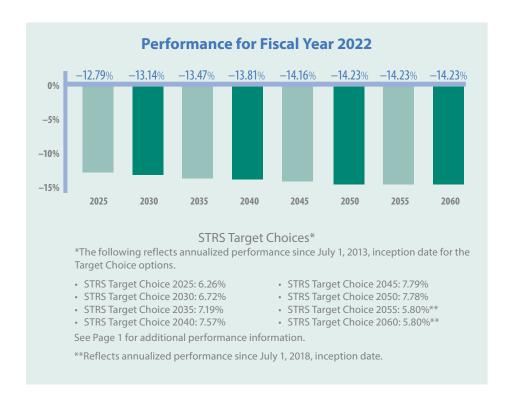


# STRS Target Choice 2055



# STRS Target Choice 2060





#### benchmark

A standard, usually an unmanaged index, used for comparative purposes in assessing a fund's performance.

# **Bloomberg U.S. Universal Bond Index**

The Bloomberg U.S. Universal Bond Index measures publicly issued U.S. dollar-denominated, fixed-rate taxable bonds on a total return basis. It consists of approximately 14,000 different issues and includes fixed-income securities that are rated either investment grade or below investment grade. Municipal debt, private placements and nondollar issues are excluded from the index.

#### hond

A debt instrument issued by a company, city or state, or the U.S. government or its agencies, with a promise to pay regular interest and return the principal on a specified date.

#### bond credit rating

Independent evaluation of a bond's credit-worthiness. This measurement is usually calculated through an index compiled by companies such as Standard & Poor's (S&P) or Moody's. Bonds with a credit rating of BBB or higher by S&P or Baa or higher by Moody's are generally considered investment grade.

#### book/price ratio

The current book value of a stock divided by its current market price.

#### book value

The net worth or liquidating value of a business. This is calculated by subtracting all liabilities, including debt and preferred stocks, from total assets.

# bottom-up approach

The search for outstanding performance of individual stocks before considering the impact of economic trends. Such companies may be identified from research reports, stock screens or personal knowledge of the products and services.

# business day/valuation day

A day when market exchanges are open for business.

#### capital appreciation

The increase in the share price and value of an investment.

#### diversification

The strategy of investing in a wide range of companies, industries or investment products to reduce the risk if an individual company or sector suffers losses.

# dividend yield

The current or estimated annual dividend divided by the market price per share of a security.

#### **Economic sectors**

#### **Communication Services**

Contains companies involved in communication services, including wireless, cellular and high-bandwidth networks.

#### **Consumer Discretionary**

Includes industries likely to be most sensitive to economic cycles, including automotive, apparel, household durable goods, hotels, restaurants and consumer retailing.

# **Consumer Staples**

This sector includes industries that are less sensitive to economic cycles, including food, beverage and tobacco manufacturers, producers of nondurable household goods, and food and drug retailing companies.

#### Energy

Contains companies involved in producing, marketing or refining gas and oil products.

#### **Financials**

Includes companies engaged in finance, banking, investment banking and brokerage, insurance, corporate lending and real estate.

#### Healthcare

Includes manufacturers of health care equipment and supplies, providers of health care services and producers of pharmaceuticals.

#### **Industrials**

This sector includes companies involved in construction, engineering and building, aerospace and defense, industrial equipment and machinery, and transportation services and infrastructure.

# **Information Technology**

Contains companies primarily involved in technology software and services, hardware and equipment, and manufacturers of semiconductors.

# **Materials**

Includes companies that manufacture chemicals; construction materials; glass; paper products; and metals, minerals and mining companies.

#### **Utilities**

Includes gas, water and electric utilities, as well as companies that operate as independent producers or distributors of power.

#### float

The number of shares of a corporation that are outstanding and available for trading by the public. A small float means the stock will be volatile, since a large order to buy or sell shares can influence the stock's price dramatically. A larger float means the stock will be less volatile.

#### index choice

An investment choice designed to closely match performance and composition of a particular market benchmark, such as the Russell 1000® Index.

#### interest rate

The rate of interest charged for the use of money, usually expressed as an annual rate.

# liquidity

The ability to easily turn assets into cash. An investor should be able to sell a liquid asset quickly with little effect on the price. Liquidity is a central objective of money market funds.

#### market capitalization (large-cap, mid-cap, small-cap)

The market price of a company's shares multiplied by the number of shares outstanding. Large capitalization (largecap) companies generally have more than \$5 billion in market capitalization; mid-cap companies between \$1.5 billion and \$5 billion; and small-cap companies less than \$1.5 billion. These capitalization figures may vary depending upon the index being used and/or the guidelines used by the portfolio manager.

#### market value

The price at which a security is trading and could presumably be purchased or sold. This also refers to what investors believe a firm is worth, calculated by multiplying the number of shares outstanding by the current market price of a firm's

## market value-mean

The market value of a group of securities computed by calculating the arithmetic average of a sample.

# market value-weighted

The market value of a group of securities computed by calculating a weighted average of the returns on each security in the group, where the weights are proportional to outstanding market value.

# maturity

The final date on which the payment of a debt instrument (e.g., bonds, notes, repurchase agreements) becomes due and payable. Short-term bonds generally have maturities of up to five years, intermediate-term bonds between five and 15 years, and long-term bonds more than 15 years.

#### **MSCI ACWI ex USA Index**

The MSCI (Morgan Stanley Capital International) ACWI (All Country World Index) ex USA Index captures large- and mid-cap representation across 22 developed markets and 26 emerging market countries with approximately 1,900 foreign companies. The index covers about 85% of the global opportunity set outside of the United States.

#### **MSCI World ex USA Index**

The MSCI (Morgan Stanley Capital International) World ex USA Index is a free float-adjusted market capitalization index of approximately 1,000 foreign companies that is designed to measure developed market equity performance, excluding the United States.

#### net asset value (NAV)

The market value of one unit of an investment option on any given day. It is determined by dividing an investment option's total net assets by the number of units outstanding.

#### price/book ratio

The current market price of a stock divided by its book value or net asset value.

#### price/earnings ratio (P/E)

The current market price of a stock divided by its earnings per share. Also known as the "multiple," the price-toearnings ratio gives investors an idea of how much they are paying for a company's earning power and is a useful tool for evaluating the costs of different securities.

#### price/sales ratio

The current market price of a stock divided by total sales.

# Risk

#### country risk

The possibility that world events, such as political instability, financial troubles or natural disasters, will adversely affect the value of securities issued by companies in foreign countries.

#### credit risk

A loss in value due to a bond issuer's failure to make timely interest and principal payments or adverse perception of the issuer's ability to make such payment.

The possibility an investment's value will change due to changes in currency exchange rates.

The possibility income will decline because of falling interest rates.

# industry concentration risk

Investments concentrated heavily in specific industries could trail the overall market.

# Glossary of Terms

#### interest rate risk

The risk that values will fall with changes in interest

# investment style risk

The chance that returns from a designated investment style will trail returns from the overall stock market.

#### manager risk

The possibility that poor security selection will cause underperformance relative to the benchmark.

# purchasing power risk

The possibility principal and interest won't be worth as much in the future because of erosion in value due to inflation.

#### stock market risk

The possibility that stocks will experience losses due to factors that affect the overall performance of the financial markets.

#### risk tolerance

How sensitive you are to market losses.

#### **Russell Indices**

These indices are used as standards for measuring U.S. stock market performance. An example would be the Russell 3000°, which is the most widely used broad market index for U.S. institutional investors. It is comprised of the largest 3,000 U.S. stocks, representing 98% of investable U.S. equity.

#### stock

An ownership share in a corporation. Each share of stock is a proportional stake in the corporation's assets and profits, and purchasing a stock should be thought of as owning a proportional share of the successes and failures of that business.

#### top-down approach

The method in which an investor first looks at trends in the general economy, selects attractive industries and then companies in those industries that should benefit from those trends.

#### tracking error

A portfolio volatility measurement that compares the variation (measured by the standard deviation) of the difference between the performance of the benchmark and a particular fund.

#### **Treasury securities**

Negotiable debt obligations of the U.S. government, secured by its full faith and credit. The income from Treasury securities is exempt from state and local income taxes, but not from federal income taxes. There are three types

of Treasuries: bills (maturity of three–12 months), notes (maturity of one-10 years) and bonds (maturity of 10-30 years).

#### volatility

The general variability of a portfolio's value resulting from price fluctuations of its investments. In most cases, the more diversified a portfolio is, the less volatile it will be.

#### yield

The annual rate of return on an investment, as paid in dividends or interest. It is expressed as a percentage obtained by dividing the market price for a stock or bond into the dividend or interest paid in the preceding 12 months.

STRS Ohio investment choices are not publicly traded mutual funds. They are available only through participation in the STRS Ohio Defined Contribution and Combined Plans.

# **Asset Management Fee Example:**

Members who participate in the STRS Ohio Defined Contribution or Combined Plan are charged asset management fees annually. The following table provides an example of the annual fees you would incur on a hypothetical investment of \$1,000 in each STRS Ohio investment choice. The fees are taken from the net asset value of each choice each valuation day. For the purpose of this example, to calculate annual fees, the total fee is multiplied by the year-end account balance in that option.

The table assumes (a) continuation into future years of the applicable STRS Ohio fee; (b) a 5% annual return; and (c) disbursement at each time period shown. This example should not be considered a representation of past or future expenses. Actual expenses may be greater or lesser than shown, depending upon factors such as actual performance.

	1 Year	3 Years	5 Years	10 Years
STRS Money Market Choice	\$1	\$3	\$6	\$13
STRS Bloomberg U.S. Universal Bond Index Choice	\$1	\$2	\$4	\$9
STRS Large-Cap Core Choice	\$3	\$10	\$17	\$40
STRS Russell 1000® Index Choice	\$1	\$2	\$3	\$7
STRS Russell Midcap® Index Choice	\$1	\$2	\$4	\$9
STRS Russell 2000® Index Choice	\$1	\$2	\$4	\$9
STRS MSCI World ex USA Index Choice	\$1	\$3	\$6	\$13
STRS MSCI ACWI ex USA Index Choice	\$1	\$5	\$8	\$18
STRS REIT Index Choice	\$1	\$3	\$6	\$13
Target Choice Options	\$1	\$3	\$6	\$13

#### **Account Fee:**

In addition to the fees listed above, a quarterly account fee of \$10 is charged to each participant in a Defined Contribution or Combined Plan. The fee is taken proportionately from the member's account balance on the first business day of the quarter.

# **Maintenance Fee for Inactive Accounts Less Than** \$5,000:

Members who have not contributed to the Defined Contribution Plan or the defined contribution portion of the Combined Plan for a period of 120 consecutive days are deemed inactive. Inactive members with account balances of less than \$5,000 are assessed a \$10 monthly fee taken proportionately from the balance of their account. If this fee is charged, the \$10 quarterly account fee is waived.

#### **Contributions:**

The State Teachers Retirement System of Ohio (STRS Ohio) is a statewide pension plan for Ohio educators that operates by the authority of the Ohio General Assembly, and benefits are provided under Chapter 3307 of the Ohio Revised Code. Employers submit member and employer contributions to STRS Ohio after each payroll. For members enrolled in the STRS Ohio Defined Contribution or Combined Plan, member and employer contributions are deposited in each member's account according to plan design and invested according to the member's current contribution investment within five days of receipt.

# **Investment Choice Composition:**

The top 10 holdings, asset allocation, major market sectors and geographical diversification included for some investment choices are presented to illustrate examples of the diversity of the available choices. The illustrations may not be representative of the choices' current or future investments. The figures presented are as of date shown and may change at any time.

#### Value of Assets/Account Value:

The performance of the investment choices made by members is used upon distribution to determine funds accumulated. Each investment option is valued each valuation day. Each option is determined by unit values. The unit value reflects performance and expenses. The account value is based on the unit value, at the end of each valuation day and the number of accumulated units of each investment option. STRS Ohio will use market quotations, amortized cost or "fair value" to determine the unit value of each investment option. Investment return and principal value will fluctuate so that a member's units, when redeemed, may be worth more or less than their original cost.

#### **Internet Capabilities:**

Nationwide Retirement Solutions (NRS) will maintain an Internet website accessible through www.nrsstrsoh.org for the benefit of STRS Ohio members participating in the STRS Ohio Defined Contribution Plan or the defined contribution portion of the Combined Plan. Services and information available to participants include access to account balance, current contribution allocation, investment option information and education materials. Members will also be able to change future contribution allocations and perform exchanges among available investment choices. Written confirmations will normally be mailed to members within two business days of conducting transactions. Members should verify the accuracy of Internet transactions immediately upon receipt of the confirmation. While the website is typically

# Disclosures

available 24 hours a day, seven days a week for these services, NRS cannot guarantee availability. NRS is not responsible for any gain or loss attributable to these website services being unavailable. Members must accept the NRS Electronic Service Agreement in order to use the site.

# **Transfers and Allocation Changes Among Investment Choices:**

Members may conduct exchanges daily by phone or via the Internet unless exchange restrictions apply. Verbal instructions will be accepted upon verification of member identity and will be recorded to verify accuracy.

Exchange instructions completed by 4 p.m. Eastern Standard Time on a business day are posted to a member's account at the closing price that day or, if the day of the exchange is not a business day, at the closing price on the next business day.

Members may change their future contribution allocation and make exchanges among available investment choices without charge.

Members are permitted 20 trade events each calendar year. A trade event is defined as any trade or combination of trades occurring on a given valuation day. NRS also provides these additional safeguards to protect STRS Ohio from illegal lateday trading and improper market-timing trading.

- If six or more trade events occur in one calendar quarter, NRS will notify the participant by U.S. mail that he or she has been identified as engaging in potentially harmful trading practices.
- Following this notification, if more than 11 trade events occur in two consecutive calendar quarters, NRS will require the participant to submit all future trade requests in paper form only via regular U.S. mail for the remainder of the calendar year.
- If 20 trade events occur in a calendar year, NRS will require the participant to submit all future trade requests in paper form via U.S. mail for the remainder of the calendar year.

# **Member Reporting:**

Members in the Defined Contribution Plan and the Combined Plan will receive a quarterly statement of their account. Statements are mailed to members by the 20th business day of the month following the end of a quarter. Statements include beginning and ending balances, deposits, gains and losses, transactions, fees, contribution election and asset allocation information. Contributions posted to your account after the close of a quarter will not appear on that quarter's statement. Each fall, members in the Combined Plan will also receive an Annual Statement of Account from STRS Ohio that includes their projected retirement, survivor benefit and

disability benefit assuming the member meets or will meet the eligibility requirements for the defined benefit portion of the account. A record of total service credit and defined benefit account withdrawal value is also provided. Please review all quarterly statements carefully and inform NRS of any discrepancies within 120 days of the close of the calendar quarter in which the discrepancy occurs. Failure to do so may result in the inability to adjust your account.

#### **Disbursements:**

In accordance with state law, disbursements to members may be made only if the member has terminated STRS Ohio contributing service. Additionally, disbursements may be made only at the times and under the circumstances allowable by the Internal Revenue Code. The Defined Contribution and the Combined Plans do not allow loans or hardship withdrawals.

Members may take payment from the Defined Contribution Plan or the defined contribution portion of the Combined Plan through a rollover, a lump-sum withdrawal or a variety of annuities. Units will be redeemed from investment choices on the business day after processing of the payment request is complete. Disbursements can be sent to the member or to the member's financial institution. Members may request additional information or forms for disbursement by calling an STRS Ohio member service representative toll-free at 888-227-7877 or going to www.strsoh.org.

Members who request disbursement should be aware that the unit values of their account will remain subject to changing market conditions pending the receipt and processing of the disbursement.

Members who receive distributions will receive applicable tax statements. Members should file this tax statement with their income tax return. Members should always consult their accountant, lawyer or tax adviser for individual guidance.

#### **Inability to Conduct Business:**

NRS is available to execute transactions 24 hours a day, seven days a week through its Internet website during normal working conditions. Although NRS has a comprehensive contingency plan for both power failures and phone service interruption, abnormal circumstances could occur due to events such as severe weather conditions, natural disasters or inevitable accidents such that NRS may not be able to execute investment transactions. During this time of emergency, NRS will strive to restore normal business functions in a timely manner.





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