



**2020**

STATE TEACHERS RETIREMENT SYSTEM OF OHIO  
**Defined Contribution Investments**  
**ANNUAL FINANCIAL REPORT**

Fiscal Year Ending June 30, 2020



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**STATE TEACHERS  
RETIREMENT SYSTEM  
OF OHIO**

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## **April 2021**

The State Teachers Retirement Board and the associates of STRS Ohio are pleased to present our *Defined Contribution Investments Annual Financial Report* for fiscal year 2020. This report contains investment information and results from July 1, 2019–June 30, 2020, for STRS Ohio’s defined contribution account investment choices.

Fiscal year 2020 was a year like no other, with investment performance strongly impacted by the global COVID-19 pandemic. Domestic equity returns rallied late in the fiscal year to post positive gains, but international returns did not quite make it back to positive territory. Accommodative fiscal policy helped boost bond returns.

At fiscal year-end, total assets for the Defined Contribution Plan and the defined contribution portion of the Combined Plan totaled slightly above \$1.7 billion. 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 Financial 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 Disclosures Section includes key rules, concepts and definitions.

As you plan your financial future, we hope you take full advantage of the resources that STRS Ohio and Nationwide Retirement Solutions provide. We at STRS Ohio look forward to working with you throughout your career and partnering with you in helping to build retirement security.

A handwritten signature in blue ink that reads "Rita J. Walters".

**Rita J. Walters**  
**Chair, State Teachers Retirement Board**

A handwritten signature in blue ink that reads "William J. Neville".

**William J. Neville**  
**Executive Director**

# Investment Performance Report as of June 30, 2020

## Annualized Rates of Return



### VARIABLE INVESTMENT CHOICES

Cash	1 Year	3 Years	5 Years	10 Years		
<b>STRS Money Market Choice<sup>B</sup></b>	1.27%	1.57%	1.10%	0.59%		
Index: 90-day U.S. Treasury bill	1.63%	1.77%	1.19%	0.64%		
Bonds	1 Year	3 Years	5 Years	10 Years		
<b>STRS Bloomberg Barclays U.S. Universal Bond Index Choice<sup>AB</sup></b>	7.80%	5.05%	4.31%	3.98%		
Index: Bloomberg Barclays U.S. Universal Index	7.88%	5.15%	4.42%	4.12%		
Large-Cap	1 Year	3 Years	5 Years	10 Years		
<b>STRS Large-Cap Core Choice<sup>B</sup></b>	6.41%	7.91%	8.26%	11.59%		
Index: Russell 1000 <sup>®</sup> Index	7.48%	10.64%	10.48%	13.97%		
<b>STRS Russell 1000<sup>®</sup> Index Choice<sup>B</sup></b>	7.43%	10.57%	10.38%	13.84%		
Index: Russell 1000 <sup>®</sup> Index	7.48%	10.64%	10.48%	13.97%		
Mid-Cap	1 Year	3 Years	5 Years	10 Years	Since Inception <sup>E</sup>	Inception Date
<b>STRS Russell Midcap<sup>®</sup> Index Choice<sup>B</sup></b>	-2.31%	5.71%	6.67%	N/A	9.31%	7/1/2013
Index: Russell Midcap <sup>®</sup> Index	-2.24%	5.79%	6.76%	N/A	9.41%	
Small-Cap	1 Year	3 Years	5 Years	10 Years		
<b>STRS Russell 2000<sup>®</sup> Index Choice<sup>B</sup></b>	-6.69%	1.93%	4.20%	10.36%		
Index: Russell 2000 <sup>®</sup> Index	-6.63%	2.01%	4.29%	10.50%		
International	1 Year	3 Years	5 Years	10 Years		
<b>STRS MSCI World ex USA Index Choice<sup>B</sup></b>	-5.52%	0.71%	1.85%	5.18%		
Index: MSCI World ex USA Index	-5.42%	0.84%	2.01%	5.43%		
<b>STRS MSCI ACWI ex USA Index Choice<sup>B</sup></b>	-4.94%	N/A	N/A	N/A	-1.94%	7/1/2018
Index: MSCI ACWI ex USA	-4.80%	N/A	N/A	N/A	-1.80%	
Specialty/Real Estate	1 Year	3 Years	5 Years	10 Years		
<b>STRS REIT Index Choice<sup>BC</sup></b>	-13.12%	-0.09%	3.93%	8.94%		
Index: FTSE NAREIT Equity REIT	-13.04%	0.03%	4.06%	9.24%		

### TARGET CHOICE OPTIONS

Blends	1 Year	3 Years	5 Years	10 Years	Since Inception <sup>E</sup>	Inception Date
<b>STRS Target Choice 2020<sup>B</sup></b>	4.59%	5.82%	5.76%	N/A	6.72%	7/1/2013
<b>STRS Target Choice 2025<sup>B</sup></b>	4.03%	5.90%	5.94%	N/A	7.05%	7/1/2013
<b>STRS Target Choice 2030<sup>B</sup></b>	3.45%	5.93%	6.08%	N/A	7.34%	7/1/2013
<b>STRS Target Choice 2035<sup>B</sup></b>	2.89%	5.98%	6.22%	N/A	7.64%	7/1/2013
<b>STRS Target Choice 2040<sup>B</sup></b>	2.20%	5.94%	6.31%	N/A	7.82%	7/1/2013
<b>STRS Target Choice 2045<sup>B</sup></b>	1.66%	5.83%	6.29%	N/A	7.81%	7/1/2013
<b>STRS Target Choice 2050<sup>B</sup></b>	1.66%	5.83%	6.29%	N/A	7.81%	7/1/2013
<b>STRS Target Choice 2055<sup>B</sup></b>	1.65%	N/A	N/A	N/A	3.95%	7/1/2018
<b>STRS Target Choice 2060<sup>B</sup></b>	1.65%	N/A	N/A	N/A	3.95%	7/1/2018

### TOTAL GUARANTEED RETURN CHOICE

Balanced	Current Rate	
<b>STRS Total Guaranteed Return Choice 2020<sup>D</sup></b>	4.25%	(For contributions made between July 1, 2015–June 30, 2016 — closed to new investments)
<b>STRS Total Guaranteed Return Choice 2021<sup>D</sup></b>	4.25%	(For contributions made between July 1, 2016–June 30, 2017 — closed to new investments)
<b>STRS Total Guaranteed Return Choice 2022<sup>D</sup></b>	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](http://www.strsoh.org).

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<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.

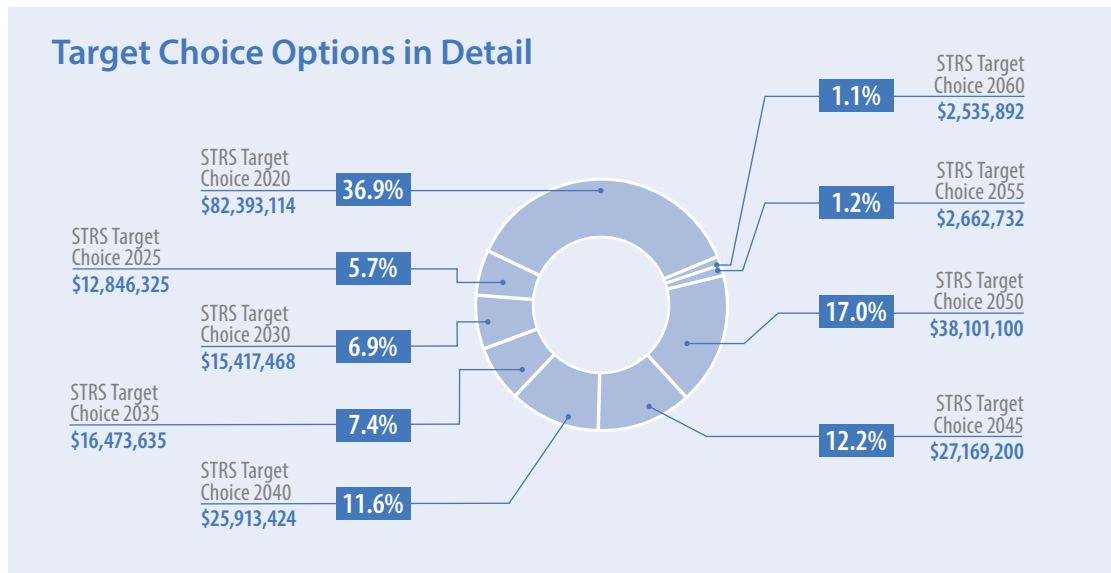
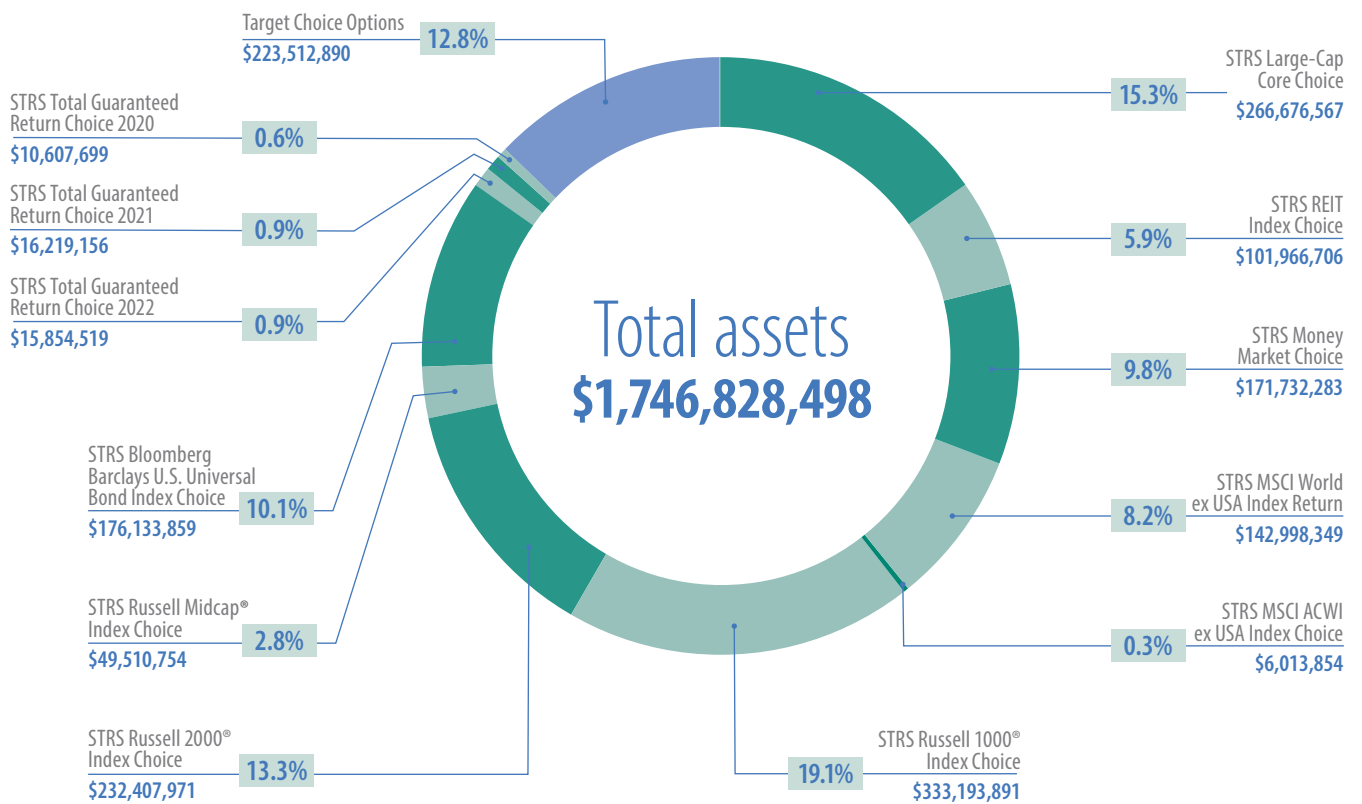
<sup>C</sup> The performance is based on the actively managed STRS REIT Choice until June 30, 2014, and the performance of the STRS REIT Index Choice after that date.

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

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

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.



The chart above displays STRS Ohio's defined contribution holdings and percentage of total assets for the fiscal year ending June 30, 2020. More information on these options can be found in the Performance Section beginning on Page 7.

## Economic Environment

At the beginning of fiscal 2020, the United States set a record for the country's longest economic expansion — surpassing the 10-year growth cycle from 1991–2001. The expansion would last another eight months before COVID-19 pandemic mitigation efforts led to stringent lockdowns and business closures across the country that caused a –5% annualized plunge in real gross domestic product growth (GDP) in the third fiscal quarter and a historic post-World War II –31.4% collapse in the final fiscal quarter. The prior quarterly record holder for the most severe decline was a –10% plummet at the start of 1958 during the 1957–1958 recession, and the worst quarterly economic output performance during the Great Depression was a –38.2% annualized decline in the third calendar quarter of 1932. Nearly 21 million jobs were lost in April alone because of the shutdowns — more than 10 times the previous worst monthly job loss of nearly two million immediately following the end of World War II in September 1945. Before the pandemic, economic activity in January and February had been accelerating following a truce in the China–U.S. trade war that had clouded the economic outlook over the prior year. The pandemic's timing could not have been worse amid an improving economy.

Though the scale of the lost output had been historic, the length of the recession could only be about four months when it is officially determined by the recession dating committee at the National Bureau of Economic Research. That would be much shorter than the Great Depression's 43 months. Post-World War II recessions have averaged 11 months and the shortest recession during that period has been six months in 1980 that preceded a longer and deeper recession just a year later. Therefore,

such a deep and short in duration recession like the one we experienced at the end of fiscal 2020 has not occurred in U.S. economic history and the rebound from the recession could be just as unusual.

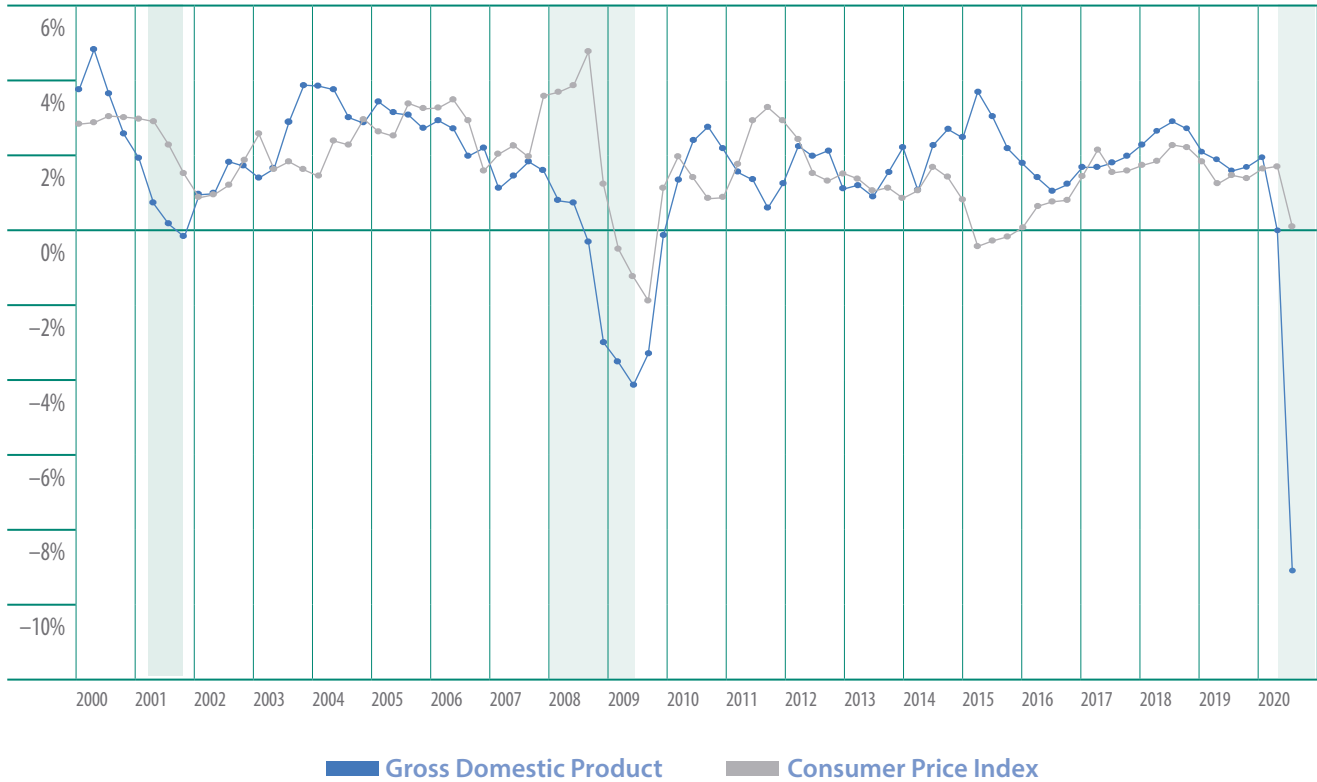
Much of the mitigation efforts by states to control the spread of COVID-19 were eased or lifted from mid-May onward. Along with aggressive federal monetary and fiscal policies that were developed to, first, establish a floor to the economic freefall and, then, ultimately provide stimulus for an economic recovery, many businesses began the process of reopening and rehiring laid-off workers.

U.S. real (inflation-adjusted) gross domestic product plunged –9% in fiscal 2020. Real private domestic final sales growth (a core measure of economic activity that consists of GDP less volatile inventory changes, government spending and foreign trade) fell an even greater –9.7% in fiscal 2020.

Along with the nearly unprecedented decline in economic activity during the final quarter of fiscal 2020, the demand destruction from the lockdowns has significantly slowed U.S. inflation growth. Energy costs, in particular, fell dramatically from a Russia versus Saudi Arabia production battle and the much lower demand from largely closed economies around the world. Consumer prices fell an annualized –5% in March before an even larger –9.1% annualized drop in April. After a further negative monthly growth rate of –0.6% in May, those prices recovered at a 7% annualized rate in the last month of the fiscal year. That left the year-over-year pace at just 0.7% for fiscal 2020. Meanwhile, the broadest measure of inflation in the U.S. economy — the GDP price index — grew only 0.6% in the fiscal year.

## Gross Domestic Product/Consumer Price Index

2000–2020 Year-Over-Year Growth Rates



Note: Shaded areas denote a recession. Sources: Bureau of Economic Analysis, Bureau of Labor Statistics/Haver Analytics

Fiscal 2020 shows a sharp contraction in the GDP resulting from the global pandemic. Consumer prices also declined as a result of the economic shutdown.

In each case, inflation measures grew well below the Federal Reserve’s stated objective of about 2% long-term inflation. The Federal Reserve ended the fiscal year with extraordinarily aggressive policy by providing unmatched liquidity and monetary stimulus for when a recovery is expected to begin in fiscal 2021. From the end of February through the end of the fiscal year, the Federal Reserve enacted at least 34 separate monetary policy actions that were meant to ensure liquidity was readily available for the credit markets and that

its primary monetary policy tools were primed to provide broader stimulus to the economy after its collapse in the second half of fiscal 2020. By some estimates, the combined economic stimulus from the Federal Reserve’s normal policy options and the lending capability provided to it by the federal government will amount to roughly \$2.3 trillion or more. The Federal Reserve quickly returned short-term interest rates to the previous zero lower bound that it used from December 2008 (one year into the Great Recession) through much of December 2015. The real (inflation-

adjusted) federal funds rate also returned to negative territory, making monetary policy highly stimulative to future credit and economic growth. The Federal Reserve also accelerated its quantitative easing programs to keep long-term interest rates lower than they would have otherwise been.

It is clear that monetary policymakers are even more aggressive and proactive in addressing potential liquidity problems during the latest recession than they were during their uncharted actions of the Great Recession and beyond. They will continue to address all shortcomings in monetary policy (excluding negative short-term rates where no consensus exists) that could hold back a recovery.

In addition to the aggressive moves by Federal Reserve monetary policymakers, the federal government has been determined with fiscal policy actions. Four laws, most notably the Coronavirus Aid, Relief & Economic Security Act (CARES Act), accumulating to roughly \$3 trillion in fiscal policy stimulus were passed by Congress and signed by the president from early March through late April. They focused largely on providing some monetary protections for employees and businesses impacted by the government actions to limit economic activity during the battle against the spread of COVID-19. When added to the projections of monetary policy stimulus, the combined roughly \$5.3 trillion in policy actions amounts to about 25% of the size of the U.S. economy — a huge stimulus package that was implemented quickly.

### Low interest rates limit money market returns

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The U.S. Federal Reserve quickly lowered interest rates in response to the economic collapse brought about the shutdowns caused by the global pandemic.

### Fixed-income returns buoyed by low interest rates

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Fiscal 2020 was a strong year for fixed-income market returns. The primary drivers for returns were the decrease in interest rates and interest income earned. Decreasing interest rates, in response to the global pandemic, resulted in price appreciation for the fixed-income asset class. The highest returning sector was U.S. Treasuries (+10.45%).

### Domestic equity returns rise for 11th consecutive year

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Fiscal year 2020 saw extreme volatility in the U.S. equity markets. The early part of the year saw the market rise to new highs on hopes that a trade agreement with China would accelerate global growth. The market dropped precipitously in late February and into March when the COVID-19 pandemic led to a global recession as countries locked down economic activity to fight the spread of the disease. Despite the recession, the equity market rallied from late March as governments provided emergency fiscal stimulus and economic activity began to slowly reaccelerate. As of fiscal year end 2020, the market had recovered and posted gains for the 11<sup>th</sup> consecutive year.

### International returns decline in both developed and emerging markets

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The international markets in fiscal 2020 were driven lower by the severe economic impact from measures taken by countries across the globe to reduce the spread of the COVID-19 virus. The overall emerging market returns were slightly less negative than those in the developed markets due to positive returns in the largest emerging markets in Asia, including China.



## COVID-19 pandemic puts brakes on REITs in fiscal 2020

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The REITs market performed well until mid-February, when the coronavirus pandemic brought key sectors to a halt. Work from home and stay at home orders impacted real estate much more than the broad equity market. With travel severely limited, Lodging and Resort REITs took a big hit as well. Even Healthcare REITs suffered as people delayed non-emergency procedures. The result was a negative return for this asset class.

## Structure

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

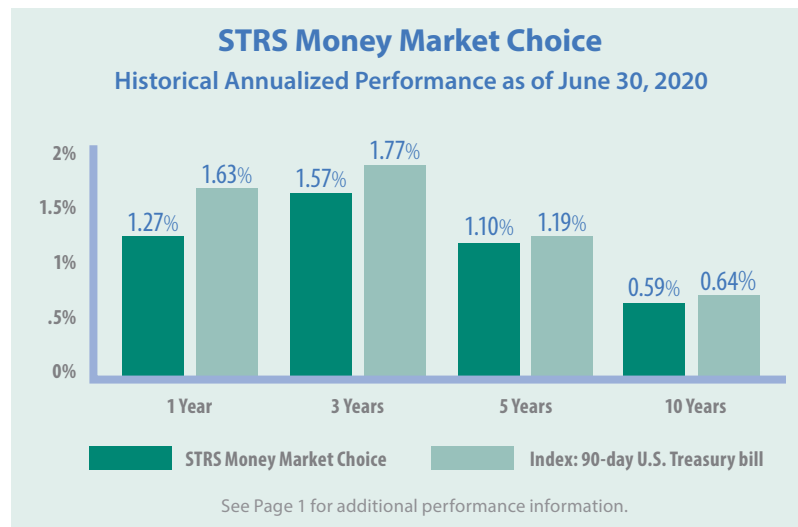
The STRS Money Market Choice returned 1.27%, after fees, for fiscal year 2020 compared to the benchmark 90-day U.S. Treasury bill that returned 1.63%. The choice invested mainly in U.S. government-backed Treasury bills and Agency Notes, but supplemented yields with investments in Floating Rate Corporate Bonds with maturities within 12 months.

## Market Drivers

STRS Money Market Choice performance was 1.27%, 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 1.75 during the fiscal year. The Federal Reserve lowered the federal funds target rate two times during the fiscal year from a range of 1.50%–1.75% at the beginning, to 0%–.25% by the end of the year. The two reductions came in March as the Federal Reserve looked to provide liquidity and monetary stimulus to the economy as it dealt with the COVID-19 pandemic. U.S. Government and Agency Notes made up the bulk of the investable universe with Commercial Paper and Floating Rate Corporate Bonds to a lesser extent. The table below shows the STRS Money Market Choice investment allocation:

## Sector Weightings as of June 30, 2020

Sector	Weight
U.S. Government and Agency Notes	95%
Commercial Paper	4%
Money Market	1%
<b>Total STRS Money Market Choice</b>	<b>100%</b>





### Structure

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The STRS Bloomberg Barclays U.S. Universal Bond Choice is intended to closely track the return of the Bloomberg Barclays 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 mortgage-backed, 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 Barclays 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 Barclays U.S. Universal Bond Index are shown below.

### Annual Asset Management Fee

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

### Performance

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For the fiscal year ending June 30, 2020, the STRS Ohio Fixed Income Choice returned 7.80%, after fees. This section details the performance of the Bloomberg Barclays U.S. Universal Bond Index. While the STRS Ohio Fixed Income Choice seeks to closely track the performance of its corresponding index, actual performance will differ because the index does not incur management fees.

Fiscal 2020 was a strong year for fixed-income market returns. The first six months of the fiscal year had a return of +2.6% and the second half of the fiscal year returned +5.2%. Fixed income returns were driven by the decrease in interest rates and interest income earned. The highest returning sector was U.S. Treasuries (+10.45%), followed by investment-grade corporate bonds (+9.50%), commercial mortgage-backed securities (+6.83%), government-related (+6.63%), mortgage-backed securities (+5.67%), asset-backed securities (+4.68%), emerging market debt (+2.96%), and high yield (+0.03%).

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### Market Drivers

Fiscal 2020 was a strong year for fixed-income market returns as interest rates declined. In response to the COVID-19 pandemic, global fiscal and monetary authorities introduced unprecedented support packages to reduce the impact of public health measures on the global economy. The 10-year U.S. Treasury bond yield fell from 2.01% at the beginning of the fiscal year to 0.66% at fiscal year-end, resulting in price appreciation.

### Index Statistics as of June 30, 2020

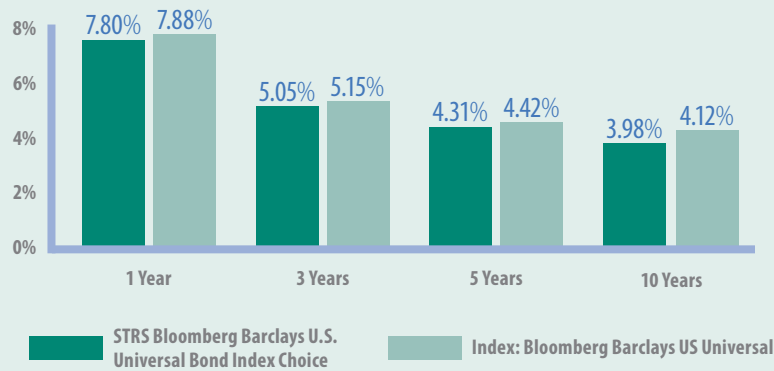
Number of Issues .....	18,363
Average Yield .....	1.82%
Average Maturity .....	8.07 Years
Market Value .....	\$28.75 Trillion

### Sector Weightings as of June 30, 2020

Sector	Weight
Treasury.....	31%
Corporate .....	26%
Mortgage.....	25%
Emerging Market.....	8%
Government-Related .....	5%
High Yield .....	5%
<b>Total STRS Bloomberg Barclays U.S. Universal Bond Index</b>	<b>100%</b>

### STRS Bloomberg Barclays U.S. Universal Bond Index Choice

Historical Annualized Performance as of June 30, 2020



See Page 1 for additional performance information.  
Effective Aug. 24, 2016, the Barclays indexes were rebranded to the Bloomberg Barclays Indices.



### Structure

The STRS Large-Cap Core Choice seeks long-term capital appreciation by investing in a diversified portfolio of large-capitalization U.S. equities. The goal of the portfolio is to generate returns in excess of the Russell 1000® Index, before fees. The Russell 1000® Index represents the 1,000 largest companies traded in the U.S. markets. This choice is broad-based 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 gained 6.41%, after fees, in fiscal year 2020. This return trailed the return of 7.48% posted by the benchmark Russell 1000® Index. Underperformance was attributed primarily to stock selection, with much of the weakness due to a bias toward value stocks. Many large cap growth stocks, especially those that benefited during the global lockdown, saw extreme outperformance, while economically sensitive sectors such as energy and financials underperformed over the period.

### Market Drivers

The U.S. equity market, as measured by the Russell 1000® Index, rose 7.48% during the period. This marked the 11<sup>th</sup> consecutive year of market gains despite the global recession attributed to the COVID-19 pandemic. While corporate earnings fell dramatically, valuation multiples expanded, buoyed by fiscal stimulus, low interest rates, and the promise of a vaccine that would likely reaccelerate economic activity.

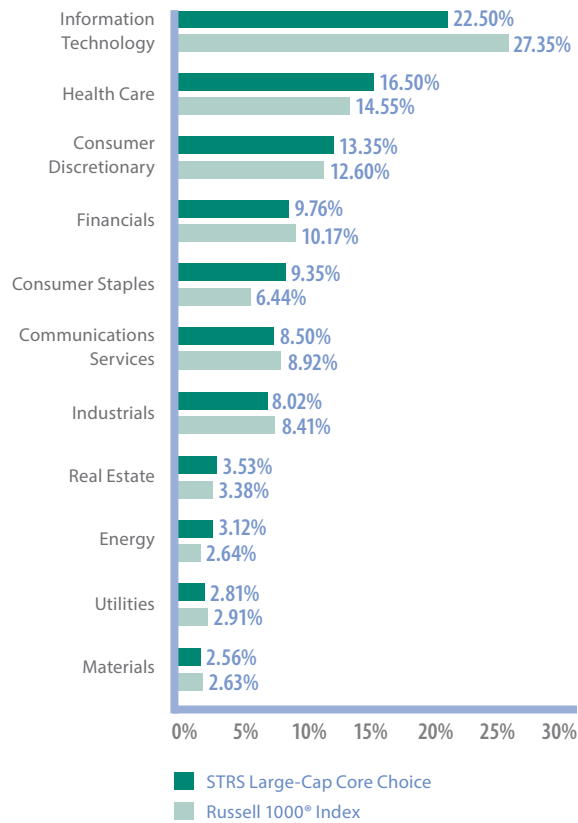
The equity market was extremely volatile. The U.S. market peaked in mid-February before falling dramatically into late March as global economies shut down to stop the spread of COVID-19. Stocks recovered strongly into the end of the fiscal year, buoyed by large amounts of government-backed stimulus, low interest rates, and the hope of a vaccine. Growth stocks, especially those that benefited from work-from-home orders, were the best performers for the year with technology stocks leading the gains. Economically sensitive companies performed poorly over the period, with the energy, financial, and industrial sectors down the most over the year.

### Top 10 Holdings as of June 30, 2020

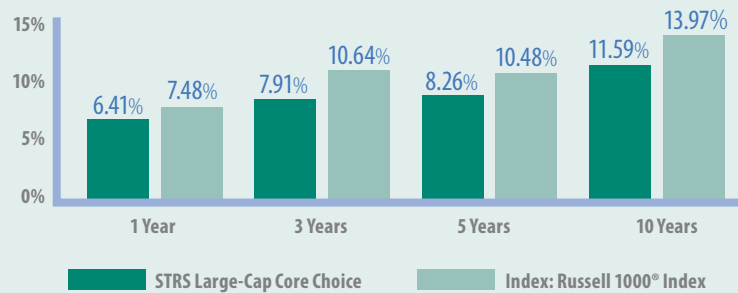
Top 10 Holdings	% of Total Investment Choice
Microsoft Corp. (MSFT) .....	6.41%
Apple Inc. (AAPL) .....	4.14%
Amazon.com Inc (AMZN).....	3.95%
Health Care Select Sector SPDR Fund (XLV) .....	2.94%
Alphabet Inc. Class A (GOOGL) .....	2.34%
Facebook Inc. Class A (FB) .....	1.98%
Fidelity National Information Services Inc. (FIS).....	1.58%
PepsiCo Inc. (PEP) .....	1.48%
UnitedHealth Group Inc. (UNH).....	1.47%
Berkshire Hathaway Inc. Class B (BRK-B) .....	1.44%

**Top 10 holdings represent 27.73% of the total investment choice.**

### Sector Weightings as of June 30, 2020



### STRS Large-Cap Core Choice Historical Annualized Performance as of June 30, 2020



See Page 1 for additional performance information.



### Structure

The STRS Russell 1000® Index Choice is an investment choice that is intended to closely match the performance of the Russell 1000® 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, 2020

Top 10 Holdings	% of Total Investment Choice
Microsoft Corp. (MSFT)	5.30%
Apple Inc. (AAPL)	5.19%
Amazon.com Inc. (AMZN)	4.07%
Facebook Inc. (FB)	1.90%
Alphabet Inc. Class A (GOOGL)	1.48%
Alphabet Inc. Class C (GOOG)	1.46%
Johnson & Johnson (JNJ)	1.29%
Berkshire Hathaway Inc. CL-B (BRK.B)	1.21%
Visa Inc. (V)	1.13%
The Procter & Gamble Company (PG)	1.01%

**Top 10 holdings represent 24.04% 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, 2020

Sector	Weight
Information Technology	27.35%
Health Care	14.55%
Consumer Discretionary	12.60%
Financials	10.17%
Communications Services	8.92%
Industrials	8.41%
Consumer Staples	6.44%
Real Estate	3.38%
Utilities	2.91%
Energy	2.64%
Materials	2.63%
<b>Total Russell 1000® Index</b>	<b>100.00%</b>

### Performance

The STRS Russell 1000® Index Choice gained 7.43%, after fees, for the fiscal year ending June 30, 2020. 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.

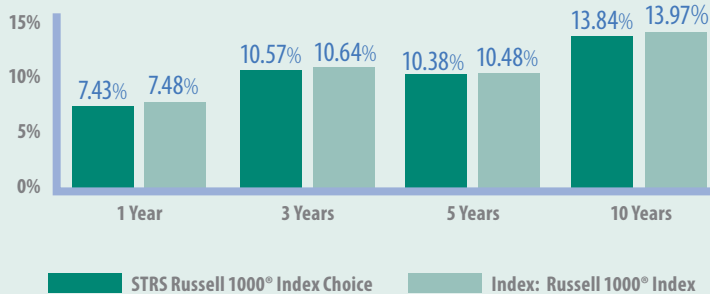
The returns in 2020 marked the 11<sup>th</sup> consecutive year of positive returns for the index.

### Market Drivers

The U.S. equity market, as measured by the Russell 1000® Index, rose 7.48% during the period. This marked the 11<sup>th</sup> consecutive year of market gains despite the global recession attributed to the COVID-19 pandemic. While corporate earnings fell dramatically, valuation multiples expanded, buoyed by fiscal stimulus, low interest rates, and the promise of a vaccine that would likely reaccelerate economic activity.

The equity market was extremely volatile. The U.S. market peaked in mid-February before falling dramatically into late March as global economies shut down to stop the spread of COVID-19. Stocks recovered strongly into the end of the fiscal year, buoyed by large amounts of government-backed stimulus, low interest rates, and the hope of a vaccine. Growth stocks, especially those that benefited from work-from-home orders, were the best performers for the year with technology stocks leading the gains. Economically sensitive companies performed poorly over the period, with the energy, financial, and industrial sectors down the most over the year.

**STRS Russell 1000® Index Choice**  
Historical Annualized Performance as of June 30, 2020



See Page 1 for additional performance information.

**Index Statistics as of June 30, 2020**

Total Market Value.....	\$28.70 Trillion
Largest Company Market Value .....	\$1.58 Trillion
Weighted Average Market Value .....	\$348.80 Billion
Mean Market Value .....	\$31.23 Billion
Smallest Company Market Value .....	\$1.55 Billion
Median Share Price .....	\$62.55
P/E Ratio.....	22.72
Dividend Yield .....	1.85%

**Russell 1000® Index Values**  
For Fiscal Year 2020



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.

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### Structure

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 -2.31%, after fees, for the fiscal year ending June 30, 2020. 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, 2020

Sector	Weight
Information Technology	19.30%
Industrials	14.85%
Health Care	13.00%
Consumer Discretionary	12.85%
Financials	11.38%
Real Estate	7.69%
Utilities	5.92%
Materials	5.08%
Consumer Staples	4.40%
Energy	2.98%
Communication Services	2.55%
<b>Total Russell Midcap® Index</b>	<b>100.00%</b>

### Market Drivers

Mid-cap stocks fell in 2020, trailing the large-cap index. Economic uncertainty regarding the recession caused by the COVID-19 virus led to a volatile equity market. The economic contraction led to lower profitability for most companies and resulted in investors fleeing from the mid-capitalization stocks to the perceived safety of larger capitalization growth stocks. Mid-cap growth stocks, especially those that benefited from work-from-home orders, saw the best performance but were more than offset by weak-performing, economically sensitive mid-cap value stocks.

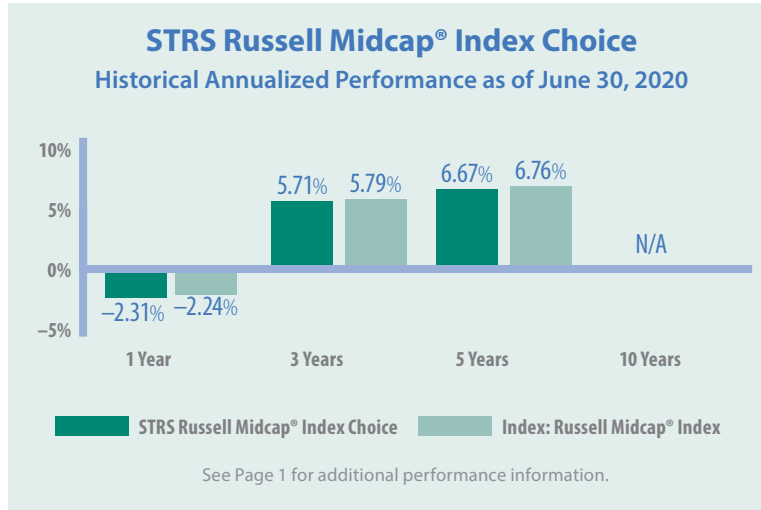
### Top 10 Holdings as of June 30, 2020

Top 10 Holdings	% of Total Investment Choice
Lululemon Athletica Inc. (LULU)	0.49%
Spotify Technology S.A. (SPOT)	0.46%
Xcel Energy Inc. (XEL)	0.45%
Splunk Inc. (SPLK)	0.43%
Veeva Systems Inc. (VEEV)	0.43%
O'Reilly Automotive Inc. (ORLY)	0.42%
DocuSign Inc. (DOCU)	0.42%
KLA Corporation (KLAC)	0.42%
IHS Markit Ltd. (INFO)	0.41%
Chipotle Mexican Grill Inc. (CMG)	0.40%

Top 10 holdings represent 4.33% of the total index.

### Index Statistics as of June 30, 2020

Total Market Value	\$7.25 Trillion
Largest Company Market Value	\$47.96 Billion
Weighted Average Market Value	\$15.64 Billion
Mean Market Value	\$9.96 Billion
Smallest Company Market Value	\$1.55 Billion
Median Share Price	\$56.44
P/E Ratio	19.85
Dividend Yield	1.90%



### Russell Midcap® Index Values For Fiscal Year 2020



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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### Structure

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, 2020

Top 10 Holdings	% of Total Investment Choice
Deckers Outdoor Corporation (DECK)	0.31%
LHC Group Inc. (LHCG)	0.30%
BJ’s Wholesale Club Holdings Inc. (BJ)	0.29%
Churchill Downs Inc. (CHDN)	0.29%
Novavax Inc. (NVAX)	0.27%
MyoKardia Inc. (MYOK)	0.27%
Helen of Troy Limited (HELE)	0.27%
SiteOne Landscape Supply Inc. (SITE)	0.27%
EastGroup Properties Inc. (EGP)	0.26%
Ultragenyx Pharmaceutical Inc. (RARE)	0.25%

Top 10 holdings represent 2.78% of the total index.

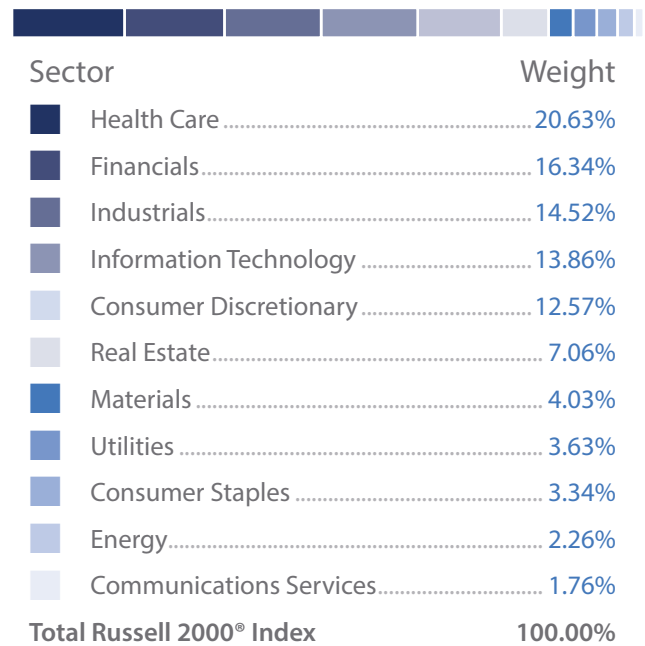
### Performance

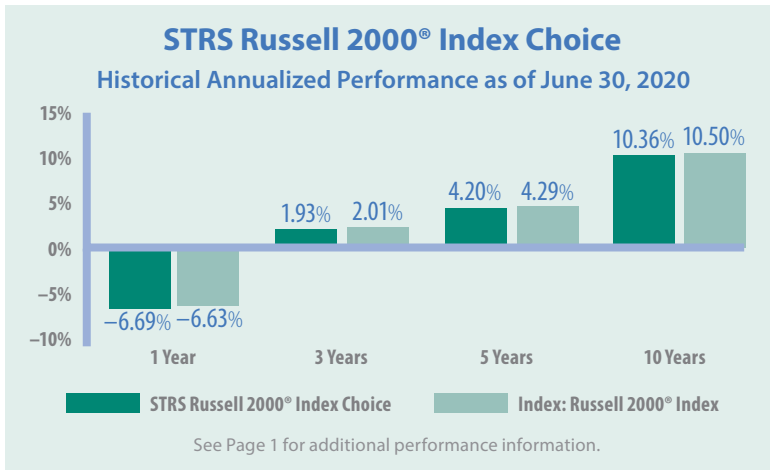
The STRS Russell 2000® Index fell –6.69%, after fees, for the fiscal year ending June 30, 2020. While the STRS Russell 2000® Index Choice seeks to closely track the performance of its corresponding index, actual performance will differ because the index does not incur management fees.

### Market Drivers

Investors saw small-cap stocks underperform the broader market in 2020, trailing large-cap equity market returns by a large margin. Economic uncertainty regarding the recession caused by the COVID-19 virus led to a volatile equity market. The economic contraction led to lower profitability for most companies and resulted in investors fleeing from the smaller capitalization stocks to the perceived safety of larger capitalization growth stocks.

### Sector Weightings as of June 30, 2020





### Index Statistics as of June 30, 2020

Total Market Value.....	\$1.75 Trillion
Largest Company Market Value .....	\$5.79 Billion
Weighted Average Market Value .....	\$2.11 Billion
Mean Market Value .....	\$1.04 Billion
Smallest Company Market Value .....	\$47.94 Million
Median Share Price .....	\$16.28
P/E Ratio.....	16.89
Dividend Yield .....	1.69%

### Russell 2000® Index Values

#### For Fiscal Year 2020



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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### Structure

The STRS REIT Index Choice invests in the public securities of real estate companies, primarily real estate investment trusts (REITs). The objective is 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 -13.12%, closely tracking the FTSE NAREIT Equity REITs Index return. The FTSE NAREIT Equity Index was enjoying strong performance until mid-February, up 14% and in line with overall equity indices. The market then realized the extent of the COVID-19 pandemic and fell precipitously. The FTSE NAREIT Equity Index bottomed on March 23 at -36.5%. A jagged recovery brought the Index back to -13.12% by the end of June. The broad equity market had a much stronger recovery off the bottom and ended the year significantly outperforming the FTSE NAREIT Equity Index. The five-year REIT return is 4.1% annually, entirely comprised of dividend return with no price appreciation.

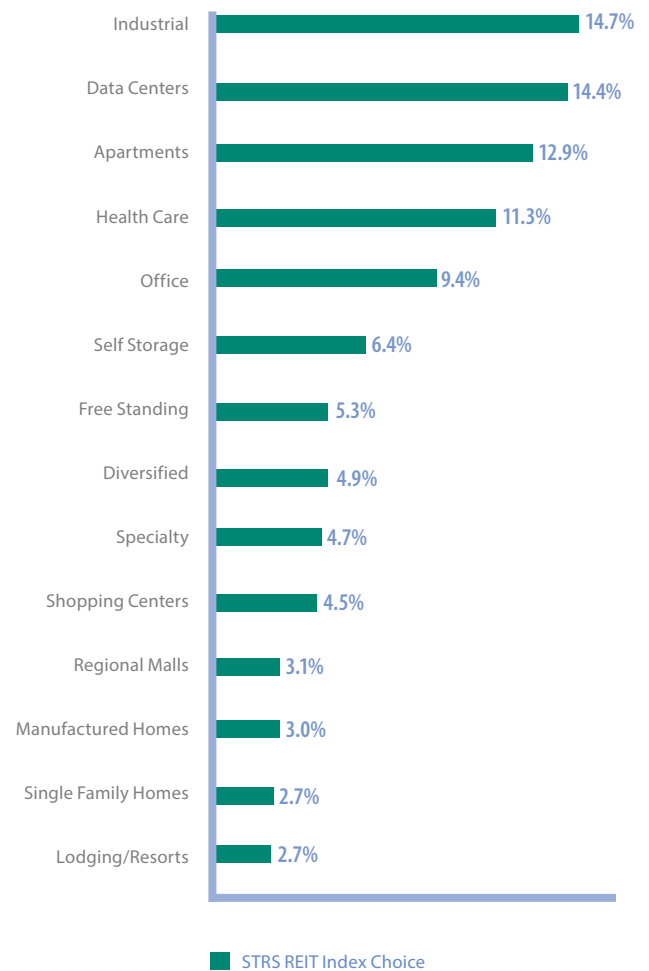
### Market Drivers

The biggest story of fiscal 2020 is the COVID-19 pandemic. The country began the shutdown in March and the uncertainty dominated performance for the fiscal year. Work-from-home and stay-at-home orders impacted real estate much more than the broad equity market.

Without the ability to travel, Lodging and Resort REITs took the biggest hit, down almost 48% for the fiscal year. Data Centers and Industrials had strong positive performance with the increase of online shopping and communication. On the other side of the trend, Retail suffered, down 34%. In both the Residential and Office REIT space, the economic downturn brought expectations of occupancy declines and losses on rent collection and releasing space. Even Health Care REITs suffered, down 24% as people delayed procedures.

Uncertainty about life going into the pandemic caused a huge drop in the REIT Index, wiping out years of price appreciation. It is yet to be seen if all that uncertainty about lifestyle coming out of the pandemic has already been priced into the stocks. The REIT dividend yield just above 4% is an attraction in a low interest rate environment.

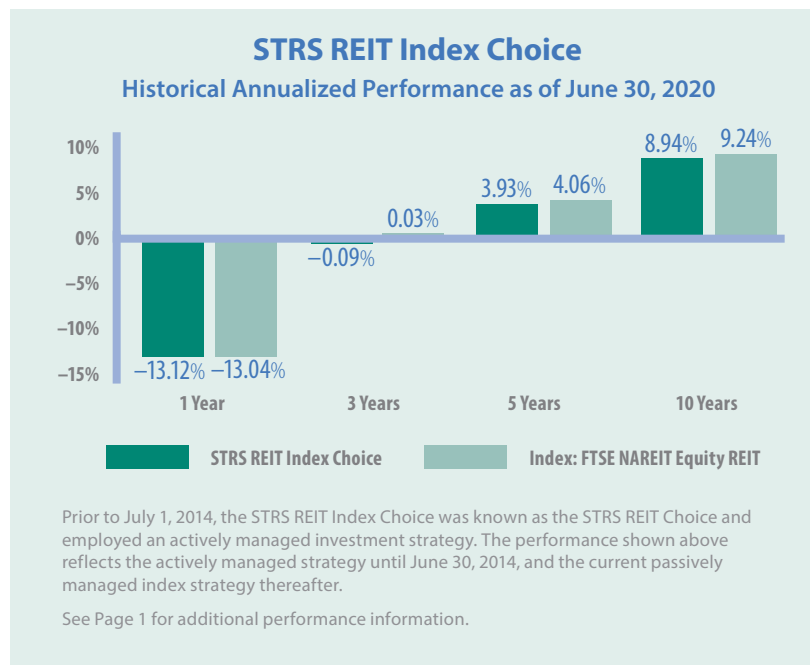
### Sector Weightings as of June 30, 2020



### Top 10 Holdings as of June 30, 2020

Top 10 Holdings	% of Total Index
Prologis Inc. (PLD)	8.46%
Equinix Inc. (EQIX)	7.60%
Digital Realty Trust Inc. (DLR)	4.67%
Public Storage (PSA)	3.56%
AvalonBay Communities Inc. (AVB)	2.68%
Equity Residential (EQR)	2.66%
Welltower Inc. (WELL)	2.66%
Simon Property Group Inc. (SPG)	2.56%
Realty Income Corp (O)	2.52%
Alexandria Real Estate Equities Inc. (ARE)	2.50%

**Top 10 holdings represent 39.87% of the total investment choice.**





## Structure

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

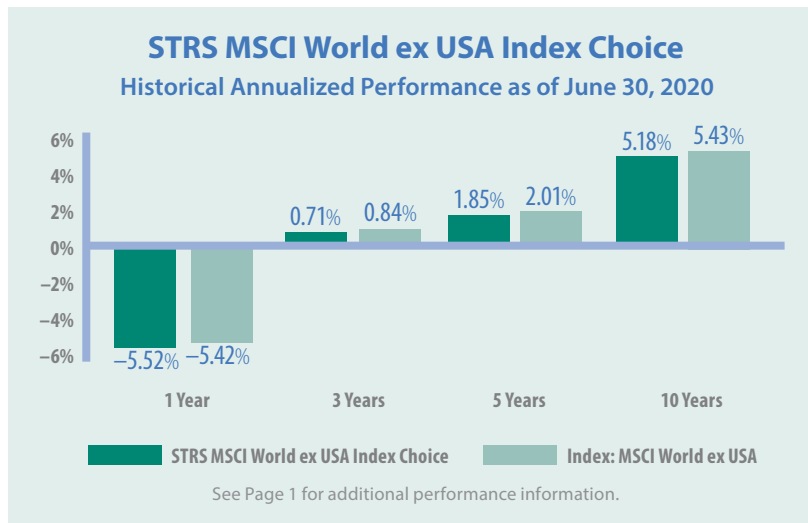
The STRS MSCI World ex USA Index Choice decreased 5.52%, after fees, for the fiscal year ending June 30, 2020. This choice has provided a five-year return of 1.85%. While the STRS MSCI World ex USA Index Choice seeks to closely match the performance of its corresponding index, its actual performance will differ because the index does not incur management fees.

## Market Drivers

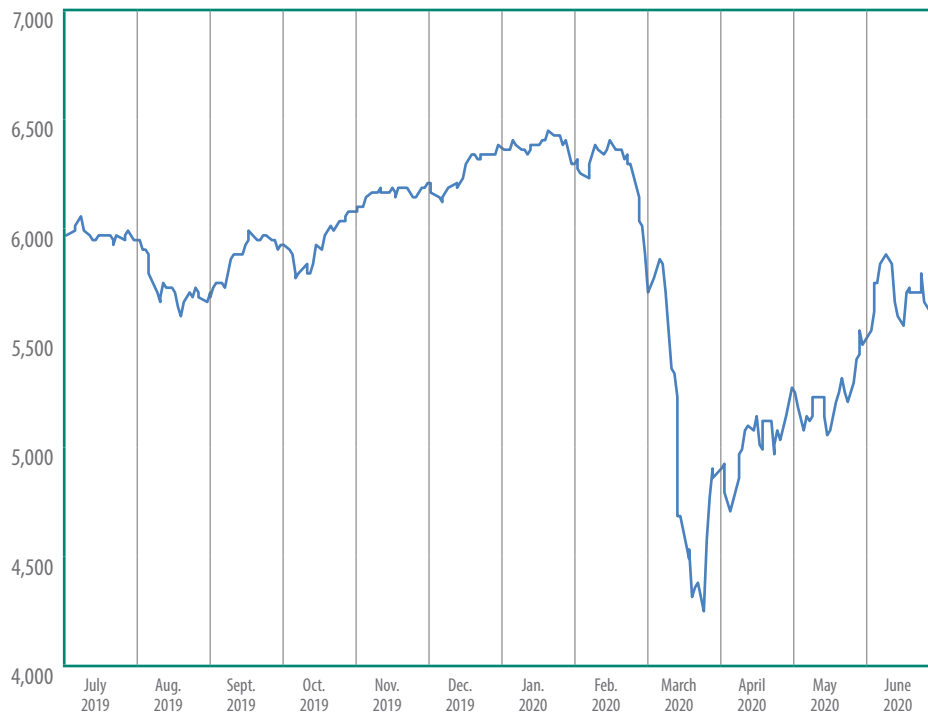
This section details the market drivers of the MSCI World ex USA Index, which is the benchmark for the STRS MSCI World ex USA Index Choice. The international developed markets were performing well in the first half of fiscal 2020, but the global pandemic started to impact markets in the second half of the fiscal year. The market reaction to the sudden decline in economic activity was swift and severe with the worst equity market impact for the fiscal year occurring in March. Central banks lowered policy interest rates and introduced other easing measures to provide liquidity and calm the markets. Governments also implemented fiscal spending programs to support individuals and businesses. In the final quarter of fiscal 2020, the markets began to discount an economic recovery. The best performing countries in fiscal 2020 were Denmark (+22.9%), New Zealand (+22.4%) and Netherlands (+9.2%). The three weakest markets were Austria (-27.7%), Norway (-22.4%) and Belgium (-21.6%). The U.S. dollar strengthened modestly overall against developed market currencies, so the returns of dollar-based investors such as STRS Ohio were negatively impacted this fiscal year.

## Country/Region Weightings as of June 30, 2020

Country/Region	% of Index
Japan.....	23.09%
United Kingdom .....	12.81%
France .....	9.91%
Switzerland .....	9.37%
Canada .....	9.09%
Germany .....	8.41%
Australia .....	6.12%
Netherlands.....	3.92%
Hong Kong.....	3.11%
Sweden .....	2.77%
Spain .....	2.19%
Denmark.....	2.13%
Italy .....	2.10%
Singapore.....	1.01%
Finland.....	0.92%
Belgium.....	0.84%
Ireland.....	0.59%
Israel.....	0.57%
Norway.....	0.47%
New Zealand .....	0.30%
Portugal .....	0.16%
Austria .....	0.15%
<b>Total MSCI World ex USA Index</b>	<b>100.00%</b>



### MSCI World ex USA Index Values For Fiscal Year 2020



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.





## Structure

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

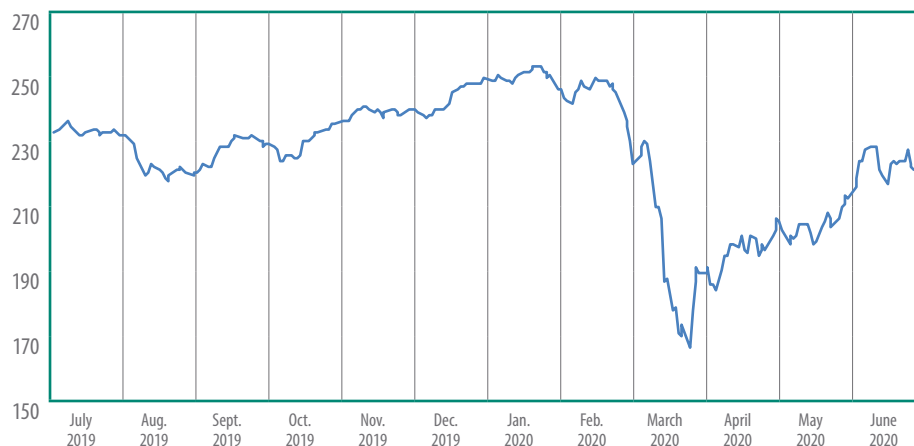
## Performance

The STRS MSCI ACWI ex USA Index Choice decreased 4.94%, after fees, for the fiscal year ending June 30, 2020. 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. The international markets were performing well in the first half of fiscal 2020, but the global pandemic started to impact markets in the second half of the fiscal year. The market reaction to the sudden decline in economic activity was swift and severe with the worst equity market impact for the fiscal year occurring in March. Central banks lowered policy interest rates and introduced other easing measures to provide liquidity and calm the markets. Governments also implemented fiscal spending programs to support individuals and businesses. In the final quarter of fiscal 2020, the markets began to discount an economic recovery. Equity markets tended to perform better in geographic areas where COVID-19 was better contained. Both the highest return and the lowest return by country came from the emerging markets in fiscal 2020. The best performing countries were Taiwan (+23.0%), Denmark (+22.9%) and New Zealand (+22.4%). The three weakest markets were Argentina (-46.5%), Colombia (-40.4%) and Chile (-34.2%). The U.S. dollar strengthened modestly overall against international currencies, so the returns of dollar-based investors such as STRS Ohio were negatively impacted this fiscal year.

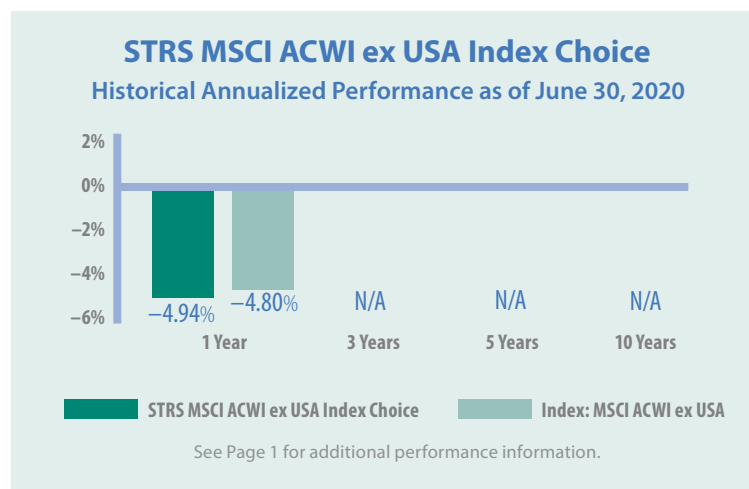
### MSCI ACWI ex USA Index Values For Fiscal Year 2020



### Country/Region Weightings as of June 30, 2020

Country/Region	% of Index	Country/Region	% of Index
Japan.....	16.47%	Belgium .....	0.60%
China.....	11.73%	Malaysia .....	0.51%
United Kingdom .....	9.14%	Mexico .....	0.50%
France .....	7.07%	Indonesia.....	0.42%
Switzerland.....	6.68%	Ireland.....	0.42%
Canada .....	6.49%	Israel .....	0.41%
Germany .....	6.00%	Norway.....	0.34%
Australia.....	4.36%	Philippines .....	0.24%
Taiwan .....	3.52%	Qatar .....	0.24%
Korea.....	3.33%	New Zealand .....	0.21%
Netherlands.....	2.80%	Poland.....	0.20%
India .....	2.30%	Chile .....	0.17%
Hong Kong.....	2.22%	United Arab Emirates.....	0.15%
Sweden .....	1.98%	Turkey .....	0.13%
Spain .....	1.56%	Austria .....	0.11%
Denmark.....	1.52%	Portugal .....	0.11%
Italy .....	1.48%	Peru .....	0.07%
Brazil.....	1.47%	Hungary .....	0.06%
South Africa.....	1.08%	Colombia .....	0.05%
Russia.....	0.93%	Argentina.....	0.04%
Saudi Arabia .....	0.76%	Greece .....	0.04%
Singapore.....	0.72%	Czech Republic.....	0.03%
Finland.....	0.66%	Egypt.....	0.03%
Thailand.....	0.65%	Pakistan.....	0.01%

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.



### Structure

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Unlike the other allocation options offered by STRS Ohio, this option provides a guaranteed interest rate on contributions and transfers made in a given year. In exchange for this protection against any possible negative returns, participants must “lock in” their contributions and transfers made during the year until the end of a five-year term. The interest rate is paid on the contributions and transfers until the end of the five-year term and is credited to the account on a daily basis. The five-year term begins with the initial allocation choice and concludes on the last day of the fifth fiscal year, ending June 30. (The STRS Ohio fiscal year runs from July 1–June 30.)

For example, contributions to the Total Guaranteed Return Choice 2022 made between July 1, 2019, and June 30, 2020, are locked in at a 4.25% annual interest rate until the end of the five-year term.

At the end of the five-year term, the participant must transfer the accumulated value to other STRS Ohio allocation choices.

If the participant doesn’t indicate allocation options, the accumulated value of the choice will be automatically rolled into the Target Choice option that falls immediately before the participant’s 60th birthday.

### Annual Asset Management Fee

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None

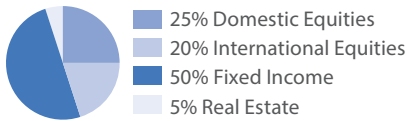
### Annual Interest Rate for Allocations Made Between July 1, 2019–June 30, 2020: **4.25%**

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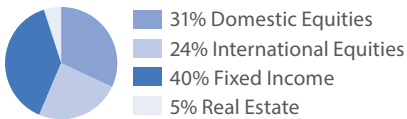
Effective July 1, 2018, this allocation choice no longer accepts new contributions.

### Compositions as of July 1, 2020

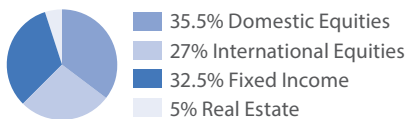
#### STRS Target Choice 2020



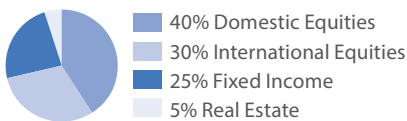
#### STRS Target Choice 2025



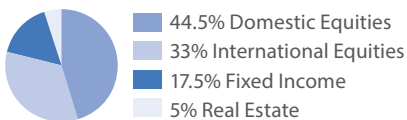
#### STRS Target Choice 2030



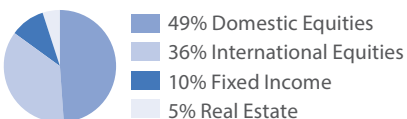
#### STRS Target Choice 2035



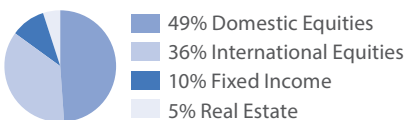
#### STRS Target Choice 2040



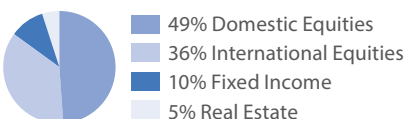
#### STRS Target Choice 2045



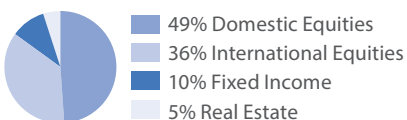
#### STRS Target Choice 2050



#### STRS Target Choice 2055



#### STRS Target Choice 2060



### Structure

These allocation 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.

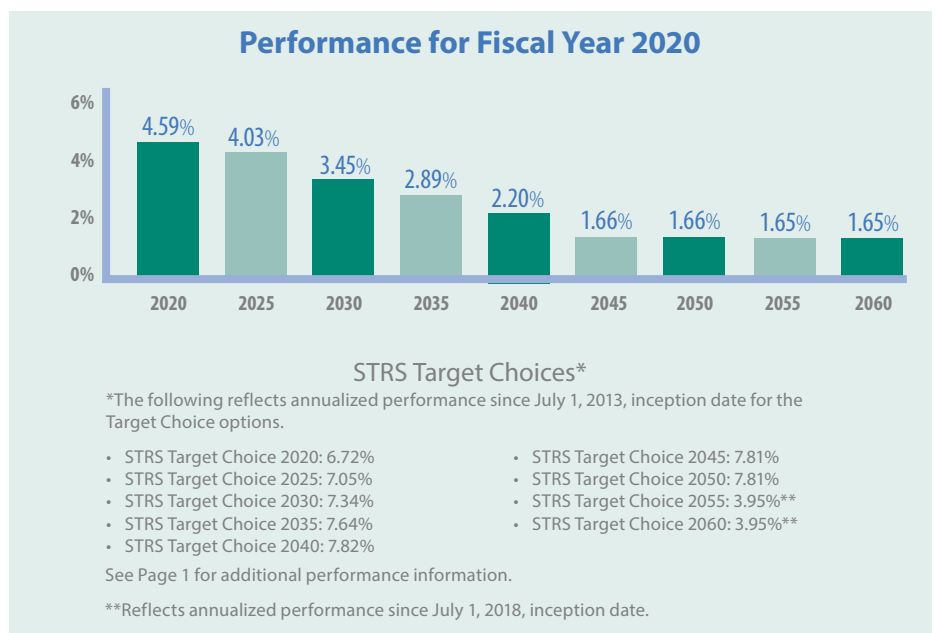
### Annual Asset Management Fee

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

### Performance

Target Choice options consist of blends of other STRS Ohio allocation 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 Barclays U.S. Universal Bond Index Choice on Pages 8–9.
- Domestic equities — The domestic equities component is the Russell 3000® Index Return. The Russell 3000® Index Return is comprised of approximately 90% of the Russell 1000® Index Return and approximately 10% of the Russell 2000® Index Return. The Russell 1000® 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.



## **benchmark**

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

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

The Bloomberg Barclays 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.

## **bond**

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.

### **Health Care**

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 (large-cap) 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 shares.

**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-to-earnings 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.

**currency risk**

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

**income risk**

The possibility income will decline because of falling interest rates.

**industry concentration risk**

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

**interest rate risk**

The risk that values will fall with changes in interest rates.

**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 Barclays 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.strsoh.org](http://www.strsoh.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



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 late-day 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 service credit 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 allocation 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](http://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.



**STATE TEACHERS RETIREMENT SYSTEM OF OHIO**

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