

SWIB Update

Michael Williamson, Executive Director



Today's Agenda

- Performance
- Investment Strategy
- Technology Update
- Looking Forward



Performance



Performance Update – Core Fund

*Preliminary as of November 30, 2017**

14.7%

Benchmark: 14.2%

5-Year

8.6%

Benchmark: 8.2%

10-Year

5.7%

Benchmark: 5.3%

20-Year

7.1%

Benchmark: 6.7%

*PRELIMINARY – Estimated returns, subject to final portfolio and benchmark valuations.

Performance Update – Variable Fund

*Preliminary as of November 30, 2017**

21.5%

Benchmark: 21.4%

5-Year

13.4%

Benchmark: 13.2%

10-Year

6.9%

Benchmark: 6.6%

20-Year

7.1%

Benchmark: 6.7%

*PRELIMINARY – Estimated returns, subject to final portfolio and benchmark valuations.

Core Fund Annuity Adjustments

Year	Dividend
2017	???
2016	2.0%
2015	0.5%
2014	2.9%
2013	4.7%
2012	-9.6%
2011	-7.0%
2010	-1.2%
2009	-1.3%
2008	-2.1%

Core Fund Historical Returns

Year	Benchmark	Return
2017*	14.2%	14.7%
2016	7.9%	8.6%
2015	-0.3%	-0.4%
2014	5.6%	5.7%
2013	12.9%	13.6%
2012	12.8%	13.7%
2011	0.9%	1.4%
2010	12.2%	12.4%
2009	19.9%	22.4%
2008	-24.8%	-26.2%

*PRELIMINARY – Estimated returns, subject to final portfolio and benchmark valuations.

Investment Strategy

Index	Value	Change	Volume
S&P 500 Index	991.04	-0.33%	1,234,567,890
RUSIND15	987.1	-0.20%	123,456,789



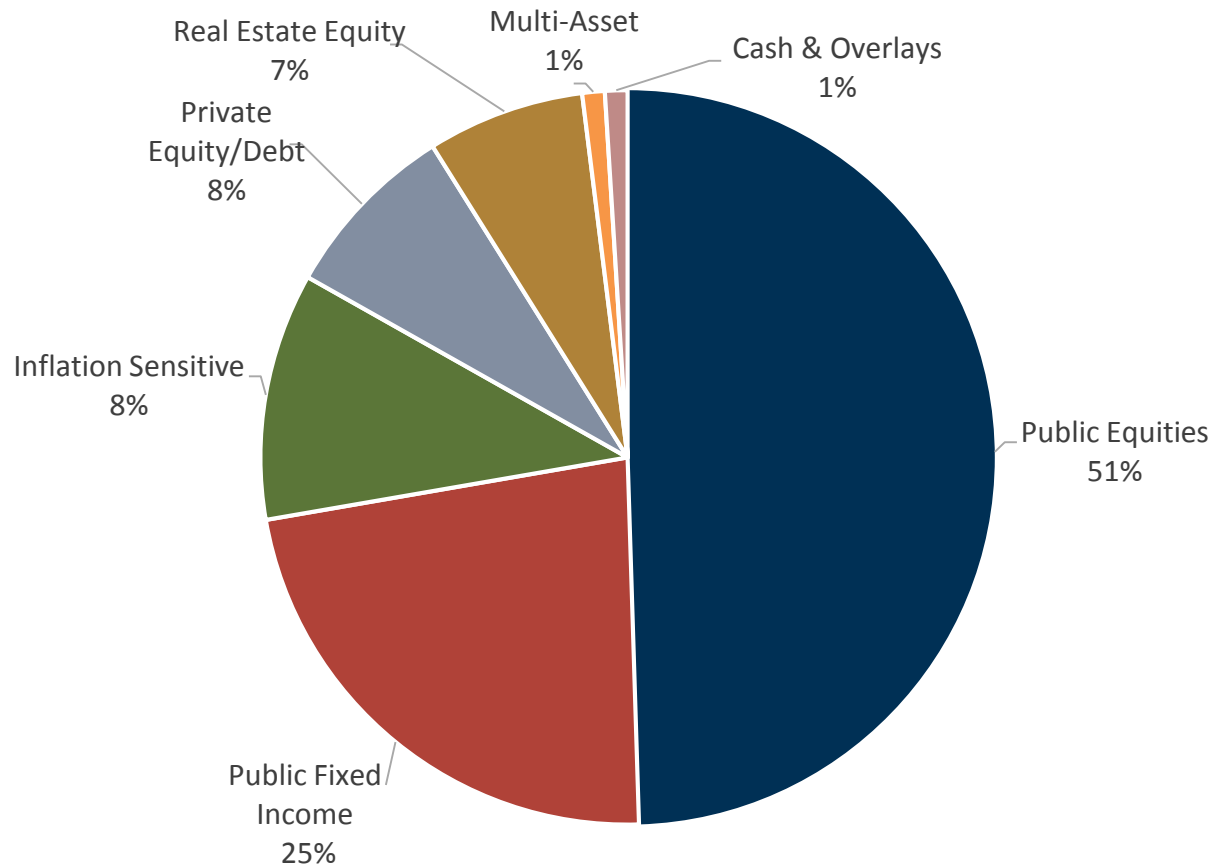
DAX Index	519.45	-0.31%	1,234,567,890
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Protecting & Growing the WRS

Make Money, Manage Risk & Optimize Cost

- WRS is one of two fully funded public pension plans in the country.
- Our strategy is disciplined, balanced, & focused on long-term results
- We invest first to protect the WRS from a major downturn & then to earn reasonable returns

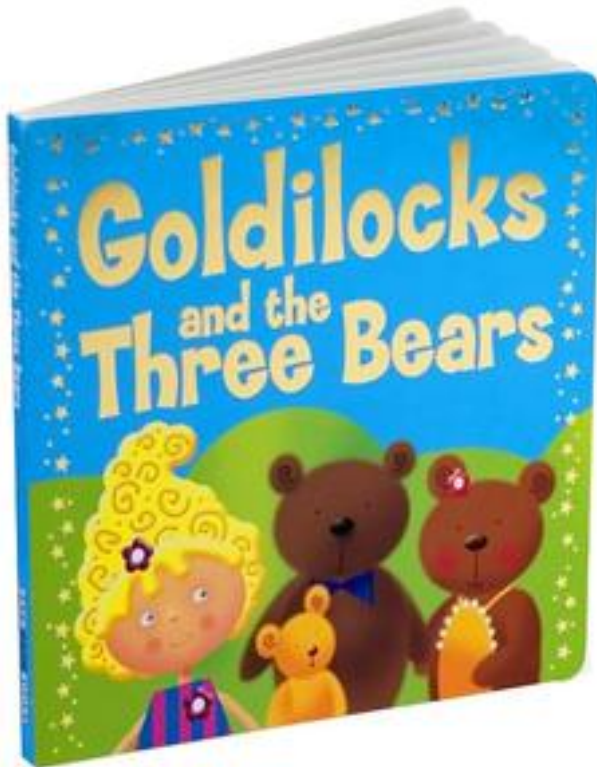
Core Fund Asset Allocation



Market value as of June 30, 2017

Source: Second Quarter Investment Performance Report

The Goldilocks Zone



Find the right asset allocation – one that doesn't take too much risk, one that doesn't take enough risk, but one that is *just* right.

Adapting to a Challenging Market

- Work closely with ETF & Gabriel Roeder Smith
- Maintain current asset allocation
- Expected to generate returns of 7.8% to 7.9% over the next 30 years
- Continue to explore future allocation changes based on shifting market conditions

Technology Update

Transforming for the Future

- Integrated platform comprised of leading technologies, services & processes
- Provides staff with easy access to high quality & timely data
- SWIB remains at the forefront of the pension fund industry
- Program has already paid for itself

Optimizing Costs



Low Cost Manager

- SWIB's costs were 43.1 cents per \$100 compared to the median 55.6 cents per \$100 for other large U.S. public pension funds
- Costs would have increased \$100 million
- Cost of SWIB staff to manage public market equities is 37% of outside managers cost

Looking Forward



Looking Forward

- SWIB is positioned to meet the challenging financial environment
- We can achieve 7.2% over the long-term
- The WRS will remain financially healthy

SWIB STATE OF WISCONSIN
INVESTMENT BOARD