COVID-19
IMPACT ON A PENSION PLAN'S LIQUIDITY

IT'S TIME TO PLAN NOW

May 20, 2020 | 10:00AM CDT

RIVER AND MERCANTILE

YOUR SUCCESS IS OUR SUCCESS

R&M partners with you to create *SIMPLY SMARTER SOLUTIONS™* to achieve your financial and HR objectives

R&M

GROUP

Innovative & Customized Solutions
We create and implement strategies tailored to our clients' unique needs and constraints

Engaged Investors
Proven investors that are considered thought leaders and innovators within the industry that actually engage with our clients

Outcome Focused
We focus our solutions as to what matters most – funded status for pension investors

Actuarial & Consulting	Fiduciary Management (OCIO)	Derivatives	Asset Management
~$35 billion	$15.6 billion	$29.9 billion	$4.7 billion

Today's speakers

Ross Clary
Senior Advisor
Houston, TX

B.S Texas A&M University

Email: Ross.Clary
@riverandmercantile.com
Tel 214-566-0867

Tom Cassara, FSA, CFA
US Consulting Leader
New York, NY

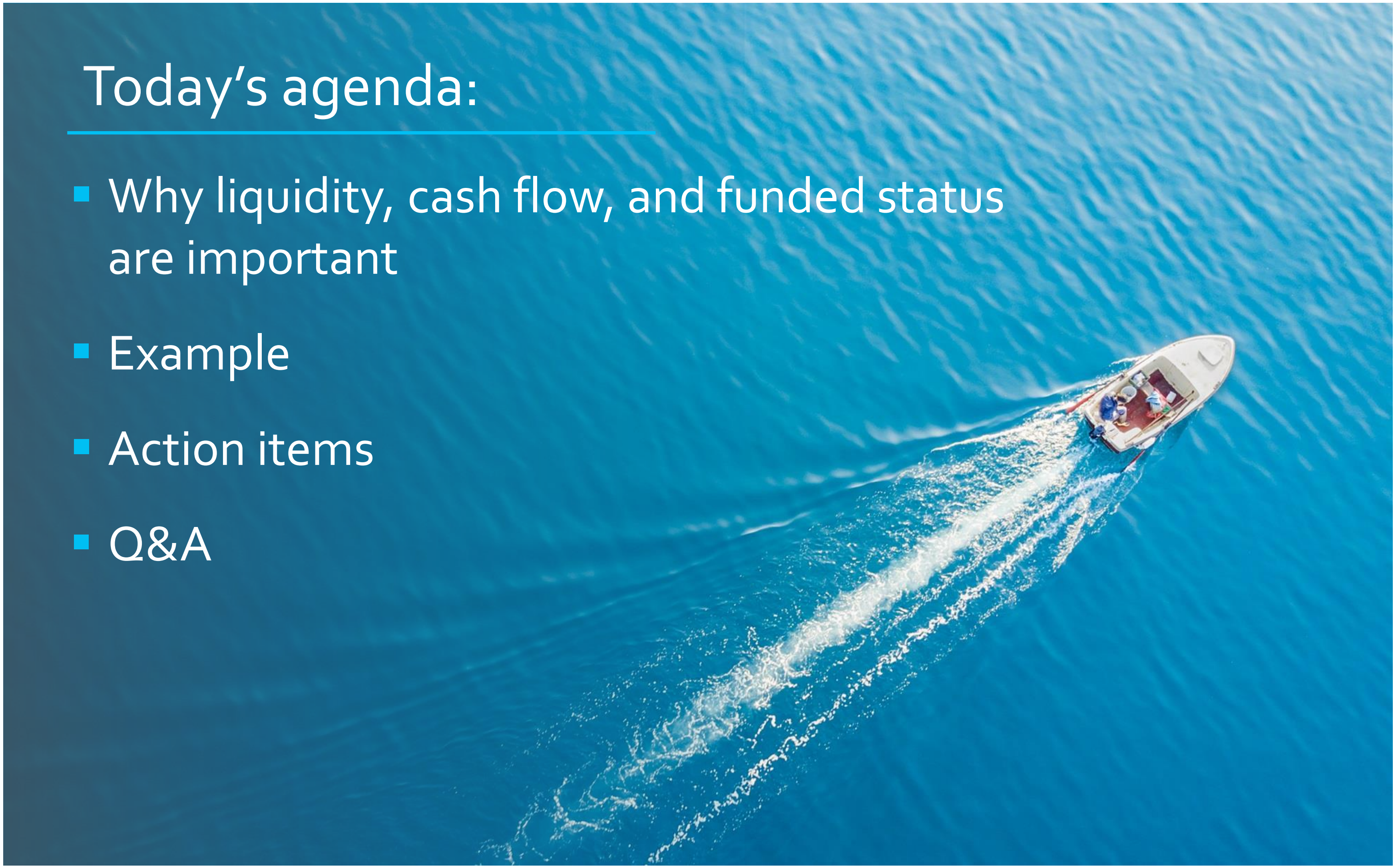
B.S. Wake Forest University
Fellow of the Society of Actuaries
CFA Charter Holder

Email: thomas.cassara
@riverandmercantile.com
Tel: 203-733-4726

Michael Clark, FSA, FCA, EA
Managing Director
Denver, CO

B.S Statistics Brigham Young University
(magna cum laude)
President of Conference of Consulting Actuaries

Email: michael.clark
@riverandmercantile.com
Tel: 303-945-0198



Today's agenda:

- Why liquidity, cash flow, and funded status are important
- Example
- Action items
- Q&A

Impact of current market environment

ECONOMY

S&P forecasts 2.4% drop in 2020 global GDP because of coronavirus

INVESTING | April 14th, 2020

Past Bear Market Strategies No Comfort for DB Plans Right Now

Pension plan consultants are tweaking recommendations for DB plan sponsors during the unprecedented volatility created by the coronavirus pandemic.

April 29, 2020 Funding ratio for state plans lowest in 30 years – Wilshire

Underfunded public plans facing a new round of woes

Public Pension-Fund Losses Set Record in First Quarter

U.S. Recession Model at 100% Confirms Downturn Is Already Here

Surge in Unemployment Claims Leaves No Doubt U.S. in Recession

Outside the Box

Opinion: Coronavirus will make America's cities feel the pressure of pension debt

Published: April 20, 2020 at 3:27 p.m. ET

By Jen Sidorova

Insolvent pension plans could drag some cities into bankruptcy

Source: Actual headlines from *Pensions & Investments*, *MarketWatch*, *Bloomberg*, *Wall Street Journal and Plansponsor.com*

What's the market environment causing?

Stress on Revenue and Budgets

Potential Layoffs and Retirements

Volatile Pension Funded Ratios

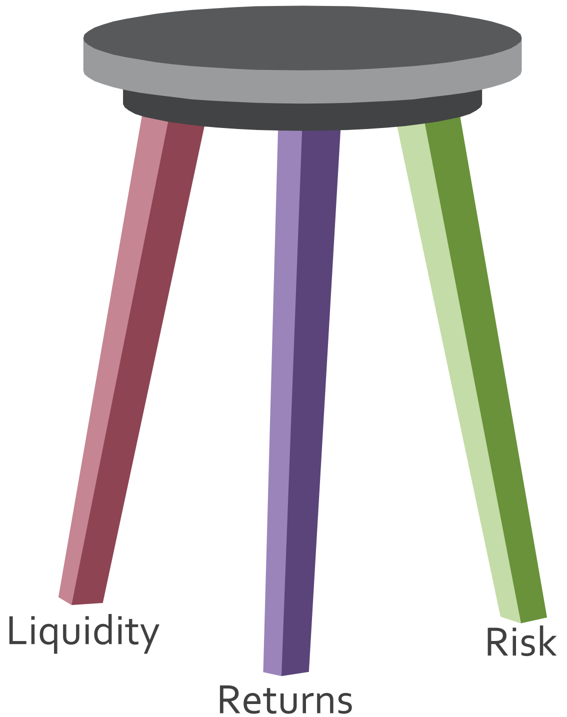
Apprehension about Potential Further Losses

Can lead to negative cash flow and a potential liquidity crunch

Why now?

- Benefit Payments can rise quickly and unexpectedly
  - DROP payments and lump sums
- Liquid assets may be stressed when cash is needed
- Quick decisions may not be able to be made
  - Will result in normal rebalancing or IPS default procedure
- May take time if you want to make asset allocation changes
  - Reduce alternatives portfolio
  - And/or, change asset managers
  - Add derivatives

Why is liquidity important?



RETURNS

Higher returns are always helpful but need to balance risk and liquidity

RISK

Expressed as impact to funded status and ability to make contributions

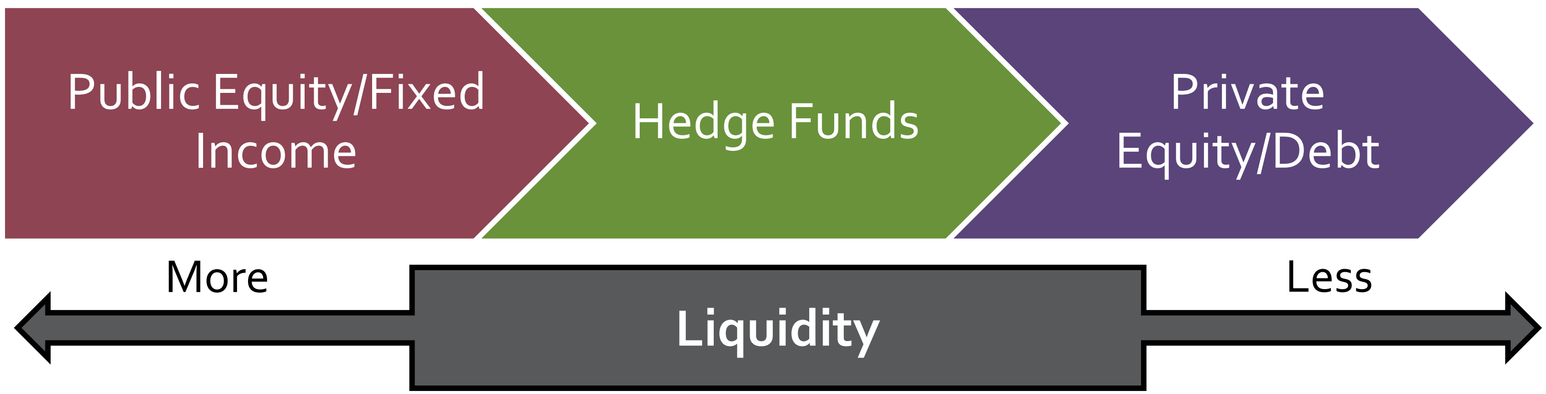
LIQUIDITY

Need to be able to meet future benefit payments without selling assets at unintended times

Liquidity often gets overlooked in planning, but is a critical component, especially in distressed situations

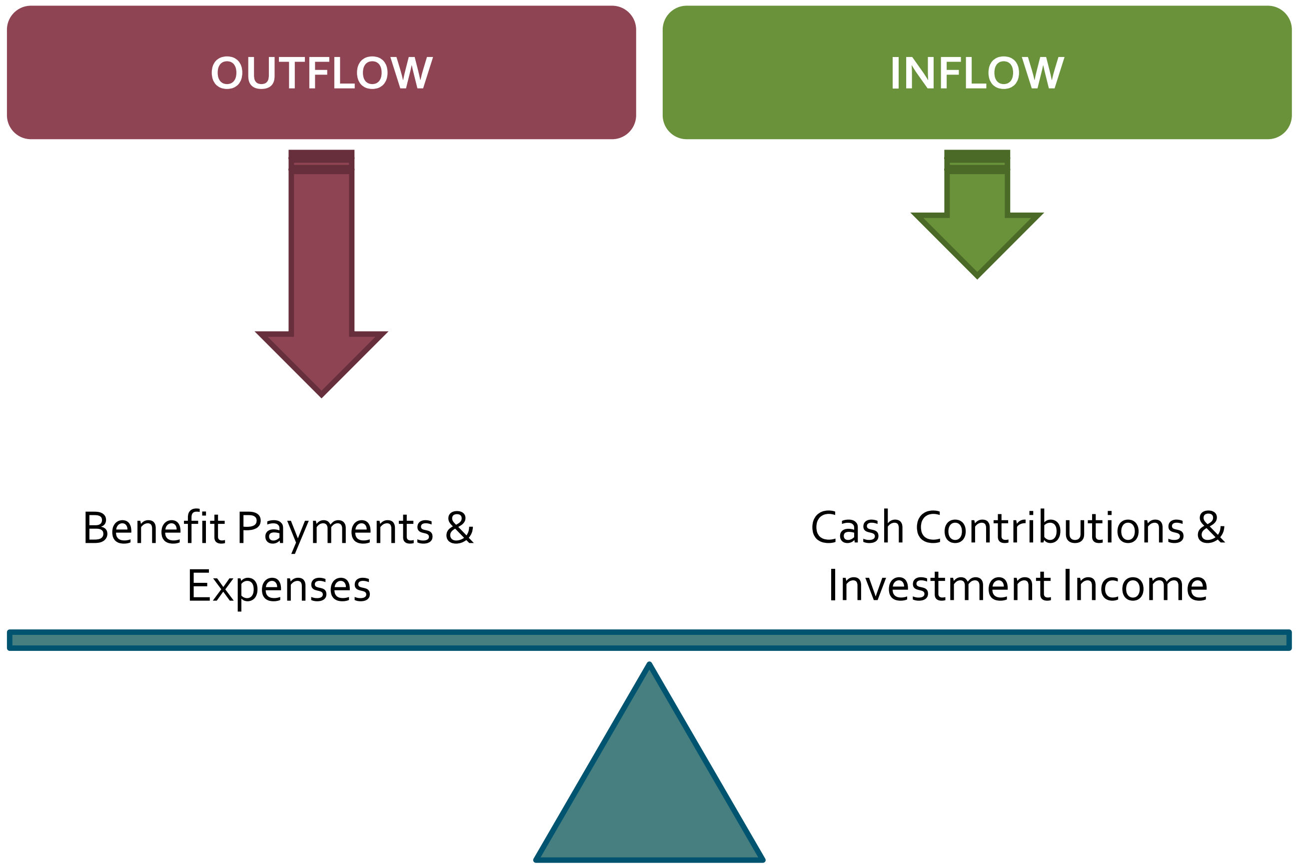
What is liquidity?

Per *Investopia*: Liquidity is the ease with which an asset, or security can be converted to cash without impacting its market price



Highly liquid (<1 month) items typically include; cash, ETFs, mutual funds, public equity, public fixed income
Less liquid (1 month – 1 year) items typically include alternative investments such as hedge funds
Illiquid (1-10 years) items typically include private equity, private debt, partnerships, etc.

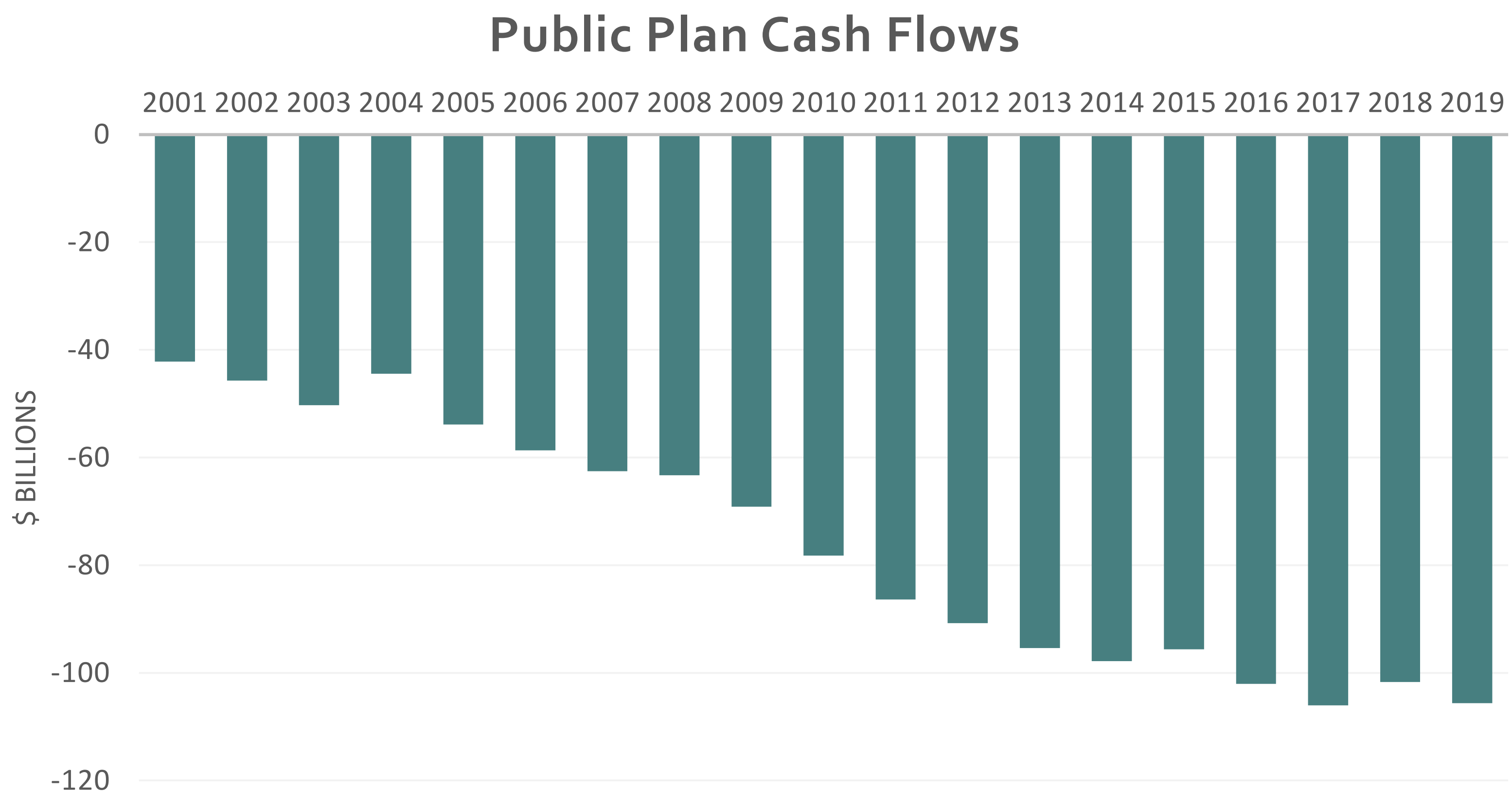
What is a liquidity crunch?



COVID19 impact will most likely increase benefit payments and decrease contributions

Why has liquidity mattered?

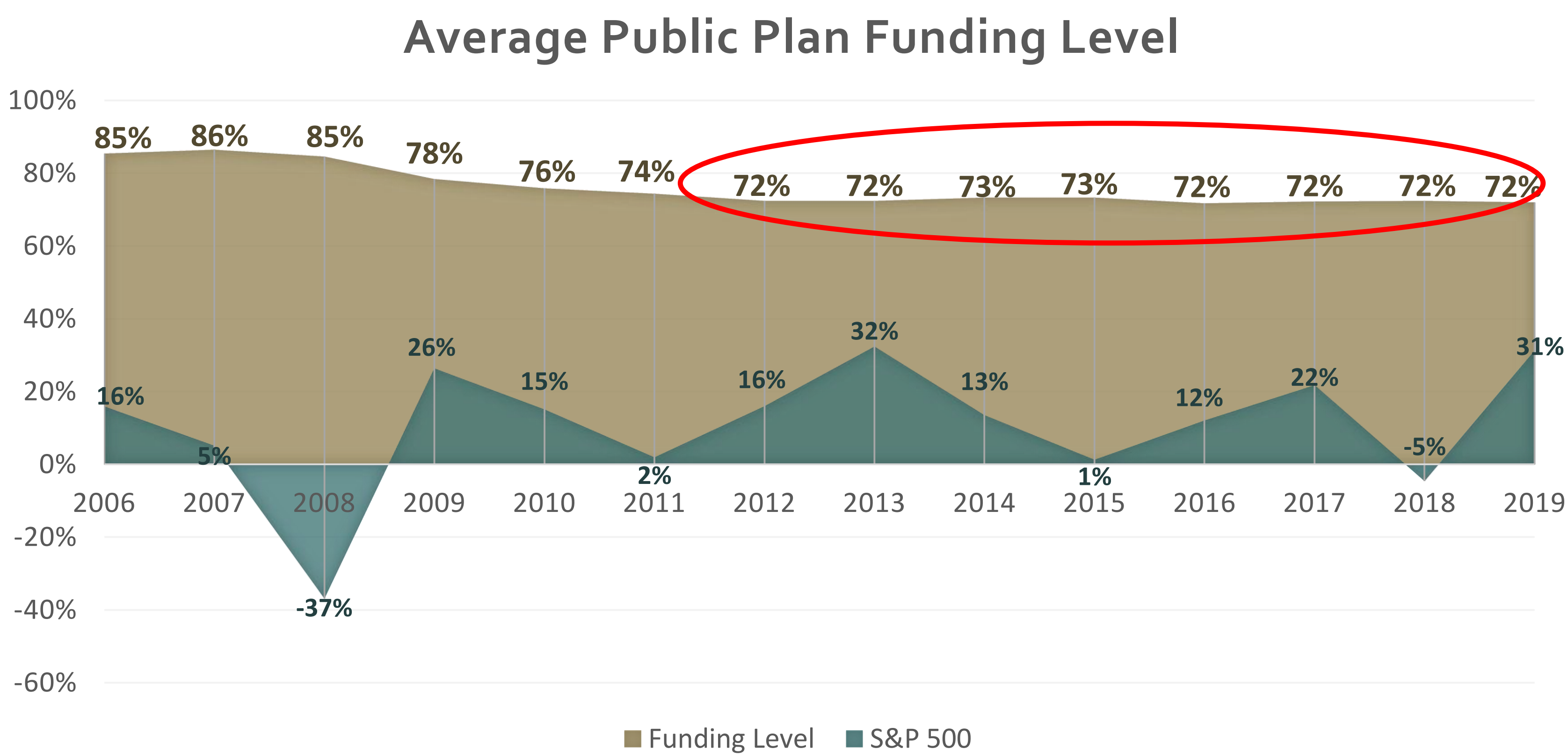
One major factor for lack of funded status improvement has been negative cash flow, causing plans to sell assets in both rising and falling markets



Source: www.publicplansdata.org

Why has liquidity mattered?

The average public pension plan has not recovered to pre-financial crisis funding status levels despite strong equity market returns of the last decade



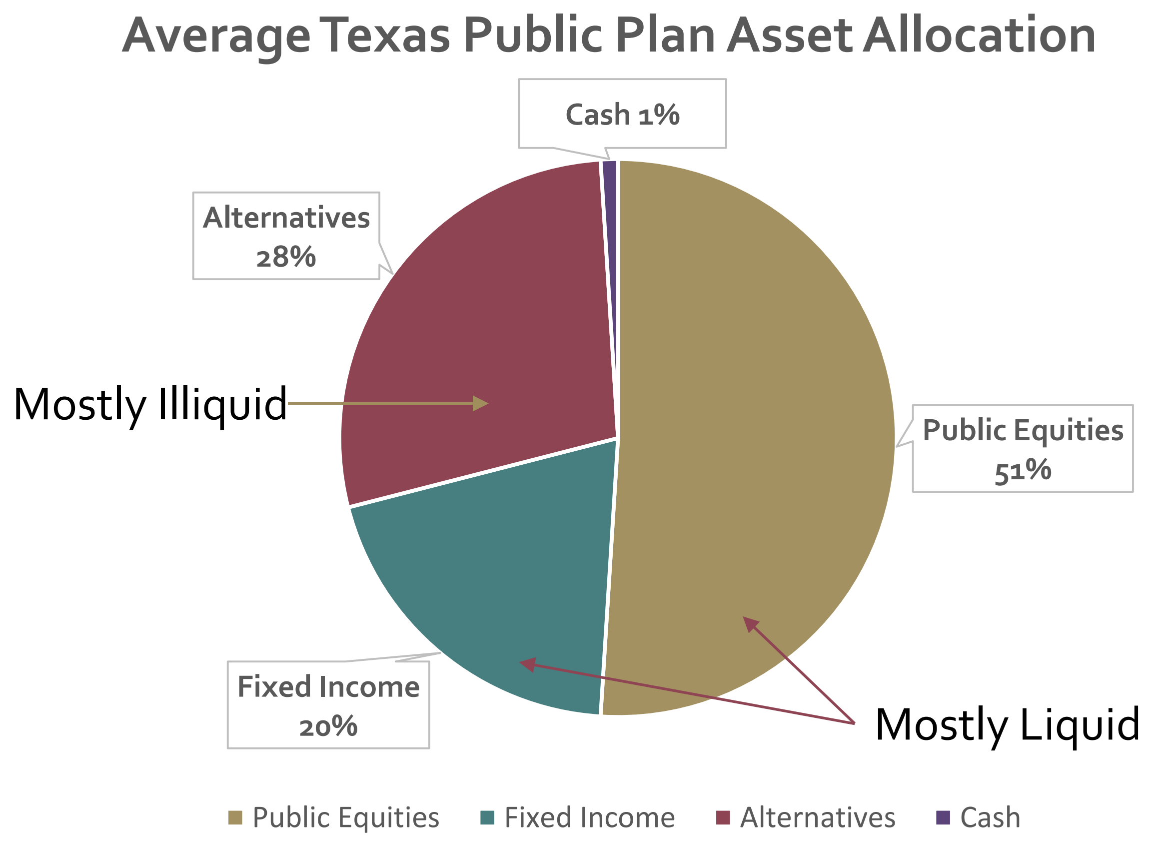
Source: www.publicplansdata.org

Positive cash flow matters

1. Negative cash flows require plan sponsors to raise liquidity (sell investments) to meet obligations
2. Timing and amount of outflow is predictable for regular benefit payments, but not lump sums
3. Selling assets requires an investment decision:
   - Rising markets – selling equity will dampen future returns
   - Falling markets – selling fixed income could increase risk and downside given overweight to equity and alternative investments
4. Most sponsors will use liquidity management to rebalance the portfolio to long term asset allocation as a default

Raising liquidity can be challenging

However, most plans have illiquid assets that can't be easily liquidated or reallocated in a timely fashion



Source: www.publicplansdata.org

Impact of funded status

- In addition, the plan's funded status impacts dollar liquidity
- The lower a plan's funded status means the greater percentage of assets that benefit payments represent:
  - Benefit payments will continue to grow and may accelerate
- Thus if liquid assets shrink, liquidity becomes bigger concern

Annual Benefit Payments $8M

	Start Period		15% Equity Drop	
	Percentage	Dollar Value	Percentage	Dollar Value
Fixed Income	20%	20	22%	20
Public Equity	50%	50	46%	42.5
Alternatives	30%	30	32%	30
Total Assets		100		92.5
Percentage of liquid assets		11%		13%

Raising liquidity: additional considerations

- Liabilities are not immediately impacted by market movements
- Lowering the dollar amount of fixed income below the desired target on a dollar basis can increase the dollar risk to the plan
- Based on the average Texas asset allocation, if a $100M plan was 70% funded with 20% in fixed income it would have $14M in fixed income
- However, after an equity downturn of 20% (and no change in fixed income levels), the amount of fixed income is still $14M, but now it's 23% of total portfolio
- Rebalancing fixed income to 20% will most likely increase dollar risk to plan

Plan for your liquidity needs

Review your asset allocation and plan design

Develop a market view

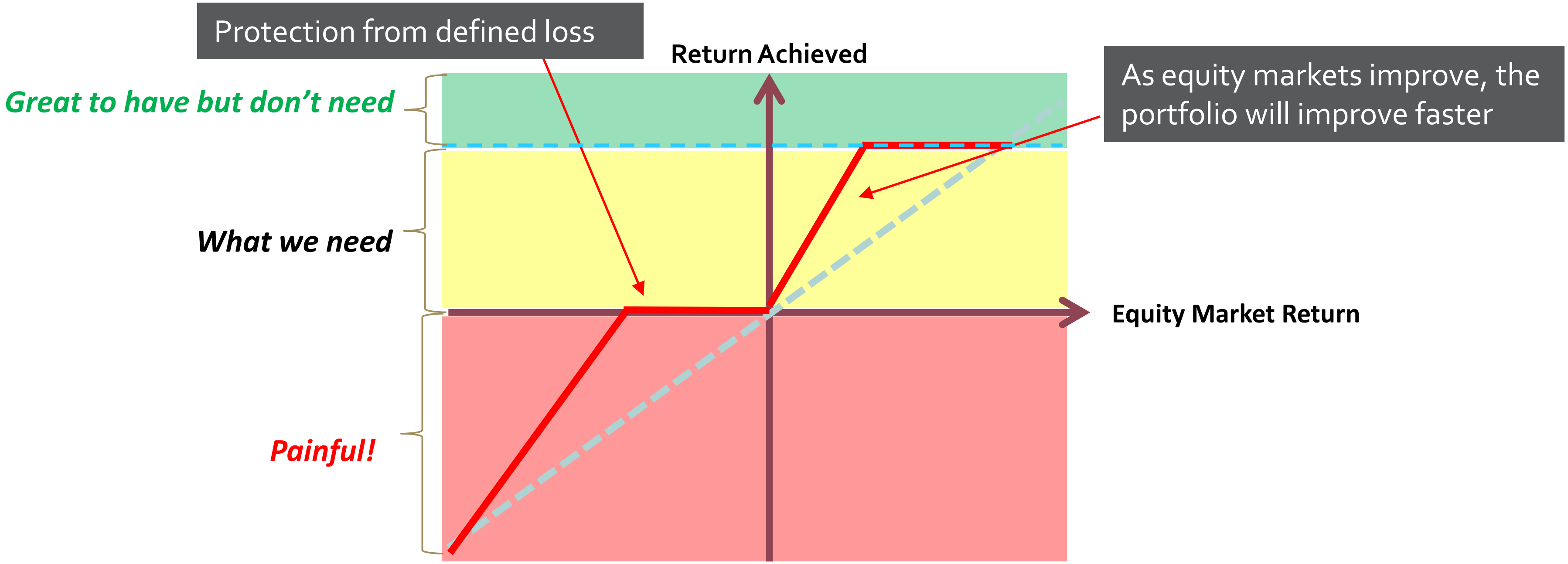
Incorporate liquidity needs with rebalancing decisions and market views

If liquidity will be a concern, develop action plan

- Our market research indicates we are in a downturn phase of the market cycle
    - Credit conditions are relatively weak
    - Equity valuations, especially U.S. are high vs. historical norms
- We expect a volatile market with a downward focus
    - Federal banks and governments have stepped up meaningfully to support the economy
    - Fundamental long-term improvements in economy may rely on science
- Until COVID19 is under control, volatility may last for longer than expected or experienced in recent history
    - 'The laws of finance don't trump the laws of physics'

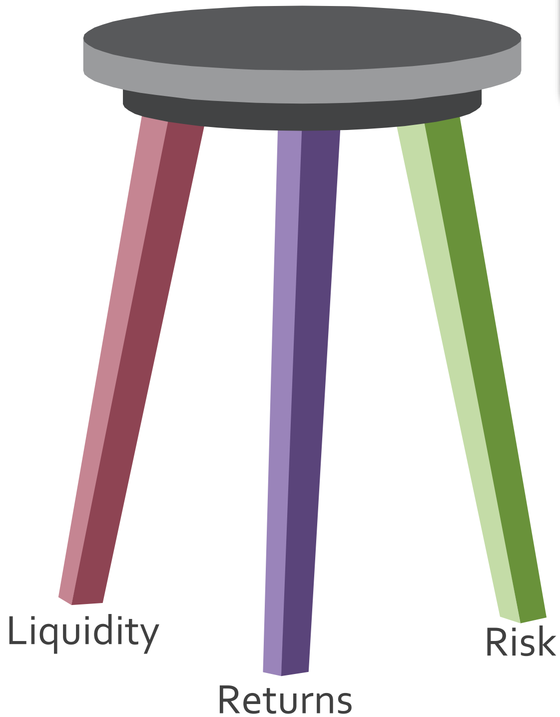
Expressing a view with derivatives

- Using derivatives allows Trustees to maintain current asset allocation exposures across markets while also being able to express an investment view
- In addition, using a derivatives contract can help provide both equity or fixed income exposure as well provide additional liquidity
- In designing a structure a sponsor can express a view, one such example is:



Key take-aways

Liquidity is a critical element to a plan's healthy future



Take into account your needed returns

Don't take unintended risks by automatically rebalancing your portfolio

Think about liquidity in dollar terms to meet benefit payment needs

RETURNS

Higher returns are always helpful but need to balance risk and liquidity

RISK

Expressed as impact to funded status and ability to make contributions

LIQUIDITY

Need to be able to meet future benefit payments without selling assets at unintended times

You need to have these conversations now

Q&A

EXPERIENCE

- We have been successfully helping clients manage risk, return, and liquidity since 2003

EXPERTISE

- Our significant market experience means clients have achieved value

EFFECTIVE

- We make it easy for clients and efficient for their advisors

Important Performance and Legal Information

CONFIDENTIAL INFORMATION: The information herein has been provided solely to the addressee in connection with a presentation by River and Mercantile LLC dba River and Mercantile Solutions or River and Mercantile Derivatives, on condition that it not be shared, copied, circulated or otherwise disclosed to any person without the express consent of River and Mercantile LLC.

INVESTMENT ADVISOR: Investment advisory services are provided by River and Mercantile LLC (dba River and Mercantile Solutions or River and Mercantile Derivatives), an investment advisor registered with the US Securities and Exchange Commission and the National Futures Association. Derivative portfolio collateral management is provided by River and Mercantile Investments Limited (dba River and Mercantile Derivatives or River and Mercantile Group), a UK-based affiliate of River and Mercantile LLC regulated by the Financial Conduct Authority.

PAST PERFORMANCE IS NOT AN INDICATION OF FUTURE RESULTS.

SECURITY INDICES: This presentation includes data related to the performance of various securities indices. The performance of securities indices is not subject to fees and expenses associated with investment funds. Investments cannot be made directly in the indices. The information provided has been obtained from sources which River and Mercantile LLC believes to be reasonably reliable but cannot guarantee its accuracy or completeness.

The information expressed has been provided in good faith and has been prepared using sources considered to be reasonable and appropriate. While this information from third parties is believed to be reliable, no representations, guarantees or warranties are made as to the accuracy of information presented, and no responsibility or liability can be accepted for any error, omission or inaccuracy in respect of this. This document may also include our views and expectations, which cannot be taken as fact. The value of investments and any income generated may go down as well as up and is not guaranteed. An investor may not get back the amount originally invested. Actual past performance is not a guide to future results. Changes in exchange and other market rates may have an adverse effect on the value, price or income of investments.

The information and opinions contained in this document are subject to updating and verification and may be subject to amendment. The information and opinions do not purport to be full or complete. No representation, warranty, or undertaking, express or limited, is given as to the accuracy or completeness of the information or opinions contained in this document by River and Mercantile LLC.

Issued by River and Mercantile LLC

A River and Mercantile Group Company

130 Turner Street, Bldg 3, Suite 510, Waltham, MA 02453

Telephone: 781.373.6900

Facsimile: 781.373.6902

Email: usa@riverandmercantile.com

www.riverandmercantile.us/solutions

RIVER AND MERCANTILE GROUP