COLLEGE SAVINGS PLANS NETWORK
A Network of the National Association of State Treasurers

2023 Virtual CSPN Prepaid Tuition Plan Mini Conference

February 28 – March 1 | 1pm - 5 pm (ET)

NATIONAL ASSOCIATION OF STATE TREASURERS

Welcome from the CSPN Chair

Chair of the College Savings Plans Network

Rachel Biar,
Assistant State Treasurer for the Nebraska 529 College Savings Program

Meet your hosts

Prepaid Committee Co-Chairs

G. Alisa Ferguson, Associate General Counsel & ABLEnow Program Manager Virginia529

Luke Minor, Director Washington College Savings Plans (WA529)

Today's primetime lineup

Day 1 Agenda (February 28)	
1:00pm – 1:15pm	**Welcome and Overview** – Prepaid Co-Chairs: Alisa Ferguson, Virginia529 and Luke Minor, WA529
1:15pm – 1:20pm	Break
1:20pm – 2:30pm	**Growing Pains – Lessons Learned** *Moderator:* Chris McGee, Virginia529 *Panelists:* Treasurer Young Boozer, Alabama; Mary Morris, Virginia529
2:30pm – 2:40pm	Break
2:40pm – 3:50pm	**Prepaid Plans – The Next Generation** *Moderator:* Soohyang Lee, AKF Consulting *Panelists:* Linda Fernandez, Texas Comptroller's Office; Alan Perry, Milliman; Glenn Ross, Marquette Associates
3:50pm – 4:00pm	Break
4:00pm – 5:00pm	**CSPN Prepaid Committee Meeting**

What's playing tomorrow

Day 2 Agenda (March 1)

1:00pm – 1:15pm	**Recap of Day 1** – Alisa Ferguson, Virgina529 and Luke Minor, WA529
1:15pm – 2:30pm	**The Neverending Story – Controlling the Message Year-After Year** *Moderator:* Lael Oldmixon, Alaska 529 *Panelists:* Dr. Tya R. Mathis-Coleman, Nevada State Treasurer's Office; Jackie Ferrado, WA529; Heather Barthelmes, Michigan Education Trust
2:30pm – 2:40pm	Break
2:40pm – 3:50pm	**Risky Business – Prepaid Operational Risk Management** *Facilitator:* Sherri Wyatt, Virginia529 *Presenters:* Will Thompson, Florida Prepaid College Board; Rick Stierwalt, Catalis; Jason Schlenker, Inktel Contact Center Solutions
3:50pm – 4:00pm	**Closing Remarks** – Alisa and Luke
4:00pm – 5:00pm	**BONUS Session: Networking**

Prepaid plan status board

12 Open Plans		6 Closed Funded Plans	3 Closed Depleted Plans
Alaska	Nevada	Alabama	Colorado
Florida	Pennsylvania	Illinois	Tennessee
Massachusetts	Private College 529	Kentucky	West Virginia
Maryland	Texas	Ohio	
Michigan	Virginia	South Carolina	
Mississippi	Washington	Texas	

Resource: See 2022 Prepaid "one-pager"

Purchase models

- **Contract**
  - Commit to purchasing a certain number of years at a fixed price
- **Certificate**
  - Purchase tuition certificates redeemable at specific institutions
- **Unit**
  - Buy fractional years of tuition (tuition units) at the rate in effect at the time of the purchase
- **Credit**
  - Pre-purchase actual college credits at the current credit rate
- **Hybrid**
  - May include one of the types above, combined with an investment portfolio

Pricing structures

- **Age-based pricing vs. single price**
  - Some states offer pricing aligned with a beneficiary’s age or expected holding period
  - Some states offer a single price for all age cohorts

- **Institution type vs. single price**
  - Some states offer various tiers allowing families to buy, for example, a community college plan or a 4-year university plan
  - Some states offer a single price for all intended uses

Payment terms

- **Single lump sum purchase (available in most types)**

- **Pay-as-you go (more common in unit or credit plans)**

- **Fixed monthly installments over a selected term (more common in contract plans, but also offered in some unit plans)**

Payout/redemption models

- **Institution-based payouts with alternative payout for out-of-state and/or non-public institution attendance**
  - Alternative payout examples: weighted average tuition, alternative minimum payout (principal + interest), investment earnings if in a hybrid plan, etc.

- **Single payout no matter where benefits used**
- **Refunds or alternative payout mechanisms often used when benefits withdrawn for non-qualified purposes**

Now let's get this party started…

Session #1
Growing Pains – Lessons Learned

- Moderator:
  - Chris McGee, Virginia529
- Panelists:
  - Treasurer Young Boozer, Alabama
  - Mary Morris, Virginia529

The Safe Landing of the Alabama Prepaid Affordable College Tuition Plan (PACT)

Young Boozer, Alabama State Treasurer

PACT Boarding

- Blueprint: Contract for 135 tuition hours, 8 semesters of qualified fees
- Initial Flight Takeoff: 14,582 Contracts Sold 1990
- Engine Trouble Detected : Actuarial Report September 2008
  - “The current deficit of 67.2% is severe, and the Board must take immediate, significant and material action to ensure that all PACT beneficiaries receive their benefits.”

Perfect Storm = Inflight Emergency:

- Tuition Increases: 13%
- Investment Return: -19.16%
- Largest # of PACT Students Enrolled: 18,696
- Drop in cabin pressure from 97.60% funded status to 67.2%
- # Students waiting to board: 32,861

Began a Holding Flight Pattern

- Considerations:
  - Use of stimulus monies
  - Legislation to provide funding
  - Provide monies to the schools and they assume liability
  - Refund purchase price
  - Numerous scenarios: full payment to some, others partial
- Hijackers stormed the cockpit with multiple lawsuits
- Fuel dumping began with 4,914 contract cancellations from 2009-2011

New Flight Plan Created

- New flight plan was created in the form of a class action settlement dependent on $ 547.6 million appropriated from the Legislature:

  - PACT payment made at the 2010 tuition and fee rates
  - Purchasers pay the difference in actual and PACT payment
  - Annual increases allowed if actuarially sound

- Final flight plan (settlement agreement) signed May 2011

- Effective April 2013 – confirmed by Alabama Supreme Court

Descent Began

- Since the settlement, PACT payments have been increased as follows:

2015	3%
2016	6%
2017	8%
2018	7%
2019	7%
2020	7%
2021	10%
2022	24%

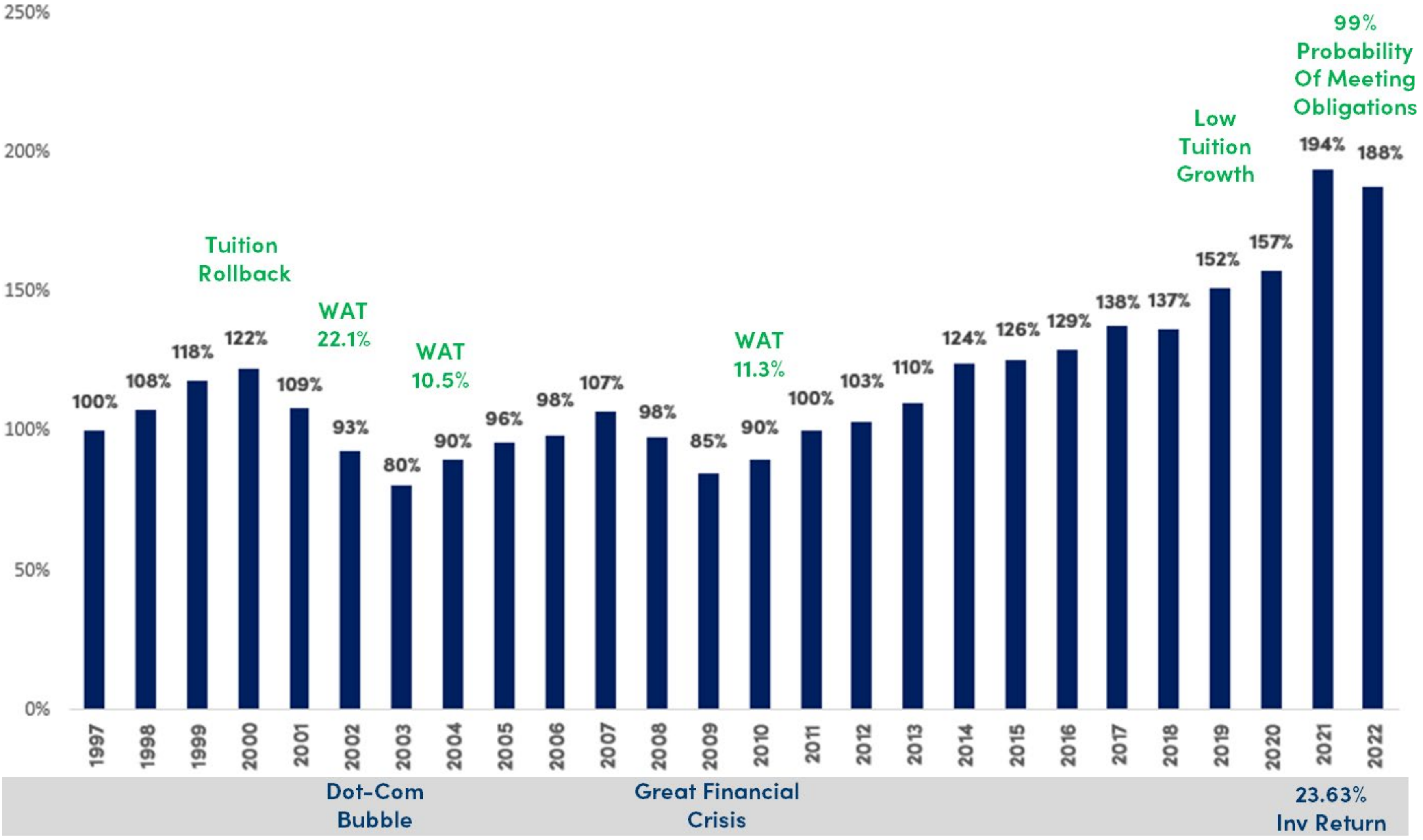
Safe Landing

- Funded Status 179.8%
- All schools should receive full tuition and qualified fees
- The last beneficiary should deplane in 2032

Destination for all passengers = graduation

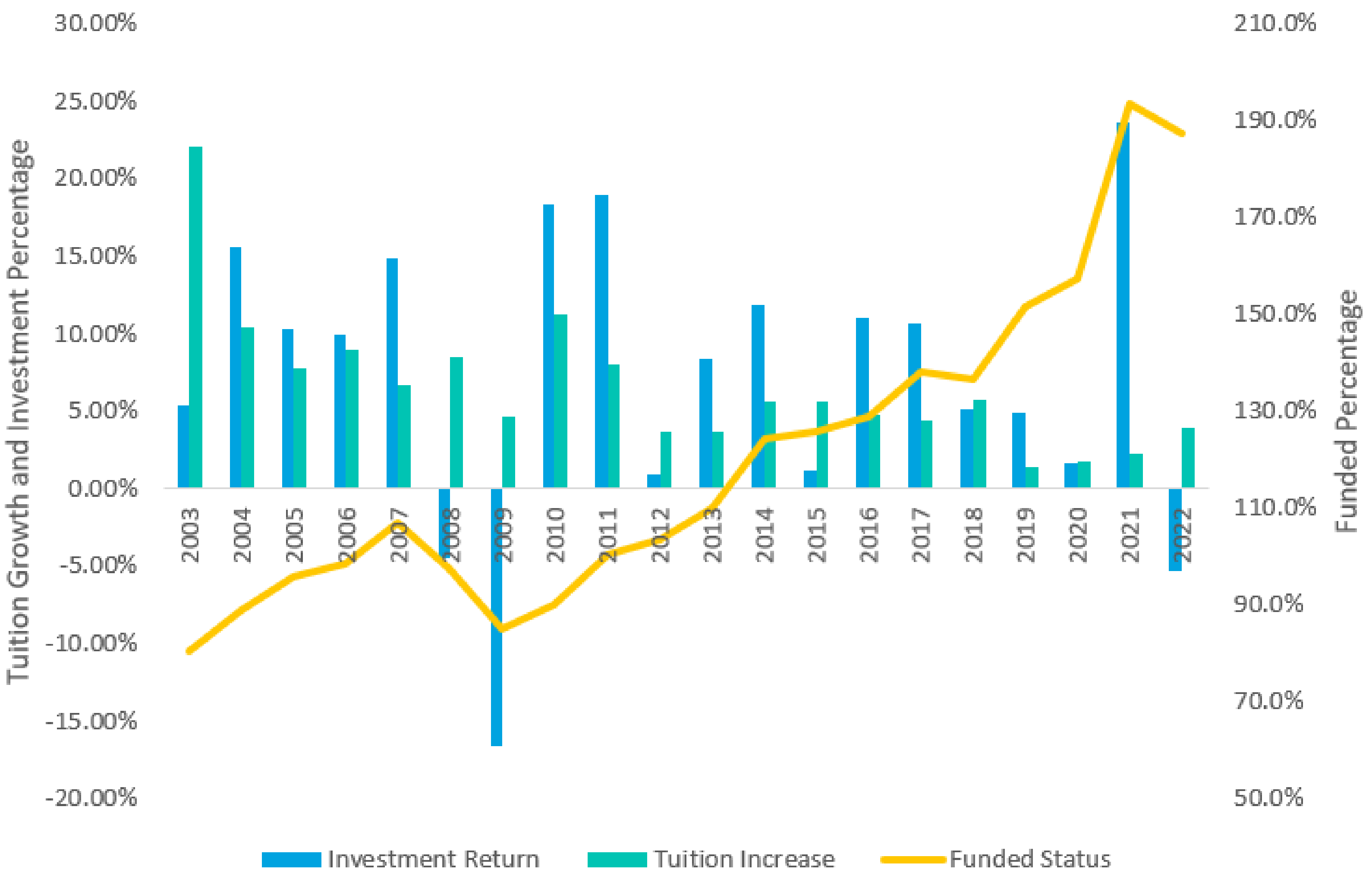

Virginia529℠
CSPN 2023 Prepaid Mini-con
Growing Pains - Challenges of Successful Stewardship
Mary G. Morris, CEO
February 28, 2023

DB529 Historical Actuarial Funded Status (all as of June 30)



*WAT – Weighted Average Tuition for Virginia 4-year public institutions

Tuition, Investment Return & Funded Status Relationship



Funded Status vs. Actuarial Probability

- The actuarial probability of meeting obligations is not a static relationship to the funded status
- A proposal to reduce to a 125% funded status provides a 90% actuarial probability of meeting all future obligations
- VA529 resists a designated optimum funded status; considers also the NAIC insurance model – Risk Based Capital (RBC) ratio

	Actuarially Funded Percentage	Probability of Meeting Obligations
	80%	6%
	90%	24%
	100%	50%
	110%	72%
	120%	86%
JLARC Rec	125%	90%
	130%	94%
	140%	98%
	150%	99%
	160%	99%
6/30/2022	187.5%	99%

*Data compiled from actuarial valuation reports by VA529's actuary

Virginia529

A Brief Recent History: 2015-2022

2015-16

- Sustainability Study Authorized by VA529 Board
- White Paper – develop WAT (weighted average tuition) model

2017-18

- GRS Quadrennial Audit – suggest reducing pricing reserve – too conservative
- VA529 legislation to authorize retooling benefit structure – JLARC review of assumptions
- JLARC-inspired legislation to limit pricing reserve (n/a after 2019 when program closed)

2019-2020

- JLARC 2018 report – supported retooling prepaid tuition program per VA529 recommendation
- Prepaid529 closed to new entrants – developed Tuition Track Portfolio (TTP) – single benefit model (affordable/flexible/certain/simple)

2021-2022

- GRS Quadrennial Audit – all assumptions are reasonable – BUT, question whether tuition assumption too high
- JLARC study resolution: "*extent to which Prepaid529 surplus funds can be used to support higher education access and affordability in Virginia*"
- November 2022 Report and Recommendations

JLARC Recommendations and VA529 Board Response

Fall 2022
- VA529 *ad hoc* committee – review risk model and potential for access initiatives
- Developed Comprehensive Risk Model (actuarial funded status AND NAIC Insurance Model)

NOV 2022
- JLARC Report and Recommendations
- VA529 Response to Report
- Presentations to Commission – VA529 promise to provide legislative proposal in 2023

DEC 2022
- VA529 Board adopted Comprehensive Risk Policy
- Draft legislative proposal to authorize enhanced Prepaid529 benefits AND additional resources to access
- VA529 Board approved legislative proposal

JAN-FEB 2023
- 2023 General Assembly Session: Competing Visions for DB529 Fund – VA529 Proposal and JLARC centric Senate Proposal
- Current Status

Board Leadership

Lauren Kent Stack – Board Chair

Independent Trustee, Six Circle Funds
- Appointed 8/9/19

Peter A. Blake
Director, State Council of Higher Education
- Ex-Officio Member

Dr. Elliot J. Dubin

Policy Research Director (ret), Multi-State Tax Commission
- Appointed 8/4/21

Dr. Craig Herndon

Vice Chancellor, VCCS
- Ex-Officio Member
- Designee for Dr. Sharon Morrissey, Interim Chancellor VCCS

Dante Jackson – Vice Chair

Vice President, Atlantic Union Private Bank
- Appointed 7/10/20

Lisa N. Jennings
Chief Financial Officer, Spirit of Virginia
- Appointed 7/12/22

Lewis R. McCabe

State Comptroller, Virginia Department of Accounts
- Ex-Officio Member

David L. Richardson

Treasurer of Virginia
- Ex-Officio Member

Reggie Samuel
Investment Manager, Leumas Group
- Appointed 8/5/15

Hon. Walter A. Stosch
Virginia State Senator (ret)
- Appointed 4/5/17

Mary G. Morris

CEO, Virginia529

Actions of Virginia529 Board

2020
- Stop allocations of net operating revenues to DB529 Fund
- Affirm support of access and affordability initiatives

2021
- Authorize funding for access and affordability initiatives
- Open TTP in February
- Begin study of DB529 Fund – opportunities

2022
- Continue study of DB529 opportunities
- Develop Comprehensive Risk Policy
- Authorize 2023 legislation to authorize enhanced benefits and enhanced access

2023
- Support legislative efforts with General Assembly- ongoing
- Continue decision making on enhanced benefits and access expansion
- TBD: Develop legislative champions for 2024

Legislative DB529 Fund (Prepaid529 + Tuition Track Portfolio)

Spring-Fall 2022

- **Report Development**
  - VA529 provided extensive data to JLARC including stress testing, actuarial projections and analysis, and review of potential legal liability
  - JLARC engaged a law firm, investment consultant and actuarial consultant (paid for by VA529) to advise them

NOV 2022

- **Report Published**
  - Variety of policy options for DB529 Fund, including access and affordability and Prepaid529 benefits enhancements
  - Recommended establishing independent committee with the power to compel removal of over $1B
    - Based on perceived excess caution and conservatism of VA529 Board

JAN/FEB 2023

- **2023 General Assembly Session**
  - HB 2396/SB 1519 (VA529 request) – authority to expand access and affordability work *and* enhance/supplement Prepaid529 benefits.
  - SB 1461 (Surovell) - JLARC-inspired independent committee to direct removal of $1.25B from the DB529 Fund to be used exclusively for scholarships at certain 4-year public universities.
  - Session ended February 25, 2023 with no legislative changes

2023 Legislative Comparison

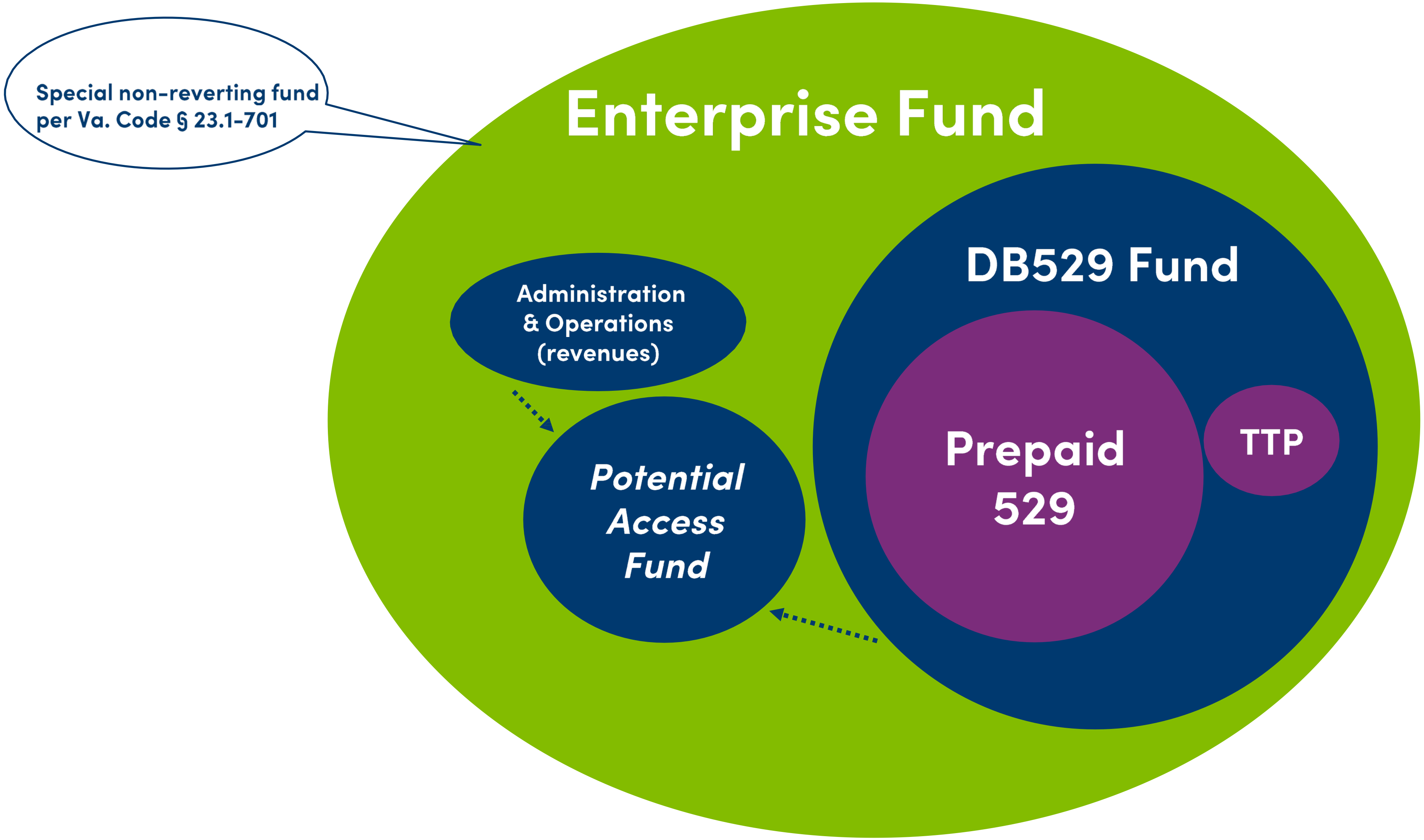
SB1519/HB2396	SB1461
• Statutory authority to enhance/supplement Prepaid529 benefits	• Creates two additional layers of administration independent advisory committee to compel divesting DB529 Funds and agency to develop university scholarship program
• Acknowledge fiduciary obligations of prudent stewardship of DB529 Funds	• Ignores Prepaid529 customers
• Special non-reverting fund remains intact	• Alters statutory special non-reverting fund
• Affirm and expand education access & affordability partnerships	• Narrowly addresses education access initiatives, ignoring workforce training, community colleges and advising

Virginia529's Commitment to Higher Education Access & Affordability

- Since 1996, statutory directive to enhance accessibility and affordability of higher education for all citizens of the Commonwealth
- 2009: Implemented SOAR Virginia scholarship program as a pilot; permanent program in 2015
- 2020: Expanded access and affordability commitment with $13.5 million commitment to proven partners to serve students across Virginia
- Seven nonprofit and state government partners for new access initiatives, three year agreements.

Workforce Development	Scholarships And Grants	Mentoring and Coaching
Virginia's Community Colleges	THE VIRGINIA FOUNDATION for COMMUNITY COLLEGE EDUCATION	UNIVERSITY of VIRGINIA VIRGINIA COLLEGE ADVISING CORPS Communities In Schools Richmond GRASP
	GEAR UP Virginia	
valhen		

Virginia529 Proposal: Establishing a Permanent Education Access Fund



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The Virginia College Savings Plan is unable to provide specific tax, legal or financial advice.

Investors are encouraged to call 1-888-567-0540 or visit Virginia529.com to obtain Program Descriptions and read all enrollment materials before investing. An investor should carefully consider investment objectives, risks, charges and expenses of the programs before investing. For non-Virginia residents: before investing, consider whether you
or the beneficiary's home state offers any state tax or other state benefits such as financial aid, scholarship funds and protections from creditors that are only available for investments in that state's qualified tuition program.

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Questions?

- Contact for Moderator:
  - Chris McGee, Virginia529 – CMcGee@virginia529.com

- Contact for Panelists:
  - Treasurer Young Boozer, Alabama Young.Boozer@treasury.alabama.gov

  - Mary Morris, Virginia529 – MMorris@virginia529.com

Next up…where no one has gone before…

Session #2:

Prepaid Plans – The Next Generation

- Moderator:
  - Soohyang Lee, AKF Consulting

- Panelists:
  - Linda Fernandez, Texas Comptroller's Office
  - Alan Perry, Milliman, Inc.
  - Glenn Ross, Marquette Associates

Market Environment Q4 2022

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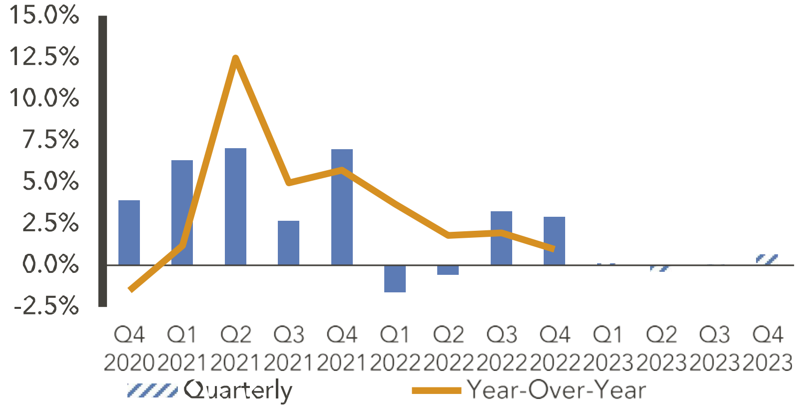
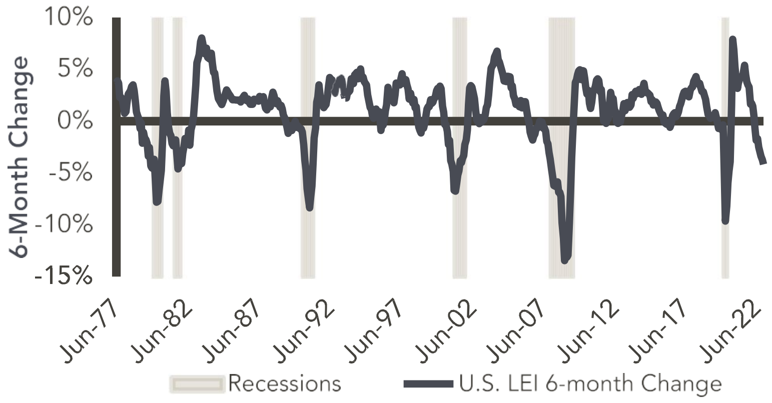
U.S. Economy

- U.S. real GDP grew by 2.9% in Q4. The headline number, however, appears to overstate the strength of the economy at the end of 2022.
- Real final sales to private domestic purchasers, which excludes net exports, inventories and government spending and is seen as a broad measure of U.S. economic demand, saw its lowest increase since the 2020 recession at just 0.2%.
- While economic growth was positive in both Q3 and Q4, following negative prints in Q1 and Q2, the economy appears to remain in a precarious position heading into 2023 based on leading economic indicators.
- Through December, The Conference Board's U.S. Leading Economic Indicators Index declined 4.2% over the previous six months largely due to weakness in manufacturing and housing indicators. A decline of this magnitude has consistently signaled a pending economic recession dating back to the mid-70s.

U.S. Real GDP Growth



U.S. Leading Economic Indicators and U.S. Recessions

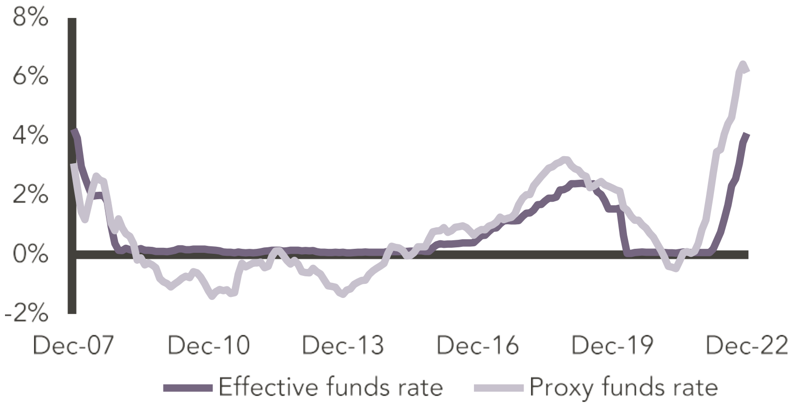


Source: Refinitiv, The Wall Street Journal
Note: In the "Real GDP Growth" chart, striped bars reflect economist estimates from *The Wall Street Journal Economic Forecasting Survey.*

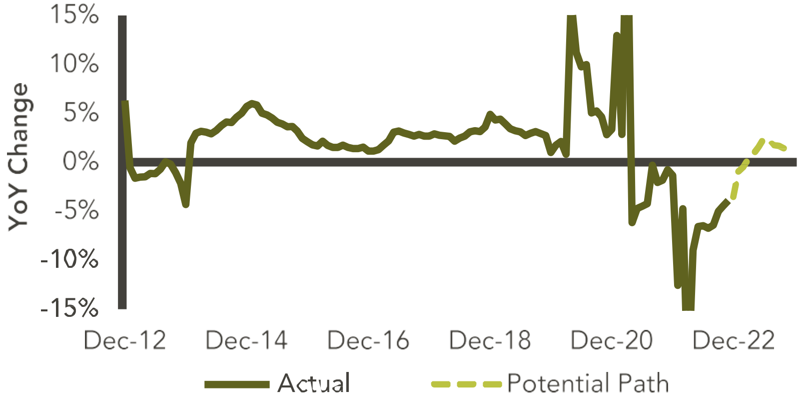
U.S. Economy

- Despite the uncertain economic outlook, the Federal Reserve continued to raise short-term rates in Q4, albeit at a slower pace in December, to bring down inflation via tighter monetary policy. Further, the central bank balance sheet continues to contract amid its quantitative tightening program.
- A recent paper by the Federal Reserve Bank of San Francisco argued that current monetary policy is much tighter than the Fed Funds Rate implies. Taking into account public and private borrowing rates and spreads to infer the broader stance of monetary policy, their analysis calculates a Fed Funds Proxy Rate at more than 6.1%, or 200 basis points higher than the actual rate.
- While inflation remains uncomfortably high on a year-over-year basis, recent monthly data have cooled meaningfully. If inflation is 3.1% in 2023, as the Federal Reserve forecasts and disposable income rises at its pre-pandemic trend, real disposable income may turn positive on a year-over-year basis in a few months, which should help support consumer spending in the back half of 2023.

Historical Fed Funds Rate vs. Fed Funds Proxy Rate



Real Disposable Income

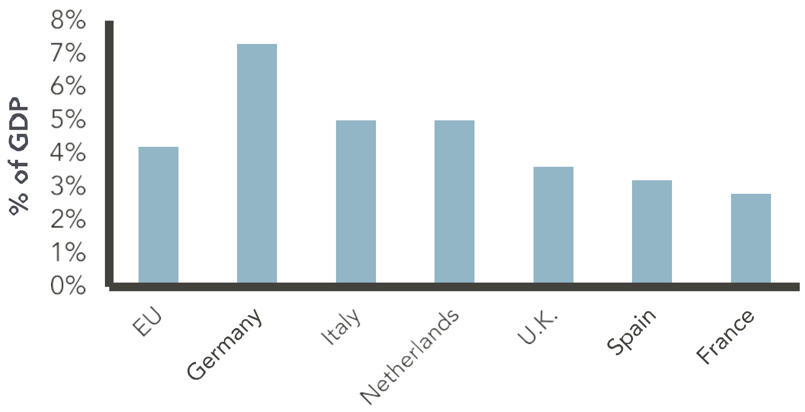


Source: Federal Reserve Bank of San Francisco, Refinitiv

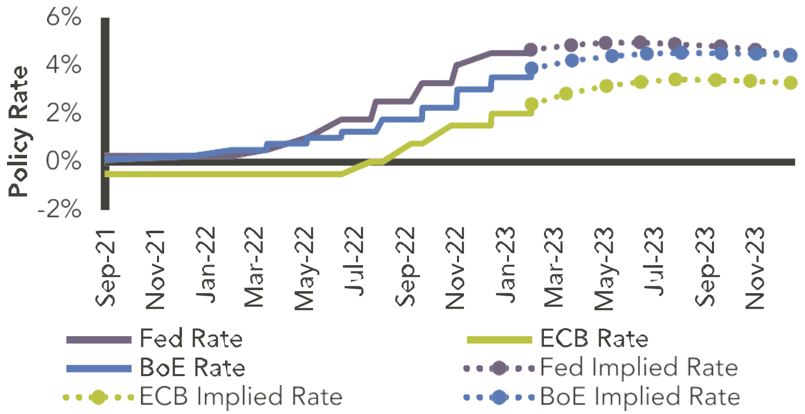
Global Economy

- The economic outlook in Europe has improved meaningfully amid mild winter weather and fiscal support to consumers to help offset rising energy costs.
- Similar to the Federal Reserve, the European Central Bank and the Bank of England are expected to continue raising short-term rates in the coming months in an effort to combat inflation.
- Outside of the U.S. and Europe, the key question for the global economy is how China's economic growth will unfold in the coming quarters amid the relaxation of its zero-COVID policy.
- While China reported stronger-than-expected economic data in Q4, there is growing evidence the country is experiencing a surge in COVID cases. This could have an impact on supply chains and demand in the short-term, while improving the intermediate- and long-term economic outlook as its population builds immunity to the virus.

Fiscal Support to Shield Households and Firms from Rising Energy Cost



Projected Rate Hikes in 2023

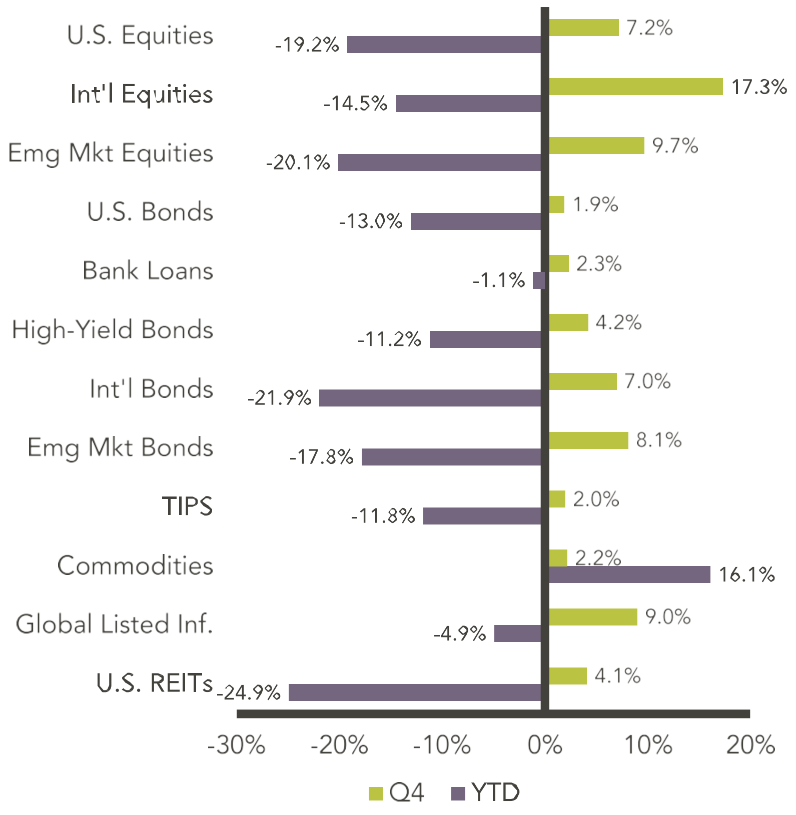


Source: KKR, Refinitiv

Global Asset Class Performance

- **Global equities** reversed course in Q4, December notwithstanding, recouping some of the lost ground from the first nine months of 2022. U.S. equities underperformed their international developed and emerging market counterparts, with the former topping U.S. equities by more than ten percentage points. U.S. dollar weakness added to gains for unhedged U.S.-based investors, with the greenback contributing approximately 8.6 and 3.1 percentage points, respectively, to international developed and emerging markets returns.
- **Fixed income** returns were also positive in Q4, with lower-rated bonds outperforming amid a strong environment for risk assets. High Yield outperformed Bank Loans during the quarter thanks to its longer duration.
- **Inflation-sensitive assets** returns were also in the black. TIPS slightly outperformed nominal bonds, while commodities posted mild gains. REITs lagged the broad U.S. equity market in Q4. Finally, global listed infrastructure equities largely kept pace with global equities, ending the quarter less than one percentage point behind the broad global market.

Asset Class Returns: Select Asset Class Performance

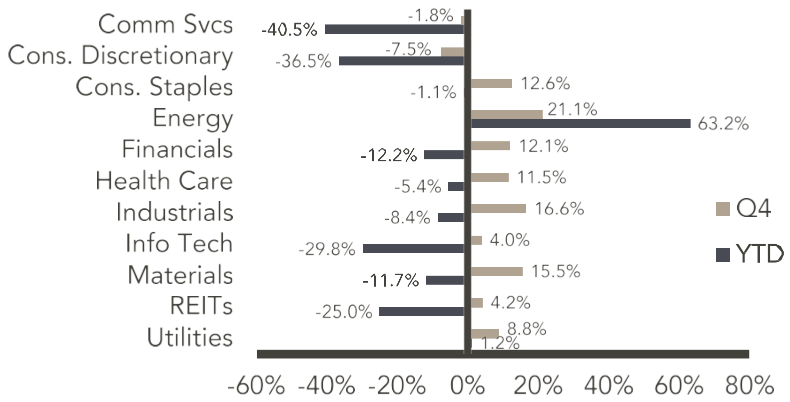


Source: Markov Processes International

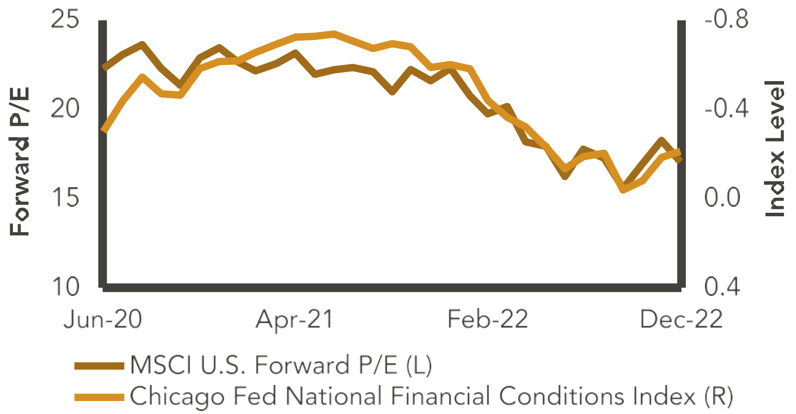
U.S. Equity Markets

- Most economic sectors posted positive returns for the quarter, with Communications Services and Consumer Discretionary the lone sectors in the red due to negative returns from mega-cap stocks Alphabet and Amazon, respectively. Energy continued to outperform in Q4, leaving its 2022 return at 63.2%, or more than 82 percentage points ahead of the broad market.
- Value stocks topped growth stocks during the quarter across the capitalization spectrum, with large-cap value the best-performing equity style. For the year, value stocks outperformed growth stocks by 21 percentage points (as measured by the Russell 3000 Value Index vs. the Russell 3000 Growth Index) amid rising interest rates and the underperformance of many mega-cap tech stocks.
- Financial conditions eased in Q4 after tightening rapidly in the first nine months of the year. The easing prompted an expansion in equity valuation multiples, which rose more than 9% (as measured by the Forward P/E ratio) and more than offset a difficult corporate earnings environment.

Sector Returns



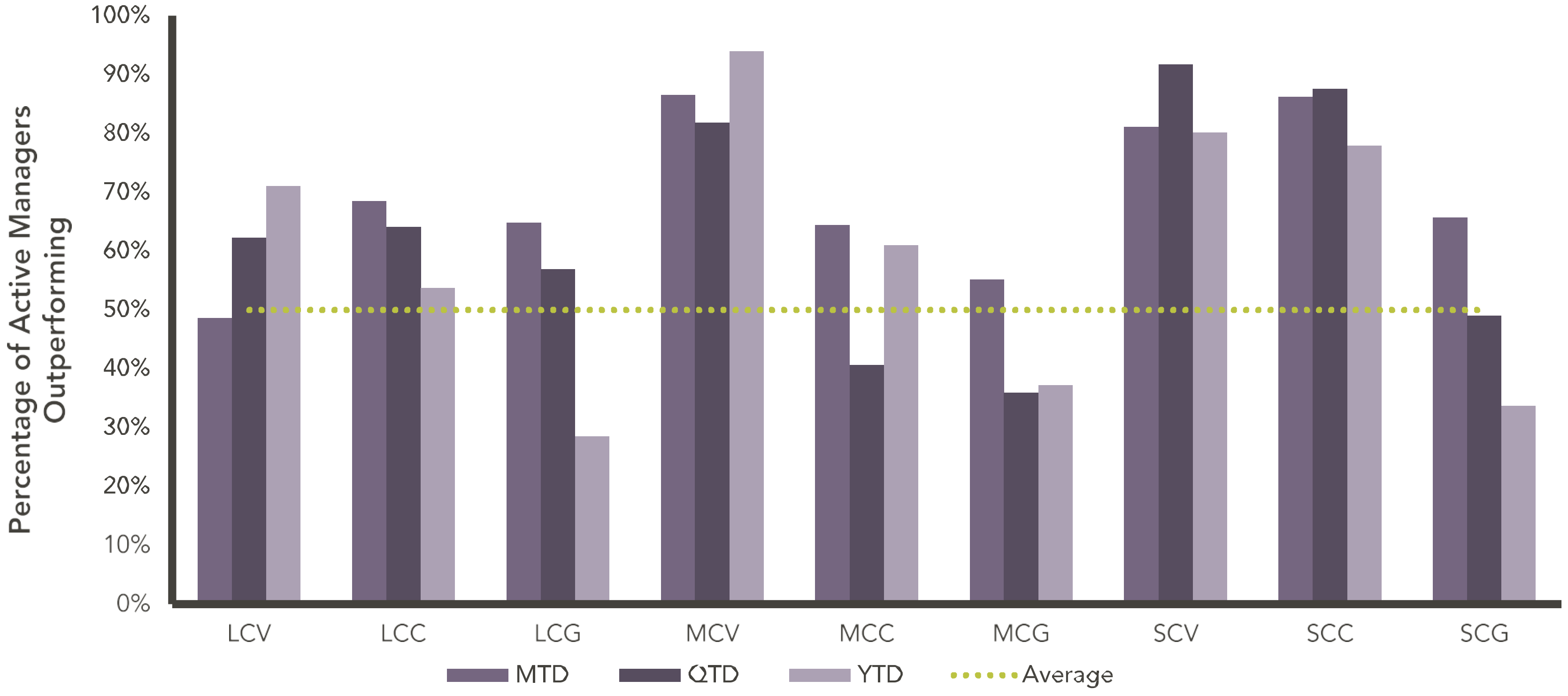
Forward P/E vs. Financial Conditions



Source: Federal Reserve Bank of St. Louis, Markov Processes International, Refinitiv

Active manager performance

Active managers outperformed across most asset classes in December; overall, growth-focused active managers struggled in 2022

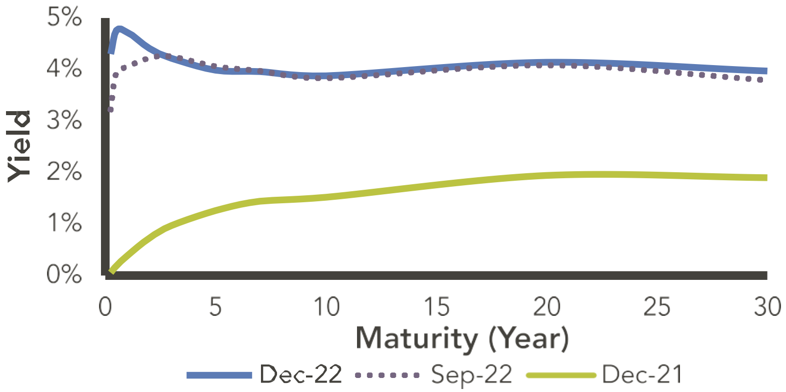


Source: Morningstar Direct as of December 31, 2022

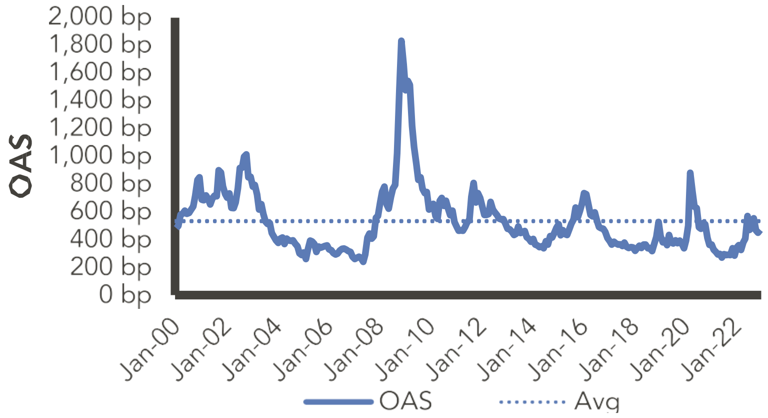
U.S. Fixed Income

- Interest rates continued to rise on the short end of the Treasury curve in Q4, though intermediate- and long-term rates were relative stable. This dynamic led to deeper inversions across various segments across the curve amid the prospects of tighter monetary policy and economic uncertainty.
- The bond market posted a positive return in Q4 for the first time in 2022, with the Bloomberg Aggregate Bond Index returning 1.9%. Year-to-date, however, the index posted a return of -13.0%, making 2022 its worst calendar year since the inception of the index in the mid-1970s.
- Sub-investment grade debt outperformed their investment-grade counterparts. High yield outperformed amid tightening spreads and its longer duration compared to Bank Loans. The latter lagged high yield due to their floating-rate characteristics.

Yield Curve



High Yield Spread



Source: Refinitiv

Global Index Returns Summary

U.S. Equity Returns

	Dec	YTD	1 Yr
S&P 500	-5.8%	-18.1%	-18.1%
Russell 3000	-5.9%	-19.2%	-19.2%
NASDAQ	-8.7%	-32.5%	-32.5%
Dow Jones	-4.1%	-6.9%	-6.9%

Non-U.S. Equity Returns

	Dec	YTD	1 Yr
ACWI	-3.9%	-18.4%	-18.4%
ACWI ex. US	-0.7%	-16.0%	-16.0%
EAFE Index	0.1%	-14.5%	-14.5%
EAFE Local	-3.0%	-7.0%	-7.0%
EAFE Growth	-1.1%	-22.9%	-22.9%
EAFE Value	1.3%	-5.6%	-5.6%
EAFE Small Cap	1.1%	-21.4%	-21.4%
Emerging Markets	-1.4%	-20.1%	-20.1%
EM Small Cap	-1.0%	-18.0%	-18.0%

Regional Returns

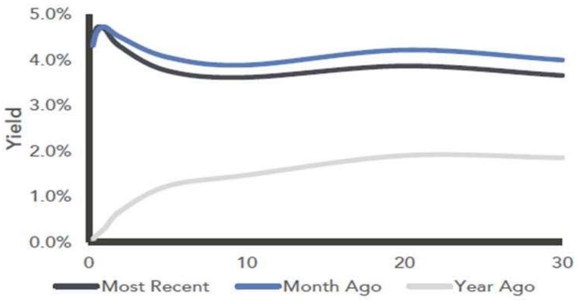
	Dec	YTD	1 Yr
Europe	0.1%	-17.0%	-17.0%
Asia ex-Japan	-0.2%	-19.7%	-19.7%
EM Latin America	-4.0%	8.9%	8.9%
UK	-0.4%	-4.8%	-4.8%
Germany	0.0%	-22.3%	-22.3%
France	-0.2%	-13.3%	-13.3%
Japan	0.3%	-16.6%	-16.6%
China	5.2%	-21.9%	-21.9%
Brazil	-3.0%	14.2%	14.2%
India	-5.5%	-8.0%	-8.0%

Real Estate Returns

	Qtr	YTD	1 Yr
NCREIF NPI National*	0.6%	16.1%	16.1%
FTSE NAREIT	4.5%	-25.1%	-25.1%

*Returns as of September 30, 2022

Yield Curve



Style Index Returns

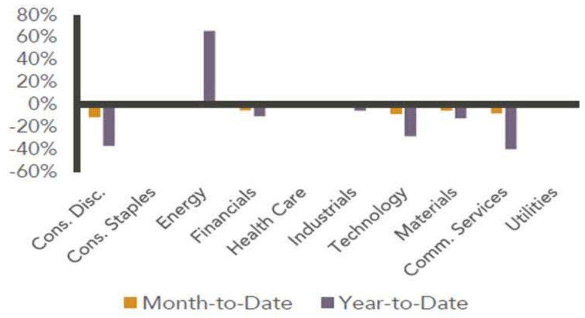
Month-to-Date

	Value	Core	Growth
Large	-4.0%	-5.8%	-7.7%
Mid	-5.1%	-5.4%	-6.0%
Small	-6.6%	-6.5%	-6.4%

Year-to-Date

	Value	Core	Growth
Large	-7.5%	-19.1%	-29.1%
Mid	-12.0%	-17.3%	-26.7%
Small	-14.5%	-20.4%	-26.4%

U.S. Equity Sector Returns



Fixed Income Returns

	Dec	YTD	1 Yr
Aggregate	-0.5%	-13.0%	-13.0%
Universal	-0.3%	-13.0%	-13.0%
Government	-0.5%	-12.3%	-12.3%
Treasury	-0.5%	-12.5%	-12.5%
Int. Gov/Credit	-0.2%	-8.2%	-8.2%
Long Gov/Credit	-1.4%	-27.1%	-27.1%
TIPS	-1.0%	-11.8%	-11.8%
Municipal 5 Year	0.5%	-5.3%	-5.3%
High Yield	-0.6%	-11.2%	-11.2%
Bank Loans	0.4%	-1.1%	-1.1%
Global Hedged	-1.2%	-11.2%	-11.2%
EM Debt Hard Currency	0.3%	-17.8%	-17.8%

Hedge Fund Returns*

	Dec	YTD	1 Yr
HFRX Global	-0.1%	-4.4%	-4.4%
HFRX Hedged Equity	-0.1%	-3.2%	-3.2%
HFRX Event Driven	-0.2%	-7.3%	-7.3%
HFRX Macro	0.0%	3.7%	3.7%
HFRX Relative Value	0.0%	-7.7%	-7.7%
CBOE PutWrite	-0.4%	-7.7%	-7.7%

*HFRX returns as of December 31, 2022

Commodity Returns

	Dec	YTD	1 Yr
GSCI Total	-1.4%	26.0%	26.0%
Precious Metals	5.7%	0.1%	0.1%
Livestock	2.2%	7.4%	7.4%
Industrial Metals	2.2%	-2.4%	-2.4%
Energy	-12.2%	36.2%	36.2%
Agriculture	1.6%	15.5%	15.5%
WTI Crude Oil	-0.2%	24.9%	24.9%
Gold	4.1%	-0.7%	-0.7%

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Asset Class Outlook

		CHANGE	HEADWINDS		NEUTRAL	TAILWINDS	
Fixed Income	Core bonds		□	□	□	■	□
	Bank loans	▼	□	□	■	□	□
	High yield		□	□	□	■	□
	EMD		□	□	■	□	□
U.S. Equities	Large-cap		□	□	■	□	□
	Mid-cap		□	□	■	□	□
	Small-cap		□	■	□	□	□
	Value		□	□	■	□	□
	Growth		□	■	□	□	□
Non-U.S. Equities	Developed large-cap	▲	□	□	■	□	□
	Developed small-cap	▲	□	□	■	□	□
	Emerging markets		□	□	■	□	□
Real Assets	Core real estate		□	■	□	□	□
	Value-add real estate	▼	□	□	■	□	□
	Infrastructure	▼	□	□	■	□	□
Hedge Funds	Equity long/short		□	□	□	■	□
	Credit		□	□	□	■	□
	VRP		□	□	■	□	□
Private Equity	Buyout		□	□	□	■	□
	Venture Capital		□	□	□	■	□
Private Credit	Direct lending		□	□	□	□	■
	Distressed/opportunistic		□	■	□	□	□

TAKEAWAYS

- **Fixed Income**: The all-in yield on the Bloomberg Aggregate remains attractive. Additional return may be realized if interest rates fall during a recession. Investment grade spreads have partially retraced the widening seen in 2022. With growing recession fears, deterioration in underlying quality makes loans less compelling.
- **U.S.**: The perceived safety of large-cap equities may support stocks early in the year as volatility persists. Attractive small-cap and value valuations may set the asset classes up well if the pace of interest rate hikes slows.
- **Non-U.S.**: Poor economic expectations may already be priced into forward-looking markets, though we expect volatility to remain. Potential tailwinds in 2023: historic valuation discount to the S&P 500, higher dividends than U.S. companies, a potential reversal of dollar strength as rate differentials narrow for developed markets.
- **Real Assets**: Continued rate hikes, declining transaction activity, and elevated debt costs will exert downward pressure on near-term real estate pricing. While lending is a short-term headwind for infrastructure, net zero initiatives and supportive legislative measures should support demand for asset class longer-term.
- **Hedge Funds**: Hedge funds can help preserve capital amid volatility and macro uncertainty. Market dispersion and positive returns on collateral improve the outlook for long/short managers. Credit managers are sourcing higher quality paper at attractive yields and preparing for an expanding opportunity set in stressed and distressed.
- **Private Equity:** Large private equity and late-stage venture valuations are most aligned with declining public market valuations. We expect valuations to continue to feel the impact of public market volatility, provided it persists, creating buying opportunities for those with dry powder to invest.
- **Private Credit:** Direct lending is attractive against the backdrop of increased inflation and rising rates, as most loans contain floating interest rates linked to LIBOR/SOFR. Investors benefit from a strong structure and yield premium relative to traditional fixed income. Distressed and opportunistic are challenged in the current market.

For illustration only, as of December 31, 2022. These views apply to a 6- to 12-month horizon; arrows in Change column represent change in view since last quarter. This summary of individual asset class views shows relative direction and strength of conviction but is independent of portfolio construction considerations. These views should not be construed as a recommended portfolio or investment advice. Past performance does not imply future returns.

Global Index Returns

DOMESTIC EQUITY	QTR	YTD	1 Year	3 Year	5 Year	10 Year
S&P 500 Index	7.6	(18.1)	(18.1)	7.7	9.4	12.6
Russell 3000 Index	7.2	(19.2)	(19.2)	7.1	8.8	12.1
Russell 3000 Growth Index	2.3	(29.0)	(29.0)	7.3	10.4	13.8
Russell 3000 Value Index	12.2	(8.0)	(8.0)	5.9	6.5	10.2
Russell TOP 200 Index	6.6	(19.8)	(19.8)	7.9	9.9	12.9
Russell TOP 200 Growth Index	1.1	(29.7)	(29.7)	8.7	11.8	14.9
Russell TOP 200 Value Index	13.4	(5.1)	(5.1)	6.0	7.1	10.4
Russell 1000 Index	7.2	(19.1)	(19.1)	7.3	9.1	12.4
Russell 1000 Growth Index	2.2	(29.1)	(29.1)	7.8	11.0	14.1
Russell 1000 Value Index	12.4	(7.5)	(7.5)	6.0	6.7	10.3
Russell Mid-Cap Index	9.2	(17.3)	(17.3)	5.9	7.1	11.0
Russell Mid-Cap Growth Index	6.9	(26.7)	(26.7)	3.9	7.6	11.4
Russell Mid-Cap Value Index	10.5	(12.0)	(12.0)	5.8	5.7	10.1
Russell 2000 Index	6.2	(20.4)	(20.4)	3.1	4.1	9.0
Russell 2000 Growth Index	4.1	(26.4)	(26.4)	0.6	3.5	9.2
Russell 2000 Value Index	8.4	(14.5)	(14.5)	4.7	4.1	8.5
DOMESTIC EQUITY BY SECTOR (MSCI)						
Communication Services	(1.8)	(40.5)	(40.5)	(3.8)	2.1	5.1
Consumer Discretionary	(7.5)	(36.5)	(36.5)	4.7	7.8	12.3
Consumer Staples	12.6	(1.1)	(1.1)	9.0	8.6	10.9
Energy	21.1	63.2	63.2	19.5	8.4	5.0
Financials	12.1	(12.2)	(12.2)	5.2	5.9	11.7
Health Care	11.5	(5.4)	(5.4)	10.5	11.7	14.8
Industrials	16.6	(8.4)	(8.4)	7.6	6.9	11.8
Information Technology	4.0	(29.8)	(29.8)	10.2	14.8	17.6
Materials	15.5	(11.7)	(11.7)	10.4	6.6	9.4
Real Estate	4.2	(25.0)	(25.0)	0.3	4.5	7.0
Utilities	8.8	1.2	1.2	5.7	9.1	11.0

Source: Markov Processes International

Global Index Returns

INTERNATIONAL/GLOBAL EQUITY	QTR	YTD	1 Year	3 Year	5 Year	10 Year
MSCI EAFE (Net)	17.3	(14.5)	(14.5)	0.9	1.5	4.7
MSCI EAFE Growth (Net)	15.0	(22.9)	(22.9)	0.5	2.5	5.6
MSCI EAFE Value (Net)	19.6	(5.6)	(5.6)	0.6	0.2	3.5
MSCI EAFE Small Cap (Net)	15.8	(21.4)	(21.4)	(0.9)	0.0	6.2
MSCI AC World Index (Net)	9.8	(18.4)	(18.4)	4.0	5.2	8.0
MSCI AC World Index Growth (Net)	5.3	(28.6)	(28.6)	3.8	6.4	9.2
MSCI AC World Index Value (Net)	14.2	(7.5)	(7.5)	3.3	3.5	6.4
MSCI Europe ex UK (Net)	20.1	(18.0)	(18.0)	1.7	2.2	5.2
MSCI United Kingdom (Net)	17.0	(4.8)	(4.8)	0.3	1.0	3.1
MSCI Pacific ex Japan (Net)	15.7	(5.9)	(5.9)	1.6	2.2	3.8
MSCI Japan (Net)	13.2	(16.6)	(16.6)	(1.0)	0.2	5.6
MSCI Emerging Markets (Net)	9.7	(20.1)	(20.1)	(2.7)	(1.4)	1.4

Source: Markov Processes International

Global Index Returns

FIXED INCOME	QTR	YTD	1 Year	3 Year	5 Year	10 Year
Merrill Lynch 3-month T-Bill	0.8	1.5	1.5	0.7	1.3	0.8
Barclays Intermediate Gov't./Credit	1.5	(8.2)	(8.2)	(1.3)	0.7	1.1
Barclays Aggregate Bond	1.9	(13.0)	(13.0)	(2.7)	0.0	1.1
Barclays Short Government	0.7	(1.3)	(1.3)	0.1	1.1	0.7
Barclays Intermediate Government	1.0	(7.7)	(7.7)	(1.4)	0.5	0.7
Barclays Long Government	(0.6)	(29.2)	(29.2)	(7.4)	(2.2)	0.6
Barclays Investment Grade Corp.	3.6	(15.8)	(15.8)	(2.9)	0.5	2.0
Barclays High Yield Corp. Bond	4.2	(11.2)	(11.2)	0.0	2.3	4.0
Credit Suisse Leveraged Loan	2.3	(1.1)	(1.1)	2.3	3.2	3.8
JPMorgan Global ex US Bond	7.0	(21.9)	(21.9)	(7.9)	(4.2)	(2.2)
JPMorgan Emerging Market Bond	8.1	(17.8)	(17.8)	(5.3)	(1.3)	1.6
INFLATION SENSITIVE						
Consumer Price Index	(0.0)	6.5	6.5	4.9	3.8	2.6
BC TIPS	2.0	(11.8)	(11.8)	1.2	2.1	1.1
Commodities	2.2	16.1	16.1	12.7	6.4	(1.3)
Gold	9.5	(0.7)	(0.7)	4.7	5.7	0.0
REITs	4.1	(24.9)	(24.9)	0.2	4.4	7.1
FTSE EPRA/NAREIT Global REITs	6.6	(24.5)	(24.5)	(4.2)	0.3	3.5
NCREIF ODCE*	(5.1)	6.6	6.6	9.0	7.7	9.1
NCREIF Farmland**	2.0	6.2	10.2	6.5	6.3	9.5
NCREIF Timberland**	2.4	7.6	12.6	5.8	4.7	5.9

*Data are preliminary.
**Data are as of September 30, 2022.

Source: Markov Processes International.

Disclosure

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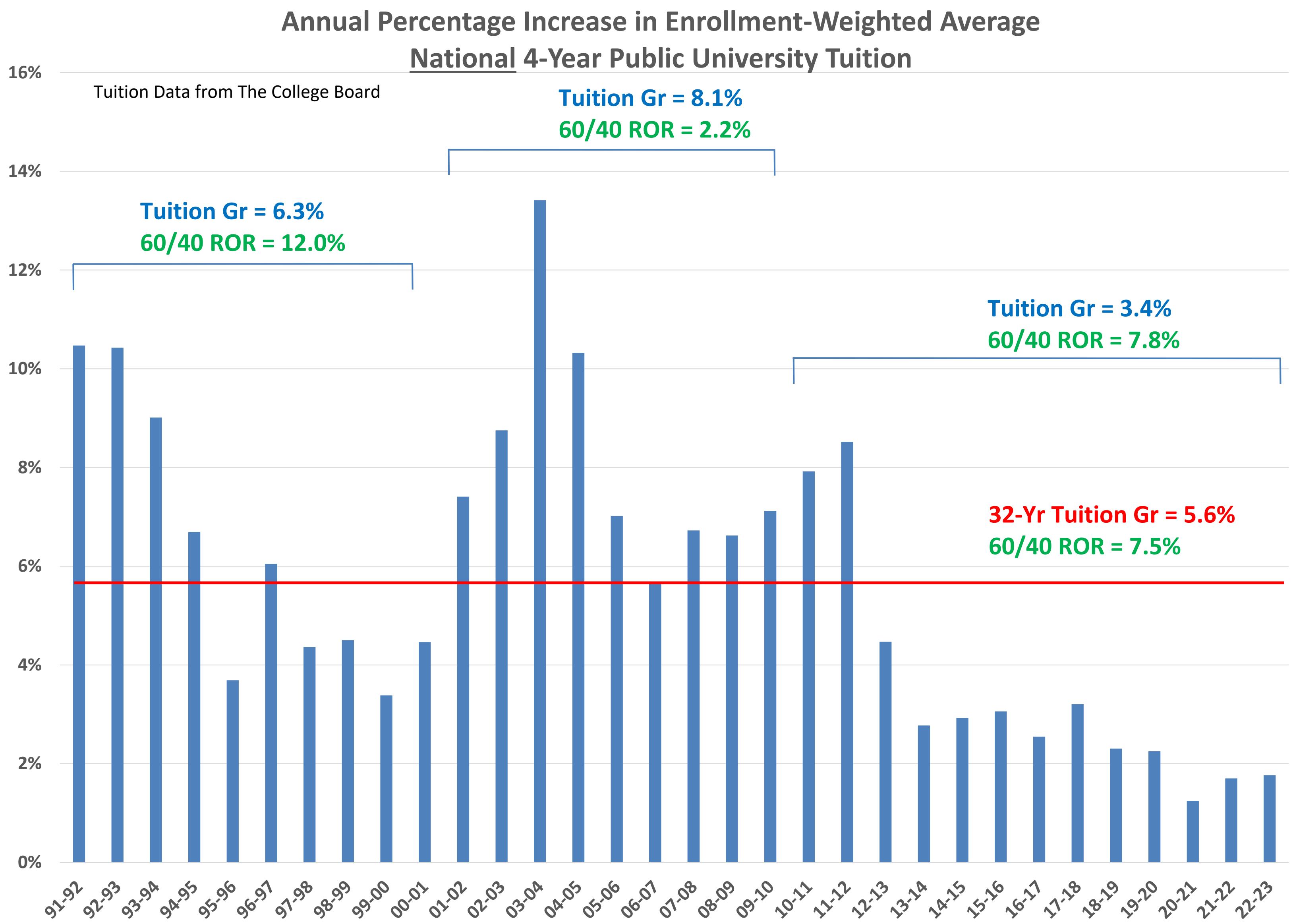
About Marquette Associates

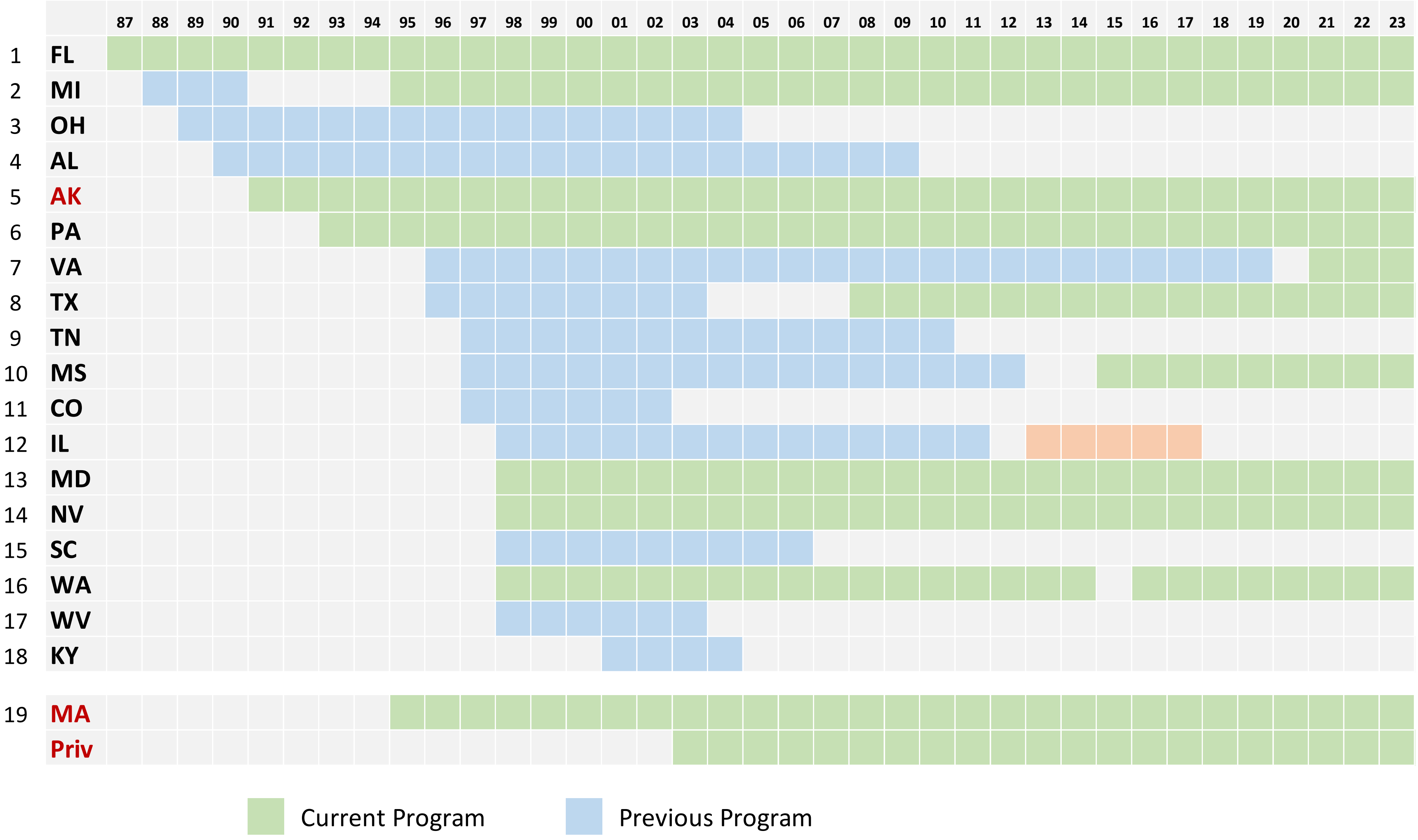
Marquette was founded in 1986 with the sole objective of providing investment consulting at the highest caliber of service. Our expertise is grounded in our commitment to client service — our team aims to be a trusted partner and as fiduciaries, our clients' interests and objectives are at the center of everything we do. Our approach brings together the real-world experience of our people and our dedication to creativity and critical thinking in order to empower our clients to meet their goals. For more information, please visit www.MarquetteAssociates.com.

Tuition Increases vs Investment Returns



Milliman

Longevity of Prepaid Tuition Plans



What Makes a Perfect Prepaid Plan?

- **Purchasers**
  - Affordable options
  - Zero risk
  - Understandable, user-friendly plan design
  - Overall satisfaction with benefits
  - Maximum flexibility in using benefits
  - Excellent customer service
- **Colleges and Universities**
  - Fair compensation
  - Streamlined, easy-to-use billing and payment process
- **State**
  - Investment returns that consistently equal or exceed tuition inflation
  - Full-cost recovery model
  - Accurate assumptions
  - Comfortable funded status (never below 100%, but not too high)
  - Excellent customer service

Status of Prepaid Tuition Plans

- 12 Open Prepaid Tuition Plans
- 6 Prepaid Tuition Plans Closed to New Enrollment (active accounts)
- 3 Prepaid Plans Fully Depleted and Closed
- Original Texas prepaid tuition plan closed to new enrollment in 2003
  - Pricing methodology assumed greater investment returns and lower tuition inflation than what actually happened
    - Dot.com bust in 2001, market downturn in 2008
    - Double-digit tuition inflation in 2003, 2004 and 2005
  - Backed by the full faith and credit of the state of Texas (20,000 active accounts)
  - State has transferred $570M to date to fund benefit payments

What was Texas thinking when they opened a new prepaid plan for enrollment in 2008?

Design of the New Texas Prepaid Tuition Plan

Addressing the needs of purchasers?

- Affordable options
  - ✓ Tuition units priced at actual cost of tuition and schoolwide fees in year of purchase, redemption values based on actual cost of tuition and schoolwide fees in year of redemption
  - ✓ Tuition unit prices (2022-2023): Type I - $30 based on weighted average cost of Texas 2-year colleges; Type II - $114 based on weighted average cost of Texas public 4-year colleges; and Type III - $164 based on most expensive Texas public university
  - ✓ Flexible payment options: Lump Sum, Pay-As-You-Go, and Installment (add +6% interest to price),
- Zero risk
  - ✓ Texas public colleges and universities have to accept as payment in full for hours “paid” by plan and waive any difference
  - ➢ Purchaser has risk if used for non-Texas public college or university
  - ➢ Earnings on refunds are capped at 2% less than actual, not to exceed 5%, for units held at least 3 years
- Understandable, user-friendly plan design
  - ➢ Somewhat complicated
  - ✓ Online account access
  - ✓ Online redemption of tuition units
  - ✓ Recent conversion to almost 100% online submittal of forms and documents

Design of the New Texas Prepaid Tuition Plan

Addressing the needs of purchasers? (continued)

- Overall satisfaction with benefits
  - ✓ Texas public colleges and universities have to accept as payment in full
  - ✓ Surveys of account owners
  - ➢ Undergraduate tuition and schoolwide required fees only
  - ➢ No earnings on refunds for units held less than 3 years
  - ➢ Accounts expire 10 years from beneficiary's projected high school graduation date
- Maximum flexibility in using benefits
  - ✓ Use at public and private in-state and out-of-state colleges and universities
  - ✓ Use at most foreign institutions, for career schools, K-12 tuition, apprenticeships and student loan repayment
  - ✓ Change of beneficiary
- Excellent customer service
  - ➢ Continue to improve customer service response times

Design of the New Texas Prepaid Tuition Plan

Addressing the needs of Texas public colleges and universities?

- Fair compensation

  Texas public colleges and universities are paid **lesser** of:

  A. Amount paid by purchaser for tuition units, plus or minus net earnings or losses

  (Earnings = **greater** of 1) actual net return on account payments while funds were included in the Plan's portfolio, or 2) an assumed 5% return on investments, subject to the availability of money in the fund for that purpose (funded status of Plan must be 110% or more))

  or

  B. 101% of then-current tuition and schoolwide required fees charged by the school at the time of tuition unit redemption

  ✓ Majority of Texas public schools have received payments that kept pace, or even exceeded, their tuition inflation

- Streamlined, easy-to-use billing and payment process

  ✓ Purchaser redeems units online:
    - Generates notice to school that beneficiary will be attending
    - Provides number and type of tuition units redeemed

  ✓ School submits online billing to plan
    - Payment typically distributed within 5 days of school billing
    - Payment based on tuition survey document provided by school

Design of the New Texas Prepaid Tuition Plan

Addressing the needs of the State of Texas?

✓Investment returns that consistently equal or exceed tuition inflation

- 6.9% actual return since inception through 12/31/2022
- 3.95% average tuition inflation for Texas public schools' tuition and fees over life of plan

✓Full-cost recovery model

- $25 nonrefundable application fee
- Shared risk model
  - Plan never pays out more than contributions plus or minus investment earnings or losses
- Cap on refunds of 2% less than actual, not to exceed 5%, for tuition units held 3 or more years
- 5.75% state administrative fee netted against portfolio earnings
- Program manager contract funding
  - Outreach staff
  - Marketing commitment
  - $100,000 per year for Plan scholarships for low-income Texans

Design of the New Texas Prepaid Tuition Plan

Addressing the needs of the State of Texas? (continued)

- ✓ Accurate assumptions
  - 6.3% for Texas senior public schools' tuition inflation; 5.2% for Texas 2-year colleges
  - 5.9% investment return assumption, less 0.6% expenses, for net of 5.3%
- ✓ Comfortable funded status (never below 100%, but not too high)
  - 122.1% at August 31, 2022, down from 132.9% at August 31, 2021
- ➢ Excellent customer service
  - Measured through surveys and complaints

Questions?

- Contact for Moderator:
  - Soohyang Lee, AKF – Soohyang@akfconsulting.com

- Contact for Panelists:
  - Linda Fernandez, Texas – Linda.Fernandez@cpa.texas.gov
  - Alan Perry, Milliman, Inc. – alan.perry@milliman.com
  - Glenn Ross, Marquette – ger@marquetteassociates.com

Let’s get down to business.

It’s been a great day of learning, but now it’s time to shift gears.

Next up:
February/March Prepaid Tuition Committee Meeting
4-5pm

Welcome back to day 2!

- Let's recap what we heard yesterday

What's playing today

Day 2 Agenda (March 1)

1:00pm – 1:15pm	**Recap of Day 1** – Alisa Ferguson, Virgina529 and Luke Minor, WA529
1:15pm – 2:30pm	**The Neverending Story – Controlling the Message Year-After Year** *Moderator:* Lael Oldmixon, Alaska 529 *Panelists:* Dr. Tya R. Mathis-Coleman, Nevada State Treasurer's Office; Jackie Ferrado, WA529; Heather Barthelmes, Michigan Education Trust
2:30pm – 2:40pm	Break
2:40pm – 3:50pm	**Risky Business – Prepaid Operational Risk Management** *Facilitator:* Sherri Wyatt, Virginia529 *Presenters:* Will Thompson, Florida Prepaid College Board; Rick Stierwalt, Catalis; Jason Schlenker, Inktel Contact Center Solutions
3:50pm – 4:00pm	**Closing Remarks** – Alisa and Luke
4:00pm – 5:00pm	**BONUS Session: Networking**

Today's first feature…every real story is a never ending story…

Session #3

The Neverending Story – Controlling the Message Year-After-Year

- Moderator:
  - Lael Oldmixon, Alaska 529
- Panelists:
  - Dr. Tya R. Mathis-Coleman, Nevada
  - Jackie Ferrado, WA529
  - Heather Barthelmes, MET

CONTROLLING THE MESSAGE

- Introductions
- Round table questions
- Key takeaways

KEY TAKEAWAYS

- **Know and understand your audience**
  - Who are you talking to and what are their concerns?
  - Outreach to families through their workplace is a financial wellness initiative that supports financial education.
- **Think and act multi-channel.**
  - Need high-level buy-in to encourage HR, benefits, and payroll department staff to accept as tools to support financial wellness and education.
  - Start with a specific message and be consistent - simplify the message and the ask.
  - Test and learn

KEY TAKEAWAYS

- **Measure Success**
  - Data! Data! Data!

- **Anticipate roadblocks**
  - Go above and beyond
  - Don’t be afraid to pivot
  - Follow up and follow through build a trustworthy relationship to support continued success.

Questions?

- Contact for Moderator:
  - Lael Oldmixon, Alaska 529 - lmoldmixon@alaska.edu

- Contact for Panelists:
  - Dr. Tya R. Mathis-Coleman, Nevada - tmathiscoleman@nevadatreasurer.gov
  - Jackie Ferrado, WA529 - JackieF@wsac.wa.gov
  - Heather Barthelmes, MET - BarthelmesH@michigan.gov

And for our final act…keeping your cool in the face of danger

Session #4

Risky Business – Prepaid Operational Risk Management

- Facilitator:
  - Sherri Wyatt, Virginia529

- Presenters:
  - Will Thompson, Florida Prepaid
  - Rick Stierwalt, Catalis
  - Jason Schlenker, Inktel

Questions?

- Contact for Facilitator:
  - Sherri Wyatt, Virginia529 - SWyatt@virginia529.com

- Contact for Presenters:
  - Will Thompson, Florida Prepaid - William.Thompson@MyFloridaPrepaid.com
  - Rick Stierwalt, Catalis - rick.stierwalt@catalisgov.com
  - Jason Schlenker, Inktel - Jason.Schlenker@Inktel.com

And that's a wrap!

Thank you for attending the
2023 Virtual CSPN Prepaid Mini-Conference!

Stick around from 4-5pm to network with your colleagues!