

**UTIMCO BOARD OF DIRECTORS
MEETING AGENDA
September 15, 2022**

UTIMCO
210 West 7th Street, Suite 1700
Austin, Texas 78701

Time	Item #	Agenda Item
Begin	End	
8:30 a.m.	9:00 a.m.	OPEN MEETING: Call to Order of the Meeting Convene into Executive Session Pursuant to Section 551.074 <i>Texas Government Code</i> , the Board of Directors may convene in Executive Session to deliberate individual personnel matters.
9:00 a.m.	9:05 a.m.	1 Reconvene into Open Session Discussion and Appropriate Action Related to Minutes of June 10, 2022 Meeting*
9:05 a.m.	9:10 a.m.	2 Discussion and Appropriate Action Related to Corporate Resolutions: - Election of Corporate Officers* - Committee Assignments** - Resolution of Appreciation*
9:10 a.m.	9:50 a.m.	3 Financial Markets Overview by Guest Speaker
9:50 a.m.	10:15 a.m.	4 UTIMCO Update
10:15 a.m.	10:35 a.m.	5 Risk Management Presentation
10:35 a.m.	10:50 a.m.	6 Fixed Income Presentation
10:50 a.m.	11:05 a.m.	7 Information Services & Security Presentation
11:05 a.m.	11:10 a.m.	8 Report from Audit and Ethics Committee
11:10 a.m.	11:15 a.m.	9 Report from Investment Risk Committee
11:15 a.m.	11:20 a.m.	10 Report from Cyber Risk Committee
11:20 a.m.	11:25 a.m.	11 Report from Compensation Committee
11:25 a.m.	11:30 a.m.	12 Report on 2023 Meeting Dates
11:30 a.m.		Adjourn followed by Lunch

* Action by resolution required

** Resolution requires further approval from the Board of Regents of The University of Texas System

Next Regularly Scheduled Meeting: December 9, 2022

RESOLUTION RELATED TO MINUTES

RESOLVED, that the minutes of the Meeting of the Board of Directors held on **June 10, 2022**, be, and are hereby, approved.

**MINUTES OF MEETING
OF THE BOARD OF DIRECTORS OF
THE UNIVERSITY OF TEXAS/TEXAS A&M INVESTMENT MANAGEMENT COMPANY**

The Board of Directors (the “Board”) of The University of Texas/Texas A&M Investment Management Company (the “Corporation”) convened in an open meeting on **June 10, 2022**, in person and by means of video and telephone conference enabling all persons participating in the meeting to hear each other, at the offices of the Corporation located at 210 West 7th Street, Suite 1700 in Austin, said meeting having been called by the Chairman, Jeffery D. Hildebrand (“Chairman”), with notice provided to each member in accordance with the Bylaws. The audio portion of the meeting was electronically recorded and broadcast over the Internet. Participating in the meeting were the following members of the Board:

Jeffery D. Hildebrand
Ray Rothrock
Robert Gauntt
Janet Handley
Jodie L. Jiles
Janiece Longoria
Ray Nixon
Clifton L. Thomas, Jr.
James C. “Rad” Weaver

thus constituting a majority and quorum of the Board. Employees of the Corporation attending the meeting were Britt Harris, CEO and President; Rich Hall, Chief Investment Officer; Joan Moeller, Chief Operations Officer, Secretary and Treasurer; Carolina de Onís, General Counsel and Chief Compliance Officer; Mike Sjolander, Chief Technology Officer; Eddie Lewis, Managing Director – Real Return; Uzi Yoeli, Managing Director – Risk Management; Pat Pace M.D., Managing Director – Private Equity; Ken Reeves, Managing Director – Human Resources; and other team members. Other attendees were James B. Milliken, Chancellor of The University of Texas (“UT System”) System; Ben Morse of Orrick, Herrington, & Sutcliffe LLP; and Keith Brown of the McCombs School of Business at UT Austin. Chairman Hildebrand called the meeting to order at 9:02 a.m. Copies of materials supporting the Board meeting agenda were previously furnished to each member of the Board.

Minutes

The first item to come before the Board was approval of the Minutes of the Board of Directors Meeting held on March 22, 2022. Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board:

RESOLVED, that the minutes of the Meeting of the Board of Directors held on March 22, 2022, be, and are hereby, approved.

CEO Update

Chairman Hildebrand asked Mr. Harris to provide the Board with the CEO update. Mr. Harris began with the details of the San Jacinto Project, a climate and energy transition conference focused on developing sources of

clean, affordable, reliable energy. Mr. Harris also shared the results of an organization health survey recently conducted for UTIMCO by Focus Consulting Group. He then answered questions from the Board.

UTIMCO and Market Update

Chairman Hildebrand asked Mr. Hall to present the UTIMCO and market update. Mr. Hall began with stating that he was going to discuss three interconnected themes: one the transition in the economic regime; two the stock market correction; and three the portfolio performance.

Mr. Hall's update was paused to introduce the 2022 Growing Investment Leaders intern class. Mr. Harris welcomed the class and the members introduced themselves. Mr. Harris also updated the Board on the UTIMCO Scholars Program.

Mr. Hall continued his presentation and provided an update on the Corporation's assets under management and performance results as of March 31, 2022. He reported that the Corporation had around \$70 billion of assets under management; almost \$15 billion in asset growth over three years. He reviewed AUM by institution as well as UTIMCO's diversification framework. Next, he discussed UTIMCO, and endowment returns and alpha detail as well as performance relative to peers. He also discussed ITF returns. Mr. Hall then reported on the market dashboard as well as economic indicators and provided an economic forecast. He concluded his presentation with a discussion on inflation, interest rates, and other economic considerations. Mr. Hall then answered questions from the Board.

Real Return Presentation

Chairman Hildebrand asked Mr. Lewis to present the update on the Real Return program. Mr. Lewis highlighted returns over the past year noting that the overall Real Return Portfolio generated a 18.6% return as of March 31, 2022. Mr. Lewis noted that Real Estate ended December 31, 2021 with a one year 23.8% IRR return, underperforming the benchmark slightly. Natural Resources delivered at 21.4% IRR return, underperforming the benchmark due to outsized exposure to agriculture and metals and mining sectors, which trailed upstream oil and gas returns. Infrastructure generated a 17.6% IRR return. Next, he discussed commercial real estate market conditions. Mr. Lewis then reviewed oil and gas market conditions and discussed energy transitions. He concluded with an overview of the teams' key accomplishments and top priorities going forward. Mr. Lewis answered the Directors' questions.

Private Equity Presentation

Chairman Hildebrand asked Dr. Pace to update the Board on the Private Equity Team and their current work. Dr. Pace began by stating that Private Equity generated a generated a 46.9% return over the last 12 months as of December 31, 2021, and a 15.7% return over a ten-year period. Dr. Pace noted that in the past year ending December 31, 2021, Venture Capital generated a 79.7%, Buyouts and Growth generated a 38.6%, Private Credit generated a 18.9%, and Emerging Markets generated a 9.8%. Dr. Pace recognized the team for their efforts and discussed Private Equity's role in the endowments. He covered performance and key highlights as well as priorities for 2022. Dr. Pace discussed the current market conditions and commitment plan before concluding his presentation. He then answered the Directors' questions.

Report from Policy Committee

Chairman Hildebrand asked Director Gauntt to provide a report from the Policy Committee. Director Gauntt reported that the Policy Committee met separately and jointly with the Investment Risk Committee on June 2, 2022. All members except for Director Thomas were present. The Joint Committee meeting agenda included discussion and appropriate action related to proposed amendments to the Investment Policy Statements, the Liquidity Policy, the Derivative Investment Policy, the Delegation of Authority Policy, the Securities Lending Policy, and the Valuation Criteria for Alternative Assets Policy. The Committee's separate meeting agenda included discussion and appropriate action related to the approval of minutes of the March 4, 2021, meeting and the June 17, 2021, joint meeting of the Policy and Risk Committees; discussion and appropriate action related to proposed amendments to the Code of Ethics; and discussion and appropriate action related to proposed amendments to the Master Investment Management Services Agreement with UTIMCO (the "IMSA"). The Committee deferred consideration of the proposed amendments to UTIMCO's Code of Ethics to a later date. Director Gauntt asked Mr. Hall, Ms. de Onís and Dr. Yoeli to discuss the proposed amendments to the Investment Policy Statements, other investment policies and IMSA. Ms. de Onís explained that all Board-level policies were reviewed as part of a best practices periodic review. Ms. de Onís reported that none of the policies were lacking in any material respect. Substantive changes were recommended for the Investment Policy Statements. Minor or non-substantive revisions were recommended for the Delegation of Authority Policy, Derivative Investment Policy, Liquidity Policy, Investment Management Services Agreement, and the Securities Lending Policy. Ms. de Onís recommended that the Valuation Criteria for Alternative Assets Policy be repealed as superseded by U.S. GAAP requirements. Mr. Hall discussed the specific recommended changes to the Investment Policy Statements and Delegation of Authority Policy. Mr. Hall, Ms. de Onís, and Dr. Yoeli answered the Directors' questions. Director Gauntt requested the UTIMCO Board approve the proposed amendments to the Investment Policy Statements for the PUF, GEF, PHF, LTF and ITF, the Liquidity Policy, the Derivative Investment Policy, and the IMSA, all subject to approval by the UT Board. Director Gauntt also recommended approval of the proposed amendments to the Delegation of Authority Policy and to repeal the Valuation Criteria for Alternative Assets Policy. Upon motion duly made and seconded, the following resolutions were unanimously adopted:

RESOLVED, that amendments to the Investment Policy Statements of the Permanent University Fund, General Endowment Fund, Permanent Health Fund, Long Term Fund and Intermediate Term Fund, and amendments to the Liquidity Policy and Derivative Investment Policy, as presented be, and are hereby approved, subject to approval by the Board of Regents of The University of Texas System; and

FURTHER RESOLVED, that amendments to the Delegation of Authority Policy as presented be, and are hereby approved; and

FURTHER RESOLVED, that the Valuation Criteria for Alternative Assets is no longer applicable and revoked in its entirety; and

RESOLVED, that the Master Investment Management Services Agreement with UTIMCO ("IMSA") be, and is hereby, approved in the form submitted to the Corporation's Board, subject to approval by the Board of Regents of The University of Texas System.

Report from Audit and Ethics Committee

Chairman Hildebrand asked Director Handley to provide a report on behalf of the Audit and Ethics Committee. Director Handley reported that the Committee met via teleconference on June 2, 2022. All members except for Director Thomas were present. The Committee's agenda included approval of Committee minutes; discussion and appropriate action related to engaging corporate external auditor; discussion and appropriate action related to proposed amendments to the UTIMCO Code of Ethics; an update on UTIMCO's compliance, reporting, and audit matters; a presentation of unaudited financial statements for the Investment Funds and the Corporation; and discussion and appropriate action related to the base salary for the General Counsel and Chief Compliance Officer for the 2022-2023 Fiscal Year. The Committee also met in Executive Session for the purpose of deliberating individual personnel compensation and evaluation matters. The Committee deferred consideration of the proposed amendments to UTIMCO's Code of Ethics to a later date.

The Committee received a report related to quarterly compliance and reviewed the unaudited financial statements for the Funds and the UTIMCO Corporation. Director Handley noted that Mrs. de Onís reported on the annual disclosure statements filed by outside financial advisors and service providers that were filed with the State Auditor's Office on April 15th and the annual report on Director Co-Investments. Director Handley also noted that Mrs. de Onís also reported to the Committee on contracts, leases, or other commercial arrangements of \$250,000 or more entered into during the quarter.

Director Handley reported that the Committee had approved the hiring of Deloitte and Touche LLP as the corporate auditor and requested that the Board take appropriate action related to hiring Deloitte and Touche LLP as the corporate auditor. Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board:

RESOLVED, that the firm of Deloitte & Touche LLP be, and is hereby, engaged as the independent auditor of the Corporation for the year ended August 31, 2022.

Report from Investment Risk Committee

Chairman Hildebrand asked Director Weaver to provide a report from the Investment Risk Committee. Director Weaver reported that the Investment Risk Committee met jointly with the Policy Committee and separately on June 2, 2022. The Committee's agenda for the joint meeting included a discussion and appropriate action related to proposed amendments to the Investment Policy Statements, Liquidity Policy, Derivative Investment Policy, Delegation of Authority Policy, the Securities Lending Policy, and the Valuation Criteria for Alternative Assets Policy. At its separate meeting, the Committee considered one action item: the minutes of its March 3, 2022 meeting. The Committee also received a report on compliance matters for the quarter ended February 28, 2022, and a market and portfolio risk update.

Report from Cyber Risk Committee

Chairman Hildebrand asked Director Rothrock to provide a report from the Cyber Risk Committee. Director Rothrock reported that the Cyber Risk Committee met via teleconference on June 2, 2022. The Committee

approved the minutes of its March 3, 2022 meeting. The Committee also met in Executive Session to receive an update on computer security assessments related to information resources technology.

Executive Session

Prior to going into executive session, Chairman Hildebrand announced that, "The Board of Directors of The University of Texas/Texas A&M Investment Management Company having been duly convened in Open Session and notice of this meeting having been duly given, I hereby announce the convening of a closed meeting as an Executive Session to deliberate individual personnel compensation matters, including the CEO and President pursuant to *Texas Government Code* Section 551.074. The date is June 10, 2022, and the time is now 11:30 a.m."

Reconvene in Open Session

The Board reconvened in open session and Chairman Hildebrand announced that, "The Open Session of the Board of Directors of The University of Texas/Texas A&M Investment Management Company is now reconvened. The date is June 10, 2022, and the time is now 11:57 a.m. During the Executive Session, the Board deliberated individual compensation matters, including the CEO and President, but no action was taken, nor decisions made, and no vote was called for or had by the Board in Executive Session."

Compensation Consultant

Chairman Hildebrand asked Mr. Reeves to report on the selection of Mercer as UTIMCO's Compensation Consultant. Mr. Reeves reported on the RFP process for the selection of a Compensation Consultant and UTIMCO's recommendation to the Compensation Committee that the existing relationship with Mercer continue, and the Compensation Committee's selection of Mercer as UTIMCO's Compensation Consultant at its June 2, 2022 meeting.

Report from Compensation Committee

Chairman Hildebrand asked Director Nixon to provide a report from the Compensation Committee. Director Nixon stated that the Compensation Committee met on June 2, 2022. The agenda included the approval of minutes of the December 9, 2021, meeting; discussion and appropriate action related to selection of UTIMCO compensation consultant; discussion and appropriate action related to base salaries for the UTIMCO officers and other UTIMCO Compensation Program Plan Participants for 2022-2023 Fiscal Year; and discussion and appropriate action related to the CEO's Qualitative Performance Standards for the Plan for the Performance Period ending June 30, 2023. The Committee also met in Executive Session for the purpose of deliberating individual personnel compensation matters. Director Nixon requested the Board take appropriate action on two resolutions, the CEO's Base Salary for the 2022-2023 Fiscal Year; and the CEO's Qualitative Performance Standards for the Plan for the Performance Period ending June 30, 2023. Upon motion duly made and seconded, the following resolutions were unanimously adopted by the Board:

RESOLVED, that the Board of Directors of UTIMCO hereby approves the Base Salary of the Corporation's CEO for the Fiscal Year 2022-2023 in the amount of \$904,000.

And

WHEREAS, Section 5.4(b) of the UTIMCO Compensation Program (the "Plan") provides that the Board will determine the Performance Standards of the CEO for each Performance Period; and

WHEREAS, the Board has reviewed the CEO's Qualitative Performance Standards for the Performance Period ending June 30, 2023, as prepared by the CEO, and recommended by the Compensation Committee and set forth in the document presented to the Board.

NOW, THEREFORE, be it:

RESOLVED, that the Board approves the Qualitative Performance Standards for the CEO for the Performance Period ending June 30, 2023, as set forth in the document presented to the Board.

Corporation Budget

Chairman Hildebrand asked Mr. Hall to discuss the Corporation's budget for the next fiscal year. The Corporation's budget is subject to approval by the Board and the Board of Regents of UT System. Mr. Hall explained the changes to the proposed budget compared to the prior year's budget and actual for the last fiscal year. The team answered questions from the Board. Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board:

RESOLVED, that the UTIMCO Management Fee of \$67,930,864 and the Other Direct Fund Costs of \$8,428,764 resulting in Total Fees of \$76,359,628, Capital Budget of \$645,000 and the Allocation Schedule; as provided to the Board for the period beginning September 1, 2022, through August 31, 2023, be, and are hereby, approved, subject to approval by the Board of Regents of The University of Texas System.

Corporate Resolutions

Chairman Hildebrand nominated Director Rothrock to serve as Vice Chairman of the Board and Director Jiles to serve as Vice Chairman for Policy. Before proceeding with the nomination for Chair, Chairman Hildebrand announced that after nine long years of dutiful and committed service to The University of Texas System, he had decided to step down as Chairman of UTIMCO to pursue other interests. Chairman Hildebrand continued with the progress, changes, and accomplishments made over his term and thanked everyone. Several Directors and UTIMCO Management congratulated and thanked Chairman Hildebrand for his service and shared memories of Chairman Hildebrand's tenure. Mr. Hall read a Resolution of Appreciation to capture the highlights of Chairman Hildebrand's service and dedication. Chairman Hildebrand proceeded with nominating Director Weaver to serve as Chairman of the Board. There being no other nominations, Chairman Hildebrand then requested a motion to approve the corporate resolution designating the officers for the Corporation. As stated in the Bylaws, Officers for the ensuing year are to be elected at the Annual Meeting. Employees that are designated as Officers by the Board meet the definition of Key Employees in the

Corporation's Code of Ethics. Upon motion duly made and seconded, the following resolutions were unanimously adopted:

RESOLVED, that the following persons are hereby appointed to the respective office or offices of the Corporation set forth opposite their names, to serve until the next Annual Meeting of the Corporation or until their resignation or removal.

<u>Name</u>	<u>Office or Offices</u>
James C. "Rad" Weaver	Chairman
Ray Rothrock	Vice Chairman
Jodie L. Jiles	Vice Chairman for Policy
Britt Harris	Chief Executive Officer and President
Rich Hall	Chief Investment Officer
Joan Moeller	Senior Managing Director, COO, Treasurer and Secretary
Susan Chen	Senior Managing Director
Carolina de Onís	Managing Director, General Counsel and Chief Compliance Officer
Ryan Ruebsahm	Senior Managing Director
Gary Hill	Managing Director
Amanda Hopper	Managing Director
Russ Kampfe	Managing Director
Edward Lewis	Managing Director
Pat Pace	Managing Director
Courtney Powers	Managing Director
Ken Reeves	Managing Director
Mike Sjolander	Managing Director and Chief Technology Officer
Uzi Yoeli	Managing Director

Adjourn

There being no further business to come before the Board, the meeting was adjourned at approximately 12:32 p.m.

Secretary: _____
Joan Moeller

Approved: _____ Date: _____
James C. "Rad" Weaver
Chairman, Board of Directors of
The University of Texas/Texas A&M Investment Management Company

Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item: Discussion and Appropriate Action Related to Corporate Resolutions:
- Election of Corporate Officers
- Committee Assignments
- Resolution of Appreciation

Developed By: Harris, Moeller

Presented By: Weaver

Type of Item: Action required by UTIMCO Board; Further action required by The University of Texas System Board of Regents related to the appointment of the Audit and Ethics Committee

Description: Chairman Weaver will recommend that the Board take action to formally appoint Director Milliken as Vice Chairman for Policy. Director Jiles has held the position but in accordance with the UTIMCO Bylaws, the Chancellor of UT System serves as the Vice Chairman for Policy when appointed to the Board. Mr. Harris will request that Gus Deering, Mukund Joshi and Tony Caruso be appointed officers of the Corporation. Managing Directors are considered officers of the Corporation. Mr. Deering was hired as UTIMCO's new Chief Technology Officer effective August 29, 2022. Effective September 1, 2022, Mr. Joshi was appointed Managing Director – Real Return and Mr. Caruso was appointed Managing Director – Hedge Funds.

Chairman Weaver will propose new Board committee assignments. If a change is made in the composition of the Audit and Ethics Committee, Section 66.08 of the *Texas Government Code* requires that the U. T. System Board of Regents approve the appointment of the members of the Audit and Ethics Committee of the UTIMCO Board.

Chairman Weaver will present a recommendation to the Board to approve a resolution acknowledging the services of Jeffery D. Hildebrand as a UTIMCO Board Chairman and member. Mr. Hildebrand has served as Director for nine years and as Chairman for seven years.

Recommendation: Chairman Weaver will recommend approval of the election of Corporate Officers, approval of committee assignments, and resolution of appreciation.

Reference: None

RESOLUTION RELATED TO CORPORATE OFFICERS

RESOLVED, that the following persons are hereby appointed to the respective office or offices of the Corporation set forth opposite their names, to serve until the next Annual Meeting of the Corporation or until their resignation or removal.

<u>Name</u>	<u>Office or Offices</u>
James B. Milliken	Vice Chairman for Policy
Tony Caruso	Managing Director
Gus Deering	Managing Director and Chief Technology Officer
Mukund Joshi	Managing Director

RESOLUTION RELATED TO COMMITTEE ASSIGNMENTS

BE IT RESOLVED, that the following Directors of the Corporation are hereby designated as the Audit and Ethics Committee of the Board of Directors:

Janet Handley
Jodie L. Jiles
Janiece Longoria
James B. Milliken

subject to approval by the Board of Regents of The University of Texas System at a future meeting, to serve until the expiration of their term, or until their successor has been chosen and qualified, or until their earlier death, resignation or removal; and

FURTHER RESOLVED, that Janet Handley is hereby designated the Chair of the Audit and Ethics Committee and shall preside at its meetings.

BE IT RESOLVED, that the following Directors of the Corporation are hereby designated as the Compensation Committee of the Board of Directors:

Robert Gauntt
Janet Handley
Ray Nixon
Ray Rothrock

to serve until the expiration of their term, or until their successor has been chosen and qualified, or until their earlier death, resignation or removal; and

FURTHER RESOLVED, that Ray Nixon is hereby designated the Chair of the Compensation Committee and shall preside at its meetings.

BE IT RESOLVED, that the following Directors of the Corporation are hereby designated as the Policy Committee of the Board of Directors:

Robert Gauntt
Jodie L. Jiles
Ray Nixon
Clifton L. Thomas, Jr.

to serve until the expiration of their term, or until their successor has been chosen and qualified, or until their earlier death, resignation or removal; and

FURTHER RESOLVED, that Robert Gauntt is hereby designated the Chair of the Policy Committee and shall preside at its meetings.

BE IT RESOLVED, that the following Directors of the Corporation are hereby designated as the Investment Risk Committee of the Board of Directors:

Janet Handley
Janiece Longoria
Ray Rothrock
Clifton L. Thomas, Jr.

to serve until the expiration of their term, or until their successor has been chosen and qualified, or until their earlier death, resignation or removal; and

FURTHER RESOLVED, that Janiece Longoria is hereby designated the Chair of the Investment Risk Committee and shall preside at its meetings.

BE IT RESOLVED, that the following Directors of the Corporation are hereby designated as the Cyber Risk Committee of the Board of Directors:

Robert Gauntt
James B. Milliken
Ray Rothrock
Clifton L. Thomas, Jr.

to serve until the expiration of their term, or until their successor has been chosen and qualified, or until their earlier death, resignation or removal; and

FURTHER RESOLVED, that Ray Rothrock is hereby designated the Chair of the Cyber Risk Committee and shall preside at its meetings.

RESOLUTION OF APPRECIATION JEFFERY D. HILDEBRAND

WHEREAS, in recognition of his substantial background, philanthropic efforts, and expertise in business, Jeffery D. Hildebrand was appointed by Governor Rick Perry to a term on the Board of Regents of The University of Texas System in February 2013; and

WHEREAS, Mr. Hildebrand was appointed by the Board of Regents of The University of Texas System to the Board of Directors of The University of Texas/Texas A&M Investment Management Company (“UTIMCO”) in September 2013, serving as a Regental Director until his term expired in April 2019, and then reappointed as an external Director in May 2019; and

WHEREAS, Mr. Hildebrand was elected Chairman of the UTIMCO Board in April 2015 and continued as Chairman during the remainder of his tenure on the UTIMCO Board, thereby serving as the longest-running Chairman in the history of UTIMCO; and also served at various times as Chairman of the Policy Committee and as a member of the Audit and Ethics Committee, the Compensation Committee and the Risk Committee; and

WHEREAS, during his tenure on the UTIMCO Board, Mr. Hildebrand provided invaluable insight and counsel, drawing on his many years of business and investment experience as Founder, Chairman and Chief Executive Officer of Hilcorp Energy Company, an independent oil and gas exploration and production company headquartered in Houston, Texas with operations throughout the United States; and

WHEREAS, Mr. Hildebrand’s commitment and service as a Director of UTIMCO were exemplary, reflecting his deep devotion to the education and development of students at all levels, and further evidenced by his service as a member of the Board of Rice University’s Baker Institute for Public Policy and as recipient of the 2005 Distinguished Engineering Graduate and the 2013 Petroleum & Geosystems Engineering Distinguished Alumnus Awards, both from the University of Texas at Austin; and

WHEREAS, Mr. Hildebrand’s unselfish contributions are also evidenced in the civic and corporate arenas by his generous financial support and service on various charitable and professional boards throughout his career, including serving on the Boards of Central Houston, Inc., the Houston Livestock Show and Rodeo, the Houston Police Foundation, the Hildebrand Foundation, and as a Commissioner of the Texas Parks and Wildlife Commission; and

WHEREAS, during Mr. Hildebrand’s tenure on the UTIMCO Board, UTIMCO managed the Permanent University Fund for the benefit of The University of Texas and The Texas A&M University Systems and other investments of The University of Texas System with the highest standards of integrity, professionalism, and competency, earning wide praise and recognition from UTIMCO’s investment beneficiaries, namely The University of Texas System and The Texas A&M University System, as well as the alumni and patrons of such Systems, the State’s legislative leaders, the national credit rating agencies, capital markets, and investment community generally; and

WHEREAS, during Mr. Hildebrand’s tenure on the UTIMCO Board, total assets under management by UTIMCO more than doubled, growing from \$30.0 billion to over \$65.6 billion, and \$13.5 billion in endowment distributions have been made; and

WHEREAS, Mr. Hildebrand’s leadership, judgment, and commitment to UTIMCO has contributed greatly to UTIMCO’s success.

NOW, THEREFORE,

BE IT RESOLVED, that the Directors of The University of Texas/Texas A&M Investment Management Company, on behalf of the grateful people of the State of Texas, particularly the Boards of Regents and Administrators of The University of Texas System and The Texas A&M University System, and everyone at UTIMCO, do hereby express to Jeffery D. Hildebrand their sincerest appreciation for his leadership and service that contributed immeasurably to UTIMCO’s success; and

BE IT FURTHER RESOLVED, that all persons who read this Resolution should know that Mr. Hildebrand has made a lasting and fundamental contribution to improve the manner in which public university endowments are invested and managed in the State of Texas, to the benefit of all of the citizens of the State, particularly the students and faculty of The University of Texas System and The Texas A&M University System.

PASSED AND ADOPTED this 15th day of September 2022.

Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item: Financial Markets Overview by Guest Speaker

Developed By: Team

Presented By: Harris
Jordan Jackson from J.P. Morgan Asset Management

Type of Item: Information Item

Description: Britt Harris will introduce Jordan Jackson, Global Market Strategist of J.P. Morgan Asset Management. Mr. Jackson will provide an overview of the financial markets.

Reference: *Guide to the Markets* presentation



Guide to the Markets[®]

Jordan Jackson, Global Market Strategist

U.S. | 3Q 2022

As of August 31, 2022





Agenda

GTM

U.S.

- **Growth:** *not in recession, but risks remain elevated heading into 4Q22*
- **Jobs:** *payroll gains expected to slow as excess demand for labor falls*
- **Profits:** *constructive today, but overly optimistic for tomorrow*
- **Inflation:** *from red-hot to amber*
- **Rates:** *what's next after neutral?*
- **Policy:** *balance of power following midterm elections*
- **Investment opportunities:** *conservative equity; high quality fixed income; diversify across alternatives*



Guide to the Markets: A large and growing global footprint



8 REGIONAL VERSIONS: U.S., ASIA, AUSTRALIA, EUROPE, JAPAN, LATIN AMERICA, UK, CHINA	13 LANGUAGES	33 COUNTRIES	300K+ FINANCIAL PROFESSIONALS RECEIVE THE GUIDE EACH QUARTER
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Global Market Insights Strategy Team

Americas

- **Dr. David Kelly, CFA**
New York
- **David Lebovitz**
New York
- **Meera Pandit, CFA**
New York
- **Jordan Jackson**
New York
- **Olivia Schubert**
New York
- **Gabriela Santos**
New York
- **Jack Manley**
New York
- **Stephanie Aliaga**
New York
- **Nimish Vyas**
New York

Europe

- **Michael Bell, CFA**
London
- **Hugh Gimber, CFA**
London
- **Max McKechnie**
London
- **Natasha May**
London
- **Zara Nokes**
London
- **Karen Ward**
London
- **Vincent Juvyns**
Luxembourg
- **Tilmann Galler, CFA**
Frankfurt
- **Maria Paola Toschi**
Milan
- **Elena Domecq**
Madrid
- **Lucia Gutierrez Mellado**
Madrid

Asia

- **Marcella Chow**
Hong Kong
- **Ian Hui**
Hong Kong
- **Adrian Tong**
Hong Kong
- **Sahil Gauba**
Mumbai
- **Clara Cheong**
Singapore
- **Tai Hui**
Hong Kong
- **Chaoping Zhu, CFA**
Shanghai
- **Shogo Maekawa**
Tokyo
- **Agnes Lin**
Taipei
- **Kerry Craig, CFA**
Melbourne

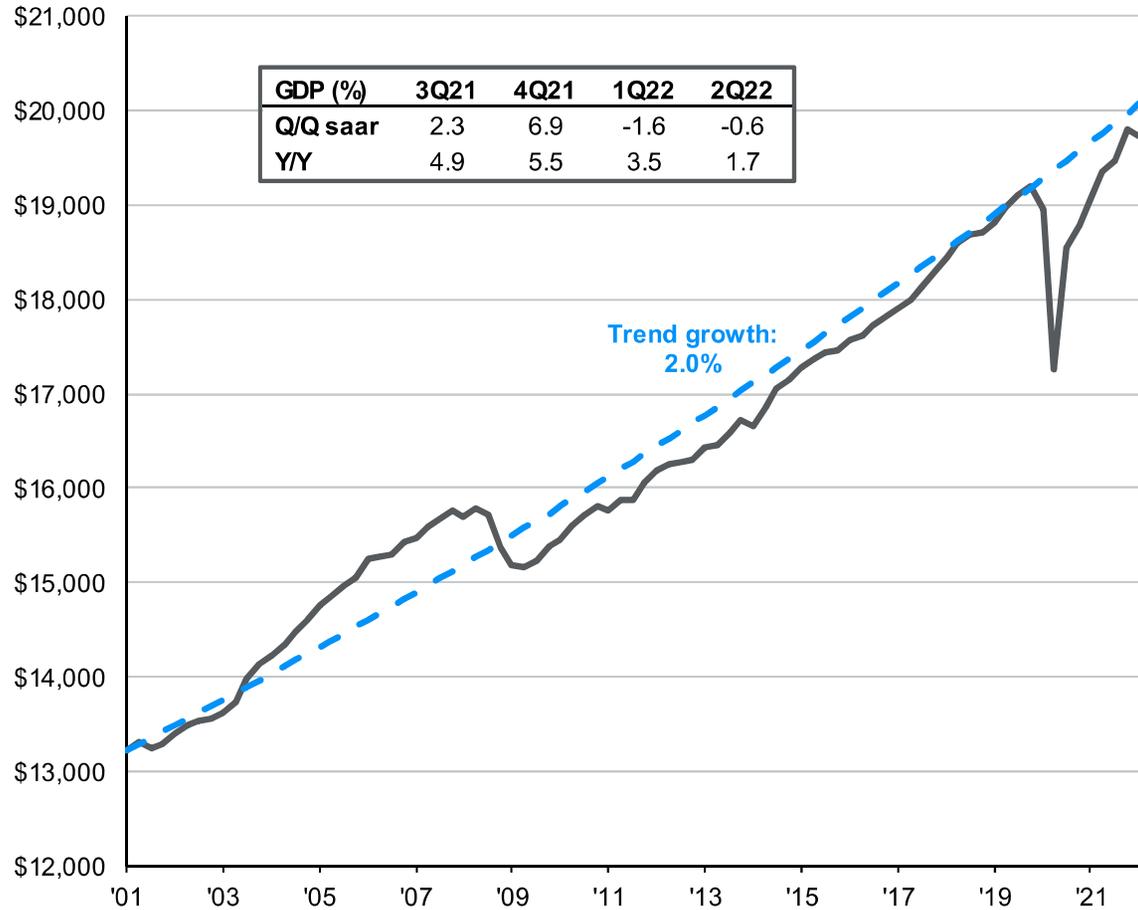


The slide in growth in 1H22 reflects slowing momentum, not recession

GTM | U.S. | 19

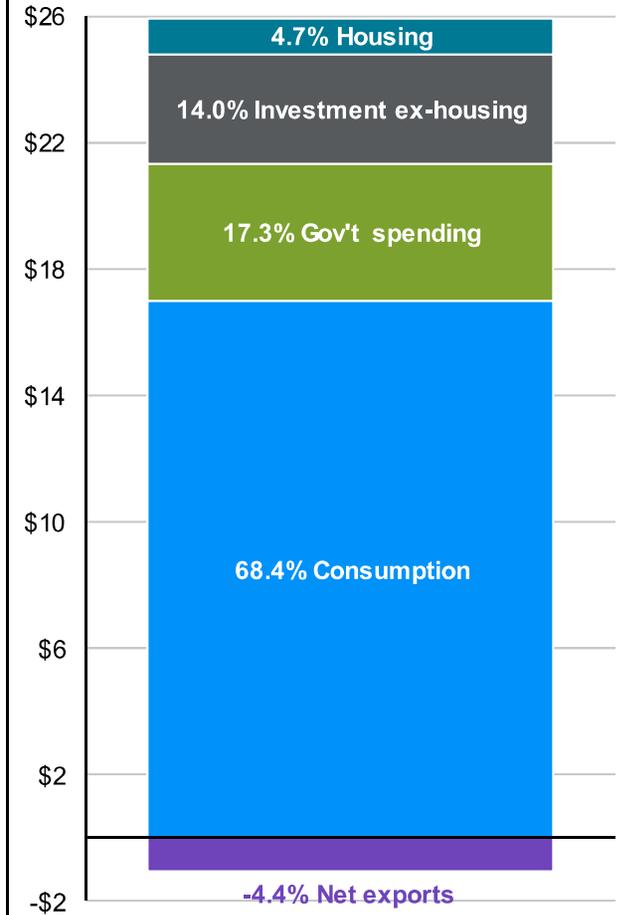
Real GDP

Billions of chained (2012) dollars, seasonally adjusted at annual rates



Components of GDP

2Q22 nominal GDP, USD trillions



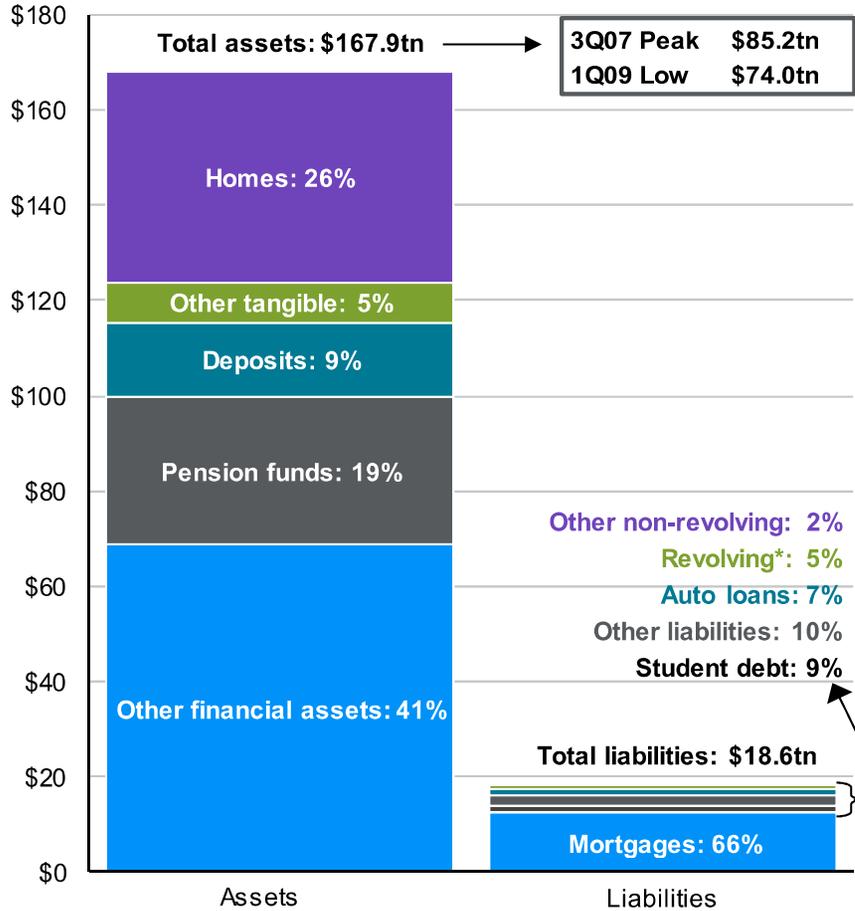
Source: BEA, FactSet, J.P. Morgan Asset Management. Values may not sum to 100% due to rounding. Trend growth is measured as the average annual growth rate from business cycle peak 1Q01 to business cycle peak 4Q19.
 Guide to the Markets – U.S. Data are as of August 31, 2022.



Consumer balance sheets are still in good shape

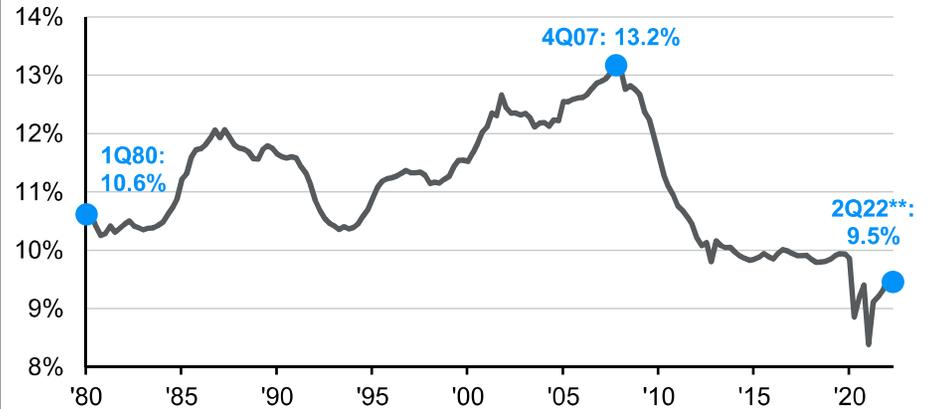
Consumer balance sheet

1Q22, trillions of dollars outstanding, not seasonally adjusted



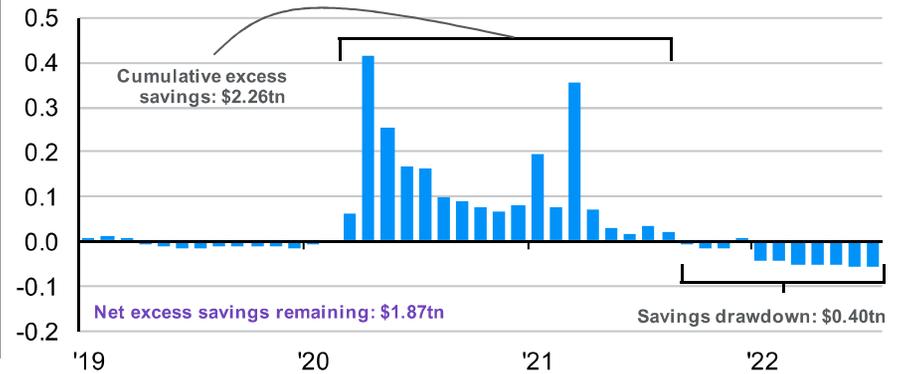
Household debt service ratio

Debt payments as % of disposable personal income, SA



Excess personal savings relative to pre-pandemic trend

Disposable personal income less consumer outlays, minus pre-pandemic trend growth***, \$ trillions, monthly



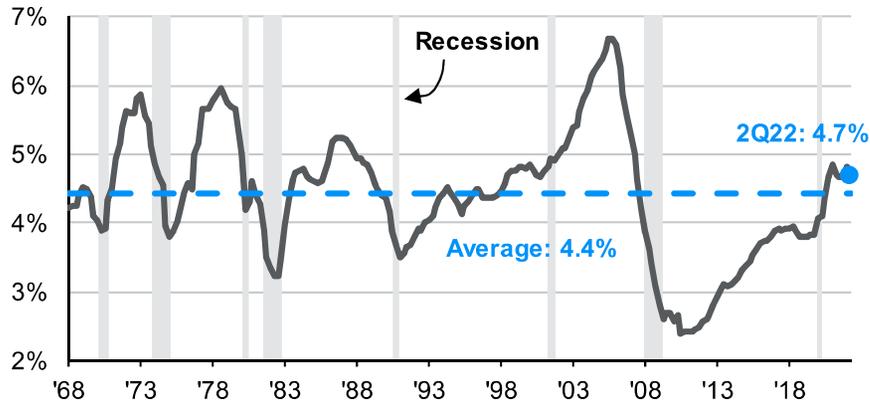
Source: FactSet, FRB, J.P. Morgan Asset Management; (Top and bottom right) BEA. Data include households and nonprofit organizations. SA – seasonally adjusted. *Revolving includes credit cards. Values may not sum to 100% due to rounding. **2Q22 figures for debt service ratio are J.P. Morgan Asset Management estimates. ***Figures reflect the difference in monthly realized savings vs. pre-pandemic trend savings from March 2020 to February 2022. From March 2020 to August 2021, consumers amassed \$2.3 trillion in excess savings. Since August 2021, consumers have begun to draw down on those excess savings, with the remaining reflected in the chart annotation. Guide to the Markets – U.S. Data are as of August 31, 2022.



If a recession were to occur, it may be a shallow one

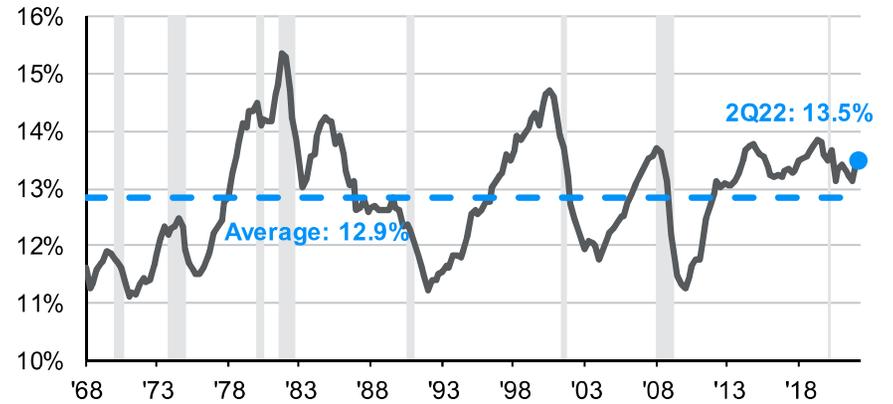
Residential investment as a % of GDP

Quarterly, seasonally adjusted



Business fixed investment as a % of GDP

Quarterly, seasonally adjusted



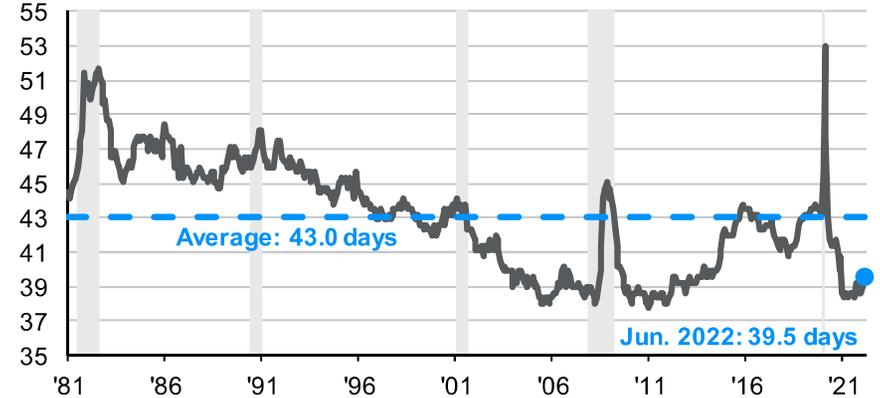
Light vehicle sales

Mil vehicles, seasonally adjusted ann. rate



Total business inventory/sales ratio

Days of sales, monthly, seasonally adjusted



Source: BEA, Census Bureau, FactSet, J.P. Morgan Asset Management. Data for light vehicle sales is quarterly apart from the latest monthly data point. Guide to the Markets – U.S. Data are as of August 31, 2022.



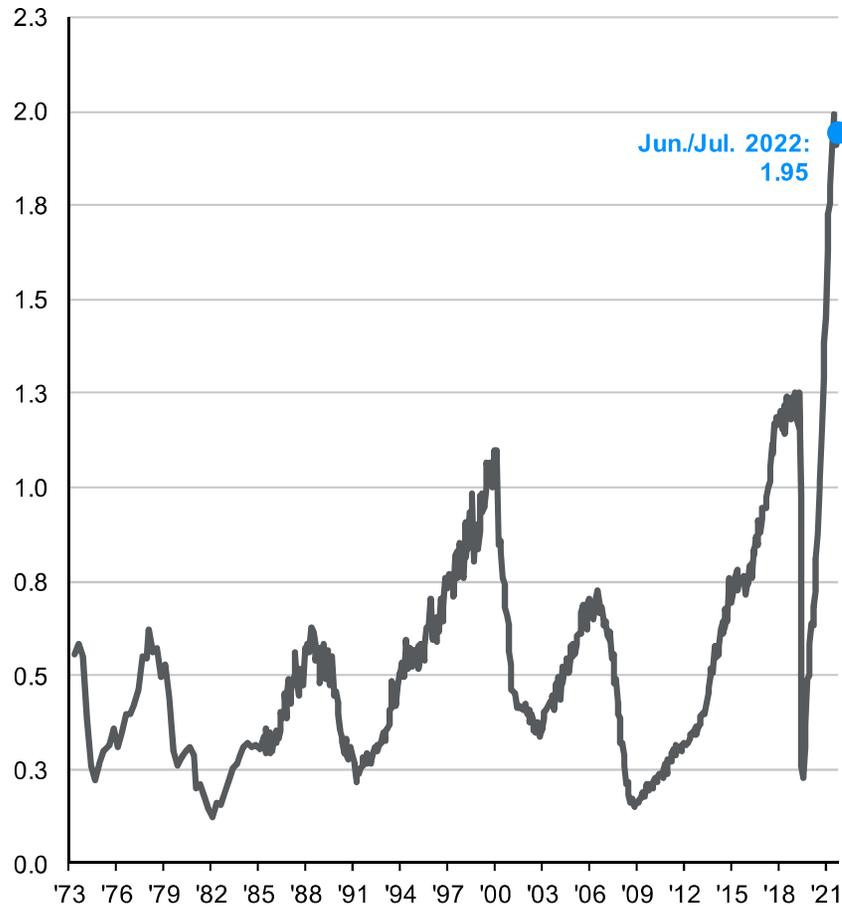
Demand for labor remains elevated but should soften

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Economy

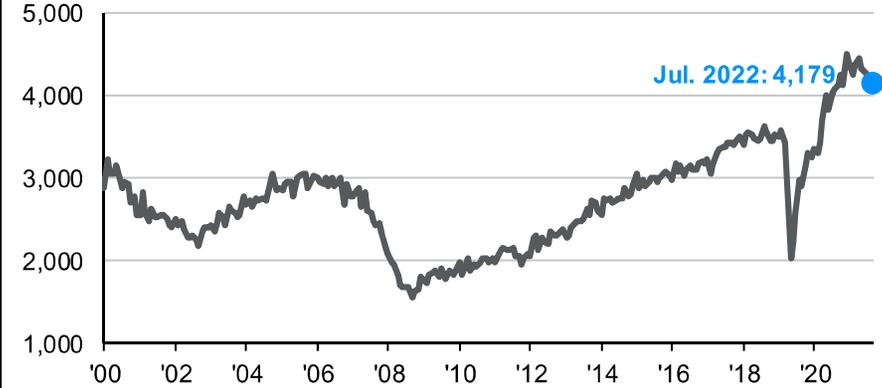
Ratio of job openings to job seekers

Job openings* lagged 1 month divided by unemployed persons, SA



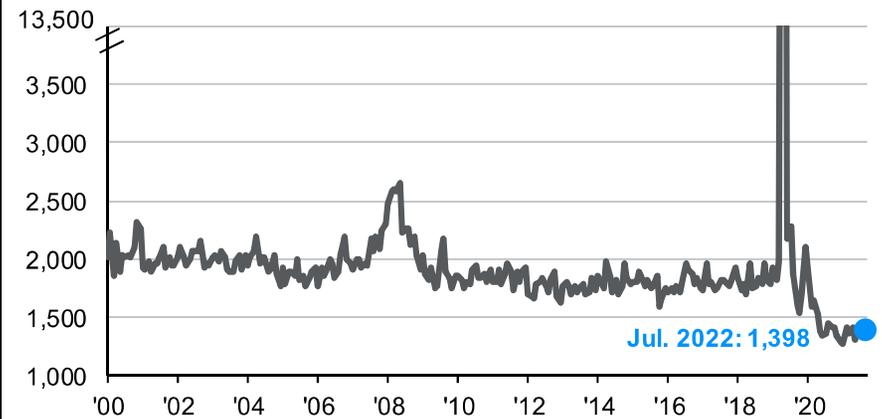
JOLTS quits

Total nonfarm quits, thousands, seasonally adjusted



JOLTS layoffs

Total nonfarm layoffs, thousands, seasonally adjusted



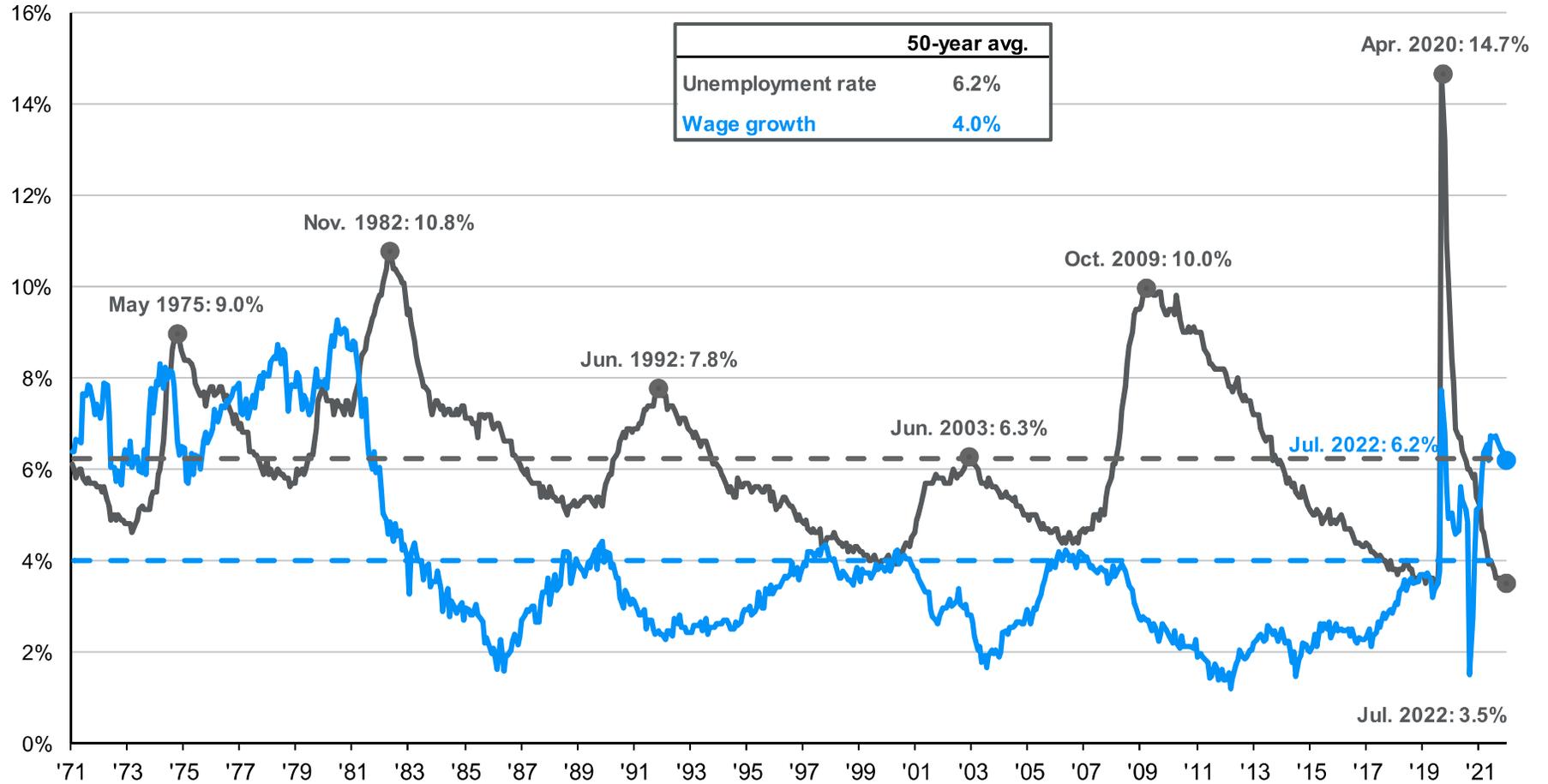
Source: U.S. Department of Labor, J.P. Morgan Asset Management. *JOLTS job openings from February 1974 to November 2000 are J.P. Morgan Asset Management estimates.
Guide to the Markets – U.S. Data are as of August 31, 2022.



Payroll gains should slow, but wages may remain elevated

Civilian unemployment rate and year-over-year wage growth

Private production and non-supervisory workers, seasonally adjusted, percent



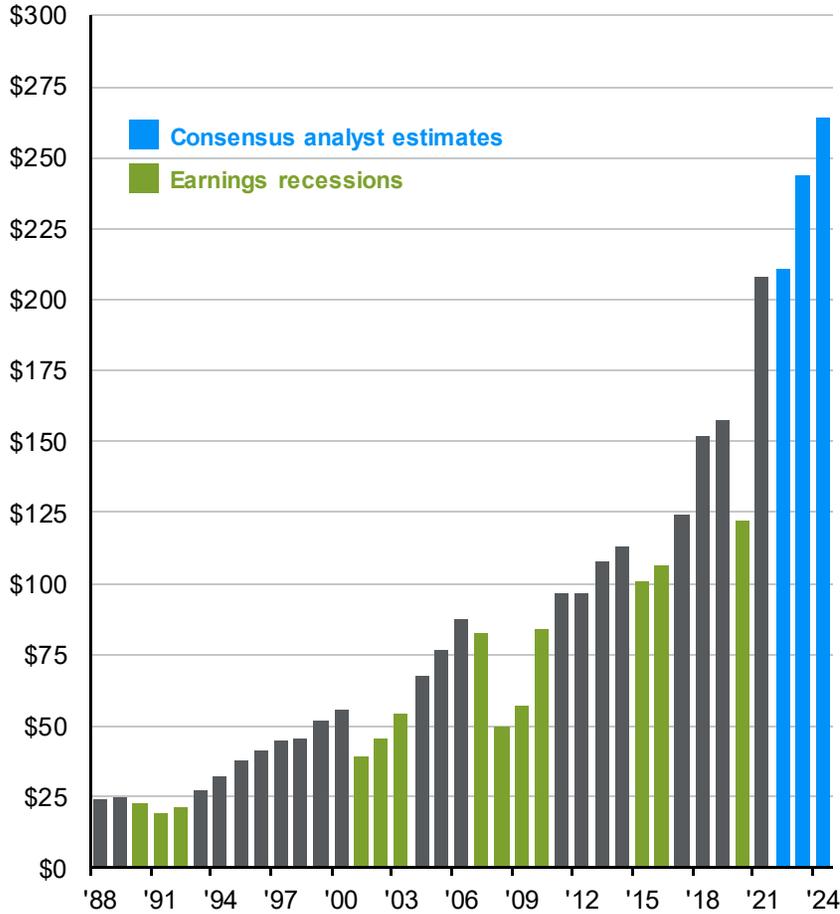
Source: BLS, FactSet, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of August 31, 2022.



Optimistic forward earnings estimates suggest some further downside

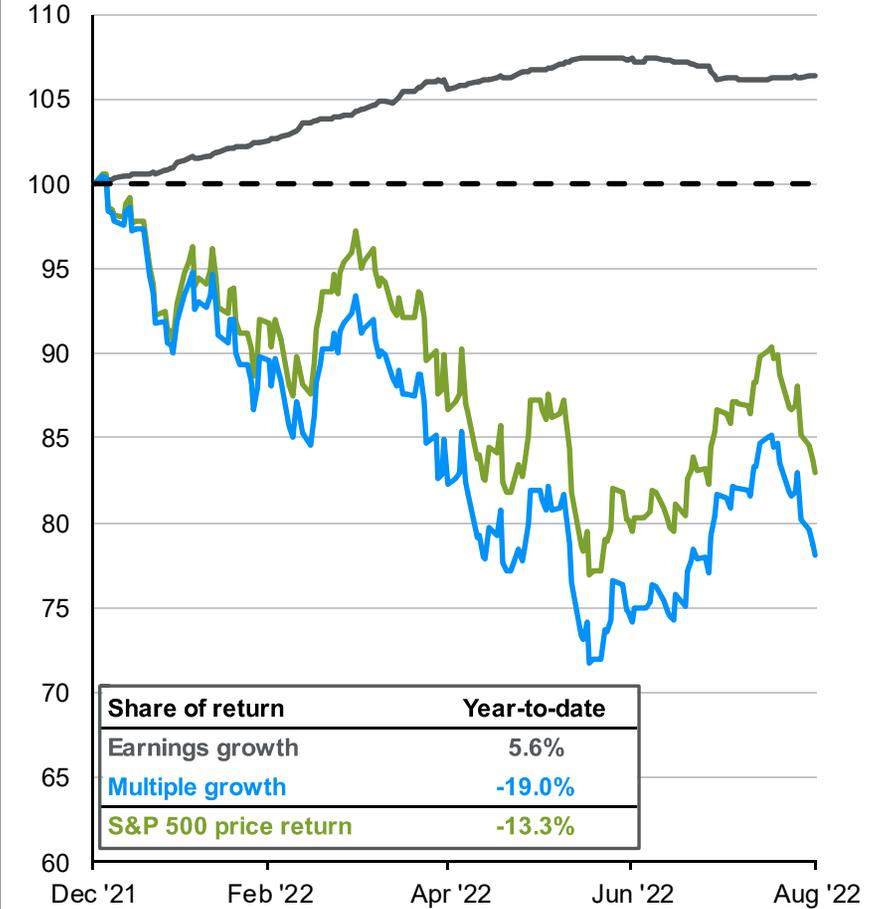
S&P 500 earnings per share

Index annual operating earnings



Percent change in S&P 500, earnings and valuations*

Year-to-date, indexed to 100



Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management.

Historical EPS levels are based on annual operating earnings per share. Earnings estimates are based on estimates from Standard & Poor's and FactSet Market Aggregates. *Earnings and multiple growth are both year-to-date percent changes of next twelve-month estimates. Past performance is not indicative of future returns.

Guide to the Markets – U.S. Data are as of August 31, 2022.

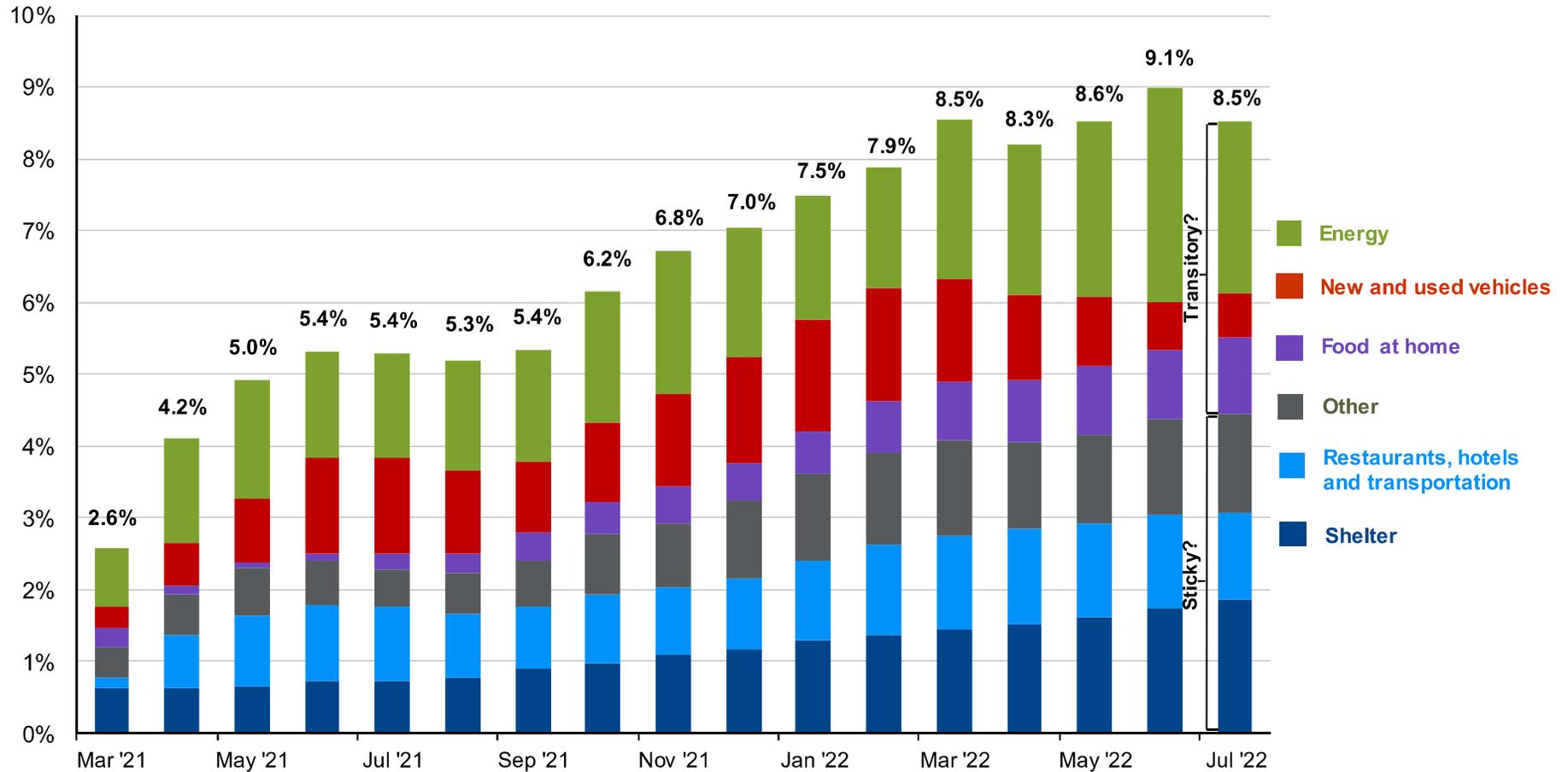


Inflation has begun to moderate, but how much further?

Economy

Contributors to headline inflation

Contribution to y/y % change in CPI, non seasonally adjusted



Source: BLS, J.P. Morgan Asset Management. Contributions mirror the BLS methodology on Table 7 of the CPI report. Values may not sum to headline CPI figures due to rounding and underlying calculations. "Shelter" includes owners equivalent rent and rent of primary residence. "Other" primarily reflects household furnishings, apparel, education and communication services, medical care services and other personal services.

Guide to the Markets – U.S. Data are as of August 31, 2022.



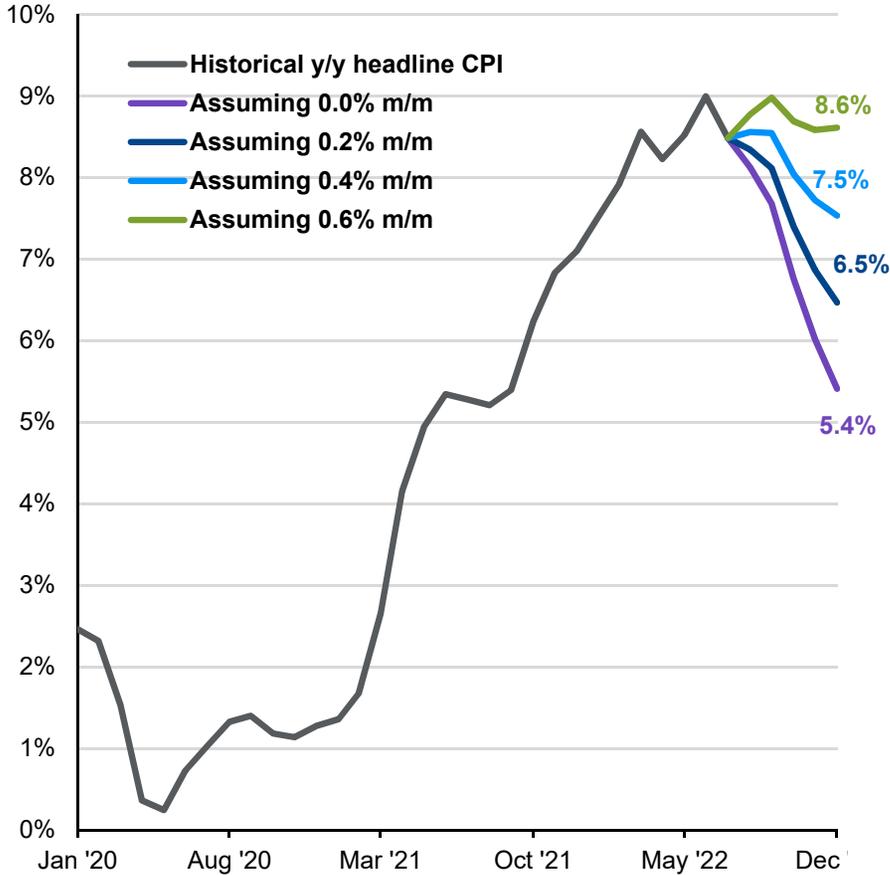
Not enough for Fed officials by year-end

GTM | U.S.

Economy

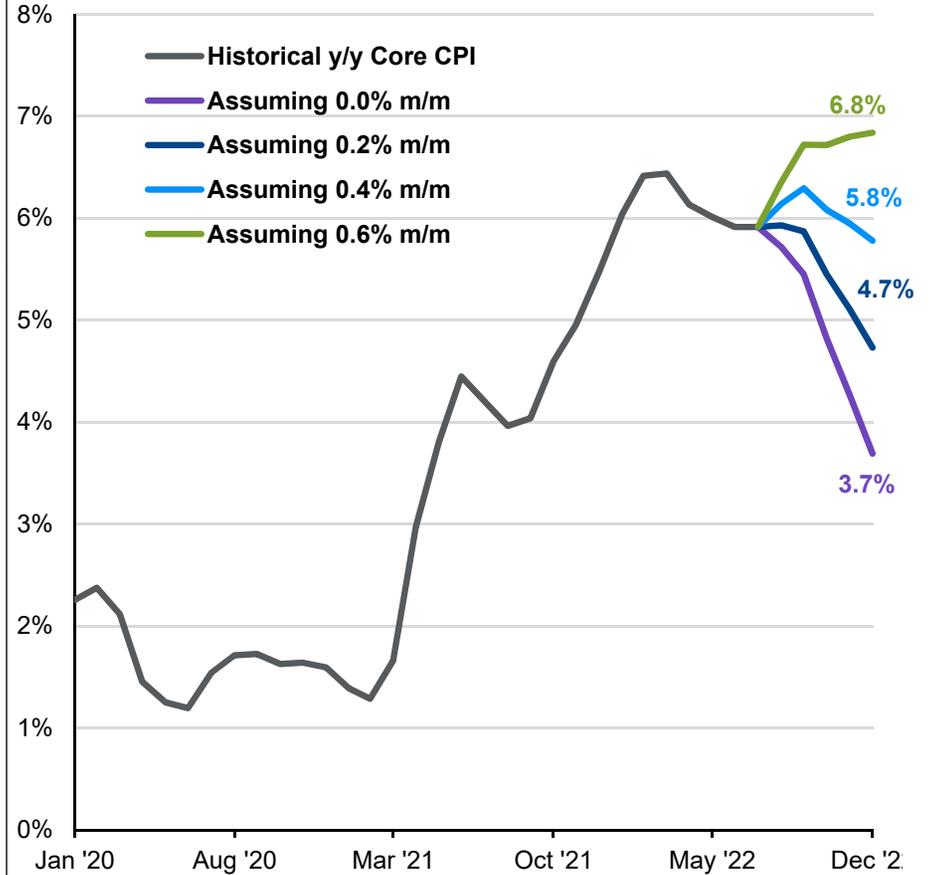
Potential pathways for inflation

Headline CPI, seasonally adjusted, forecasts post July-2022



Potential pathways for inflation

Core CPI, seasonally adjusted, forecasts post July-2022



Source: BLS, FactSet, J.P. Morgan Asset Management.

J.P.Morgan
ASSET MANAGEMENT

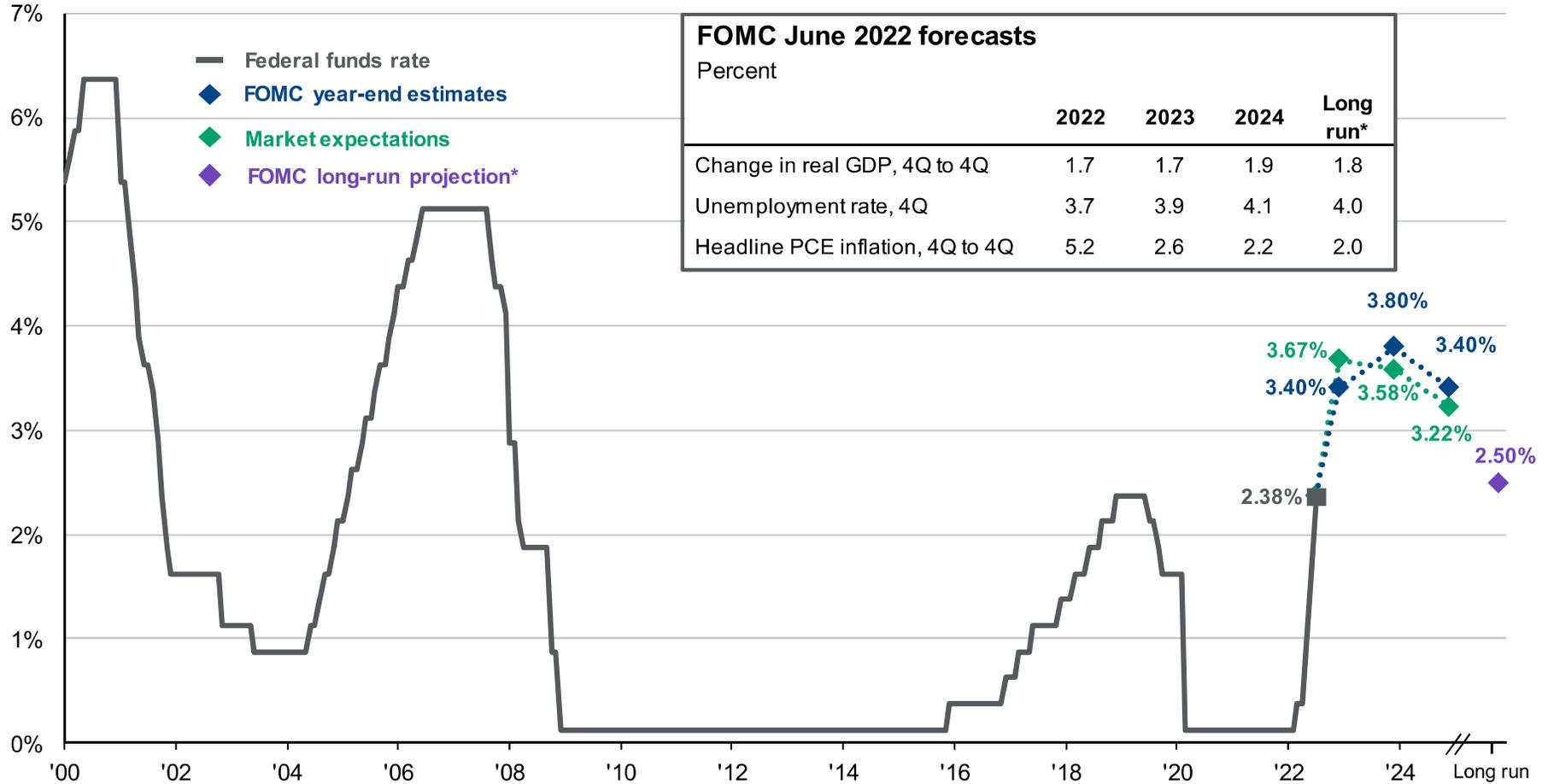


Thus, the Fed has turned hawkish to crush inflation...

Fixed Income

Federal funds rate expectations

FOMC and market expectations for the federal funds rate



Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management.

Market expectations are based off of the respective Federal Funds Futures contracts for December expiry. *Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.

Guide to the Markets – U.S. Data are as of August 31, 2022.

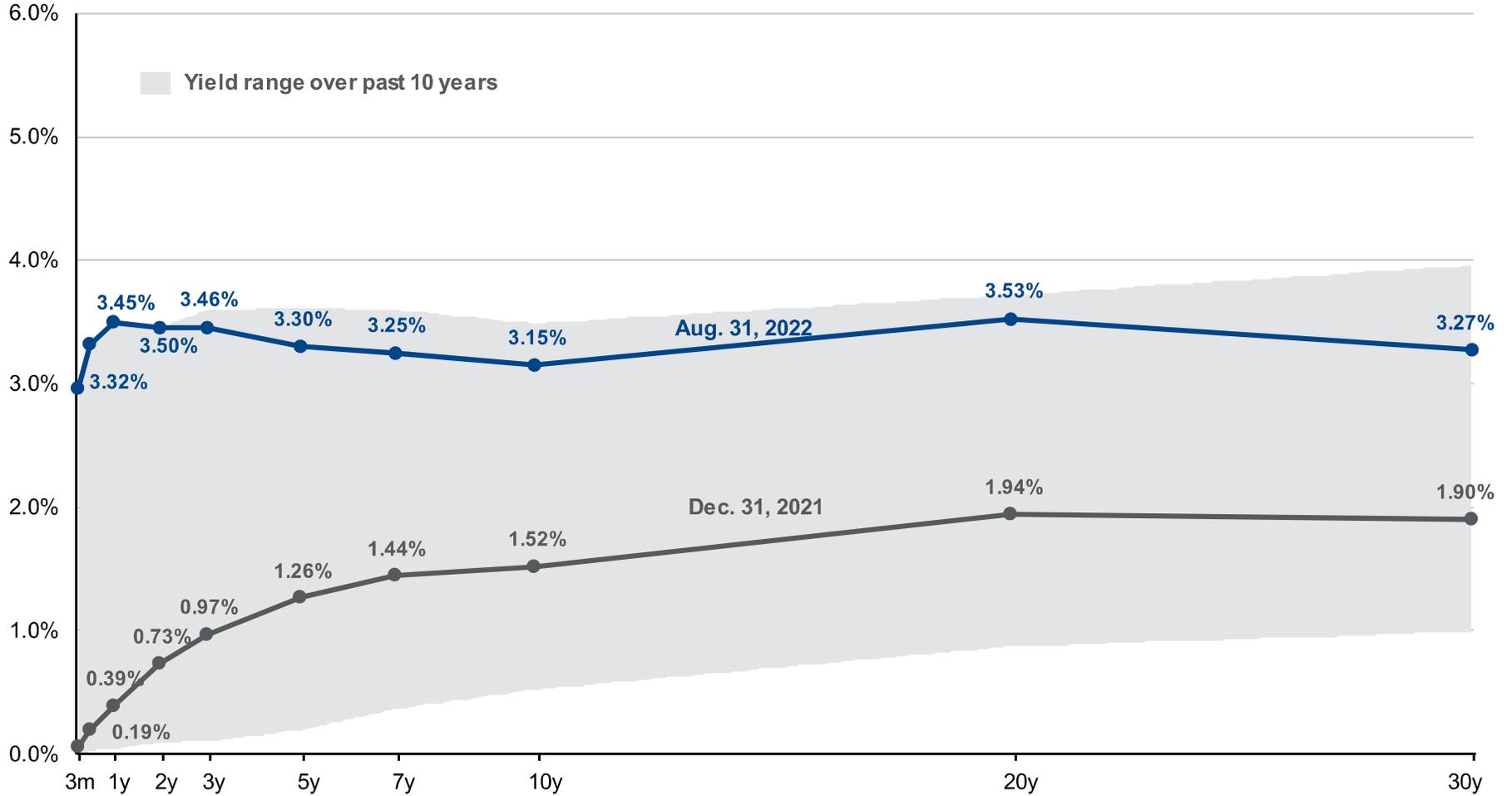


...pushing yields higher and inverting the curve.

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Fixed Income

U.S. Treasury yield curve



Source: FactSet, Federal Reserve, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of August 31, 2022.

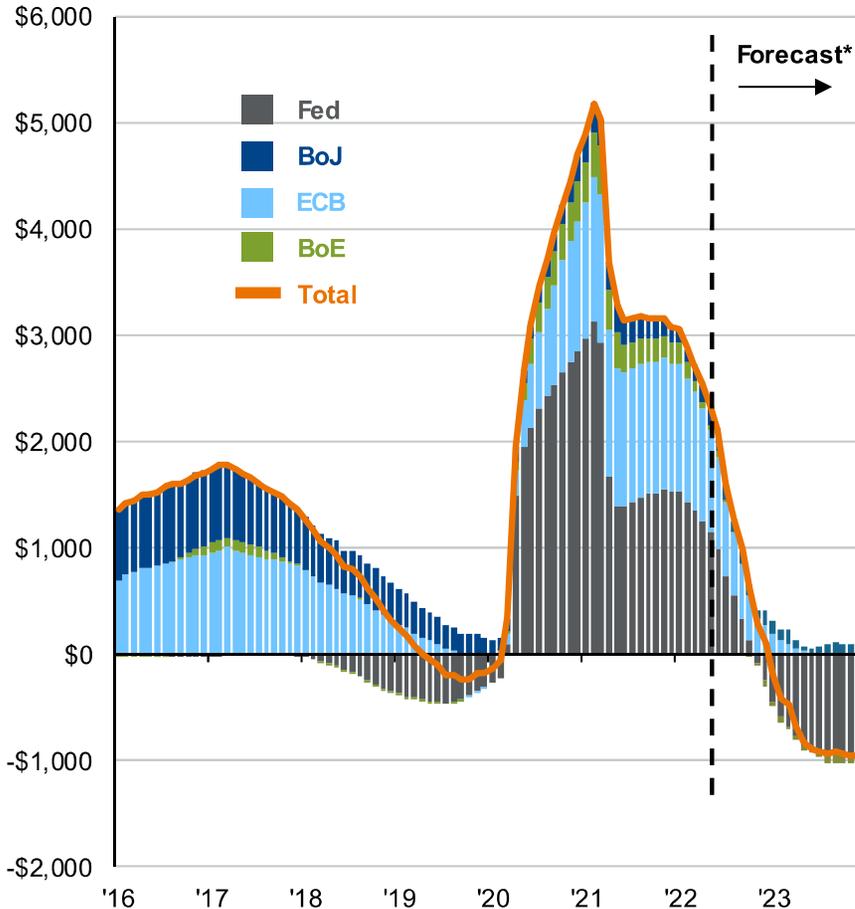


Hawkish central banks are everywhere

Fixed Income

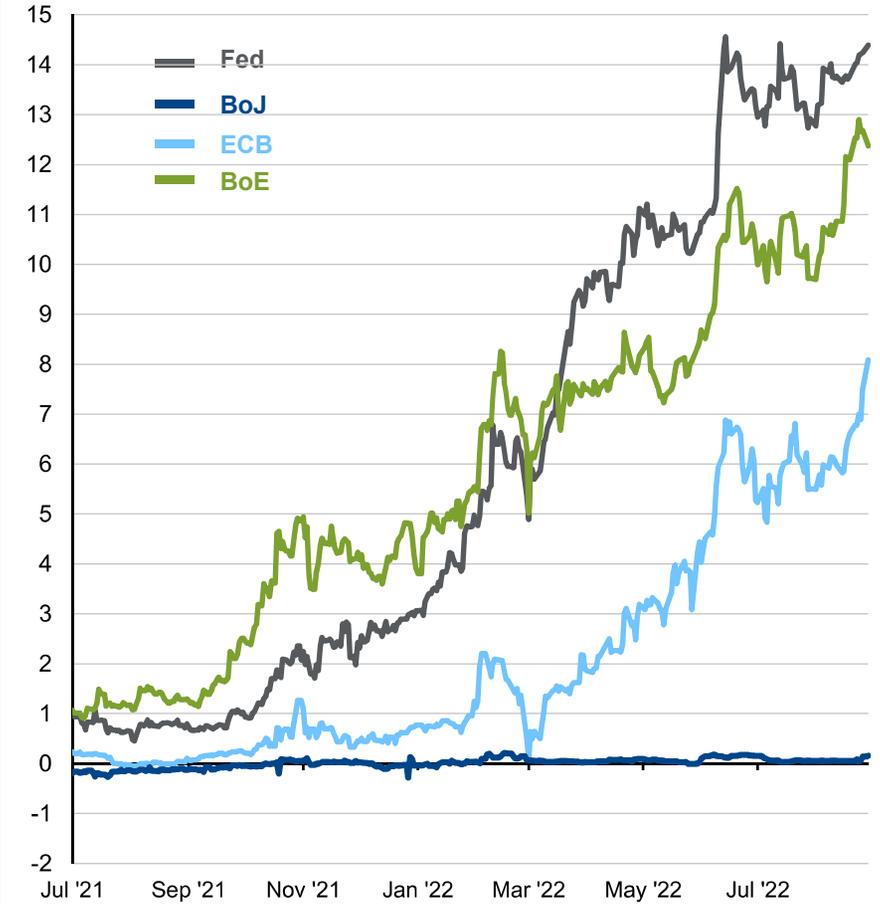
Developed market central bank bond purchases

USD billions, 12-month rolling flow



Market pricing for central bank hikes in 2022

Number of 25bp hikes priced into OIS contracts for year-end 2022**



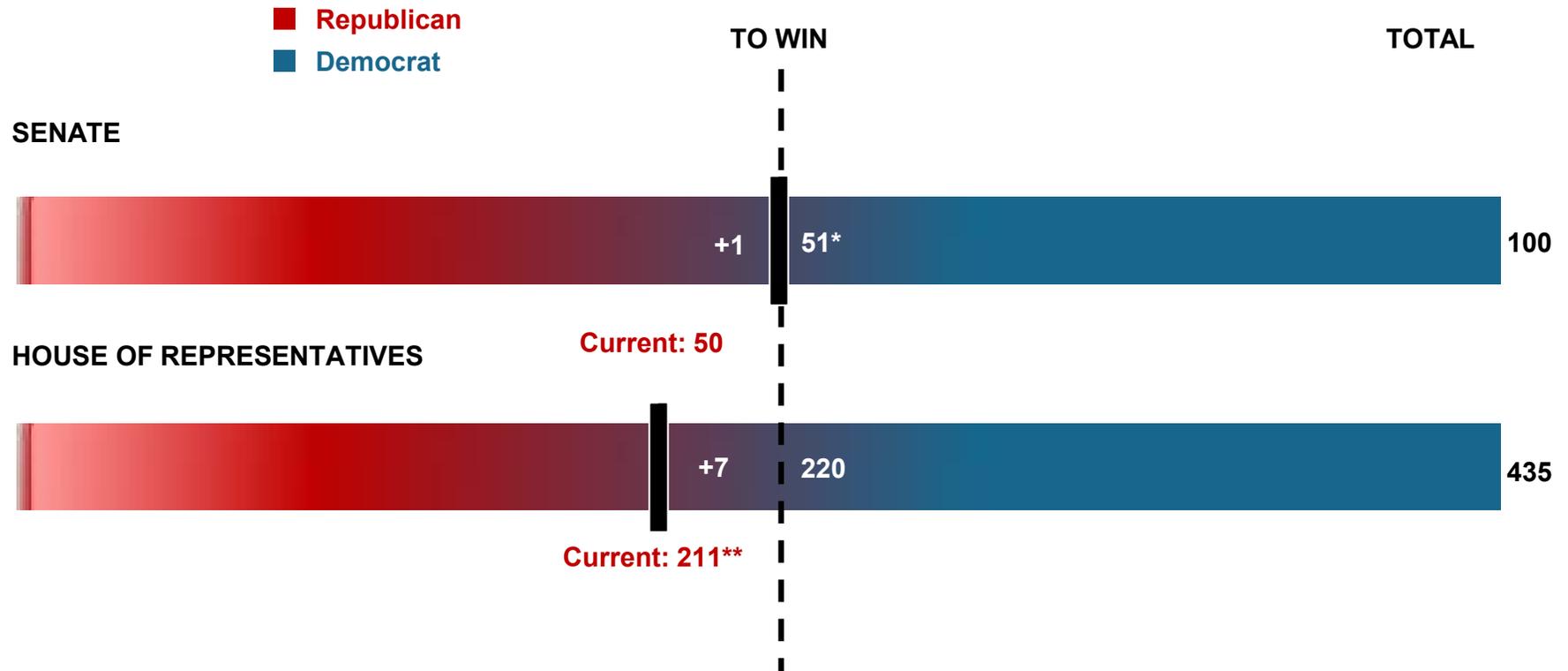
Source: BIS, Bloomberg, FactSet, J.P. Morgan Asset Management; (Left) Bank of England (BoE), Bank of Japan (BoJ), European Central Bank (ECB), Federal Reserve System (Fed), J.P. Morgan Global Economic Research. *DM bond purchase forecasts are internal assumptions based on government bond purchases as outlined in the most recent monetary policy announcements from the BoE, BoJ, ECB and Federal Reserve through December 2023. **Rate hikes shown are cumulative and reflect hikes delivered year-to-date. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and are not a reliable indicator of future performance. Given the inherent uncertainties and risks associated with forecast, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.

Guide to the Markets – U.S. Data are as of August 31, 2022.



Democrats hold a razor-thin majority of seats in Congress

Votes or seats in the Senate and House of Representatives



Source: 270toWin, The Cook Political Report, J.P. Morgan Asset Management. 51 seats are needed for a simple majority if the dominant party in the Senate is not represented in the White House. If the president and majority party are the same, only 50 seats are needed for a majority because the Vice President casts the tie-breaking vote. **Current House excludes 4 vacant seats, three previously held by Republicans, and 1 previously held by a Democrat. Data are as of August 31, 2022.



With divided government as the most likely outcome, significant policy actions after the midterms are unlikely

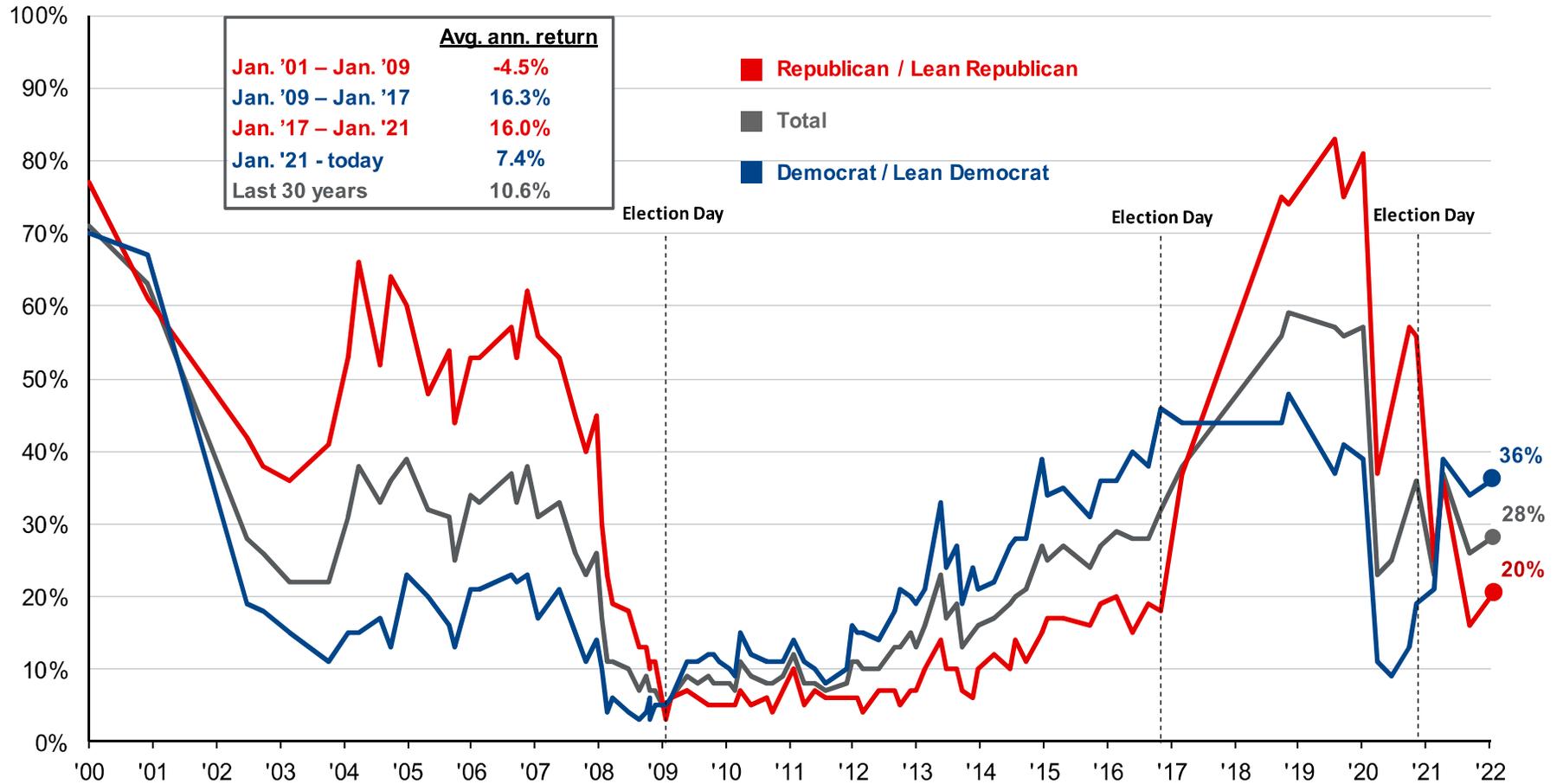
	Before Midterms	After Midterms	Comments
DEMOCRATIC POLICY AMBITIONS			
Inflation Reduction Act	✓	▼	<ul style="list-style-type: none"> - Raises \$739bn through 15% corp. min. tax on companies with \$1 billion+ in profits, 1% tax on stock buybacks, drug pricing reform, and greater IRS enforcement - Spends \$433bn on climate initiatives and health care subsidies - Further tax reform after midterms unlikely
AREAS FOR COMPROMISE			
Infrastructure	✓		\$1.2 trillion package passed last year
Energy		?	Soaring energy prices could prompt marginal cooperation on fossil fuels (e.g. leasing for oil and gas drilling on federal lands)
Defense		?	War in Ukraine could prompt cooperation on defense spending (Congress has committed \$14bn + \$40bn)
China	✓	?	\$280bn CHIPS Act to advance the U.S.'s technological edge and protect from competition from China. Further scope for collaboration on China.
POTENTIAL STANDOFFS			
Government shutdown		▲	Shutdowns may continue to be a political weapon
Debt ceiling crisis		▼	Unlikely to approach debt ceiling until 2024

Source: J.P. Morgan Asset Management. Data are as of August 10, 2022.



Don't let how you feel about politics overrule how you think about investing.

Percent of Republicans and Democrats who rate national economic conditions as excellent or good



Investing Principles

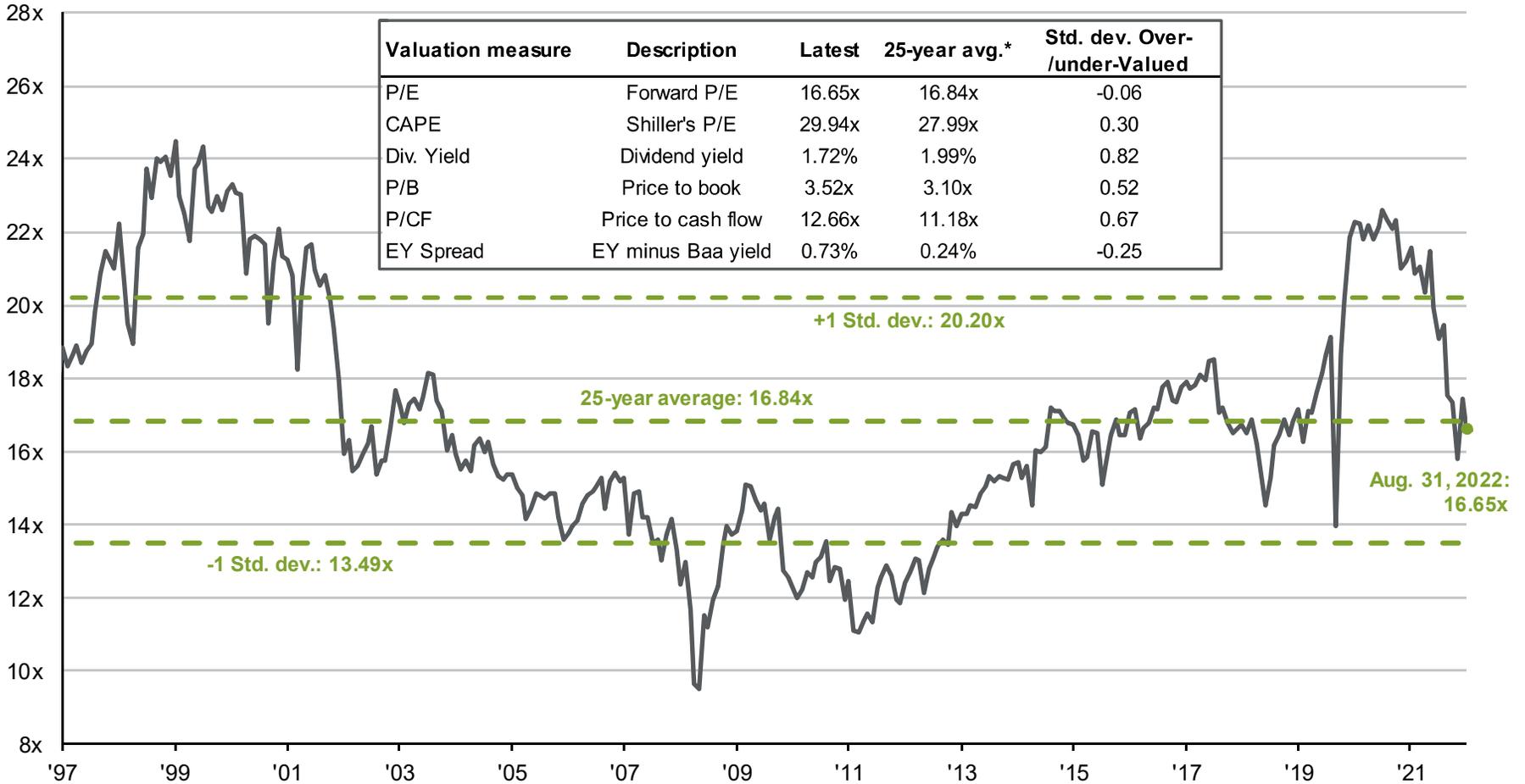
Source: Pew Research Center, J.P. Morgan Asset Management. Pew Research Center, June 2020, "Republicans, Democrats Move Even Further Apart in Coronavirus Concerns". Question: Thinking about the nation's economy, How would you rate economic conditions in this country today... as excellent, good, only fair, or poor? The survey was last conducted in January 2022.
 Guide to the Markets – U.S. Data are as of August 10, 2022.



Equity valuations have improved

Equities

S&P 500 Index: Forward P/E ratio



Source: FactSet, FRB, Refinitiv Datastream, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management. Price-to-earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since August 1997 and by FactSet since January 2022. Current next 12-months consensus earnings estimates are \$240. Average P/E and standard deviations are calculated using 25 years of history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-months consensus dividend divided by most recent price. Price-to-book ratio is the price divided by book value per share. Price-to-cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. Std. dev. over-/under-valued is calculated using the average and standard deviation over 25 years for each measure. *P/CF is a 20-year average due to cash flow availability. *Guide to the Markets – U.S.* Data are as of August 31, 2022.

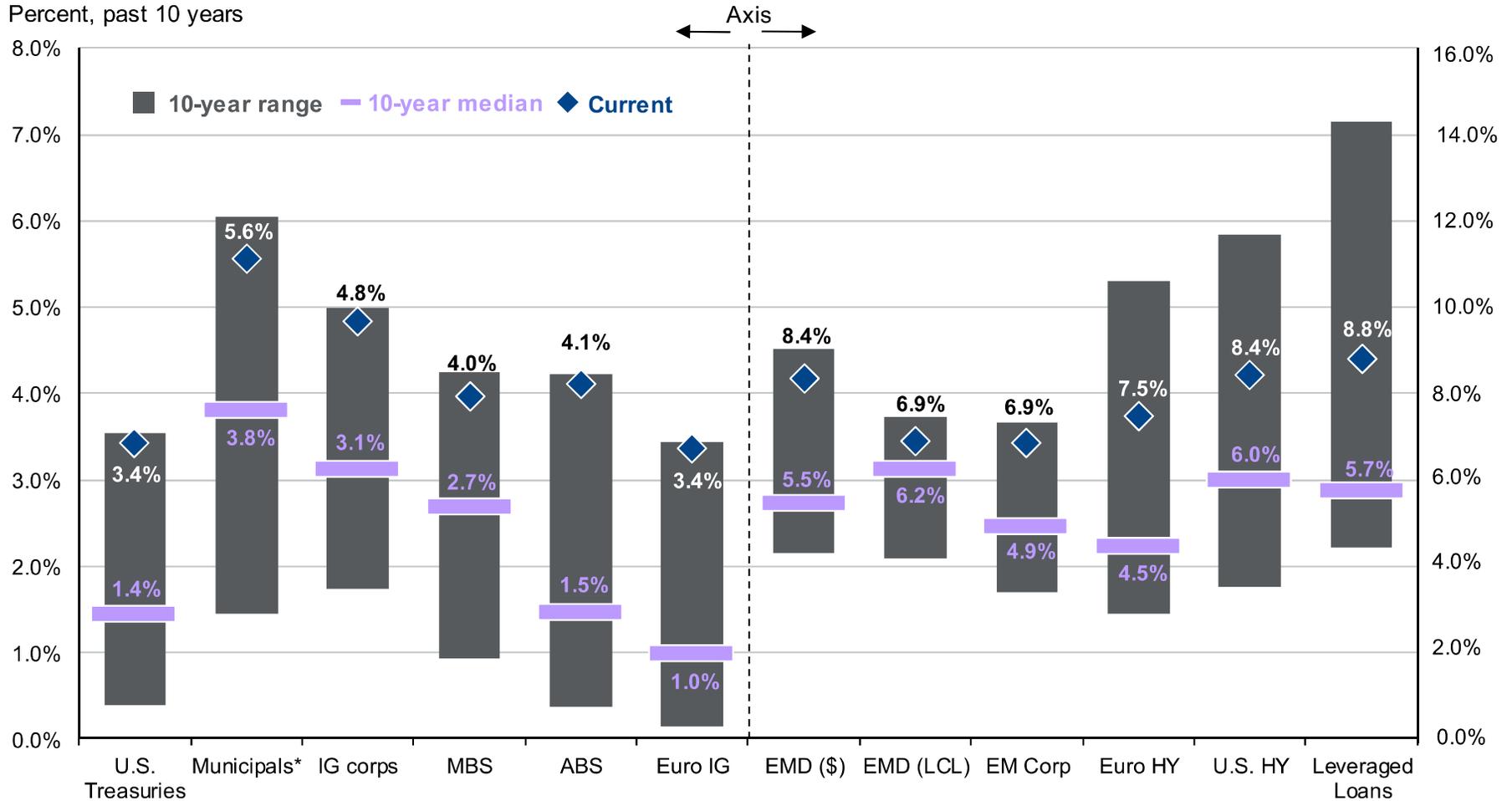


Bonds look attractive relative to recent history

Fixed Income

Yield-to-worst across fixed income sectors

Percent, past 10 years



Source: Bloomberg, FactSet, J.P. Morgan Credit Research, J.P. Morgan Asset Management. Indices used are Bloomberg except for emerging market debt and leveraged loans: EMD (\$): J.P. Morgan EMIGLOBAL Diversified Index; EMD (LCL): J.P. Morgan GBI-EM Global Diversified Index; EM Corp.: J.P. Morgan CEMBI Broad Diversified; Leveraged loans: JPM Leveraged Loan Index; Euro IG: Bloomberg Euro Aggregate Corporate Index; Euro HY: Bloomberg Pan-European High Yield Index. Yield-to-worst is the lowest possible yield that can be received on a bond apart from the company defaulting. All sectors shown are yield-to-worst except for Municipals, which is based on the tax-equivalent yield-to-worst assuming a top-income tax bracket rate of 37% plus a Medicare tax rate of 3.8%.
 Guide to the Markets – U.S. Data are as of August 31, 2022.

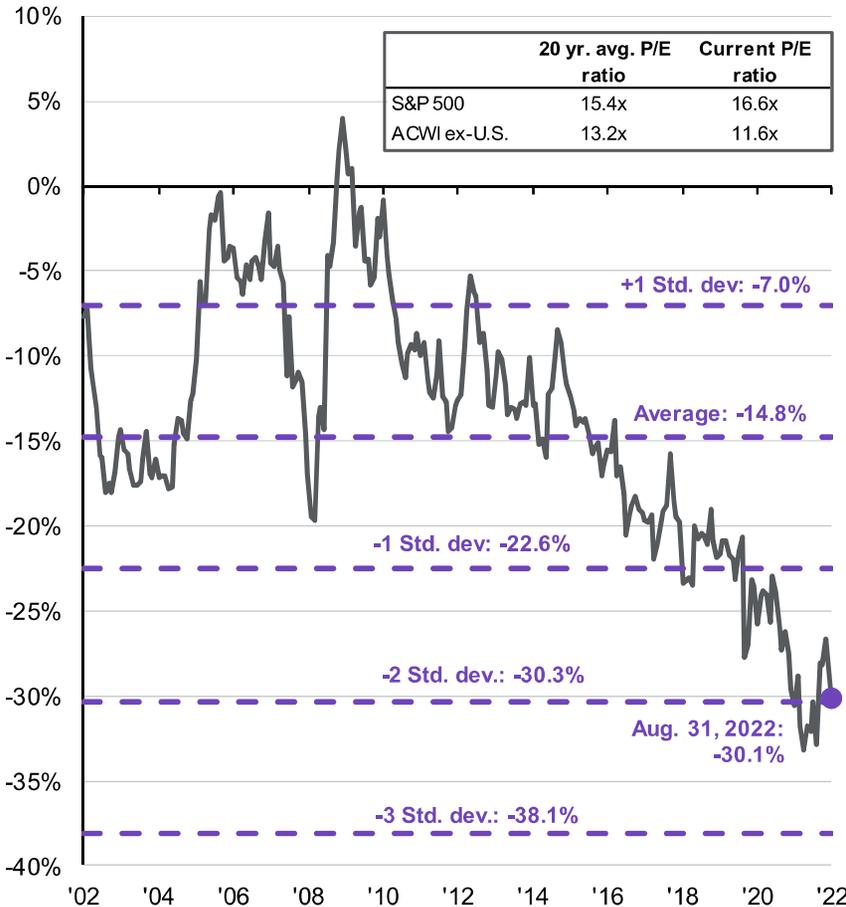


International trades at a steep discount to the U.S.

International

International: Price-to-earnings discount vs. U.S.

MSCI AC World ex-U.S. vs. S&P 500 Indices, next 12 months



International: Difference in dividend yields vs. U.S.

MSCI AC World ex-U.S. minus S&P 500 Indices, next 12 months

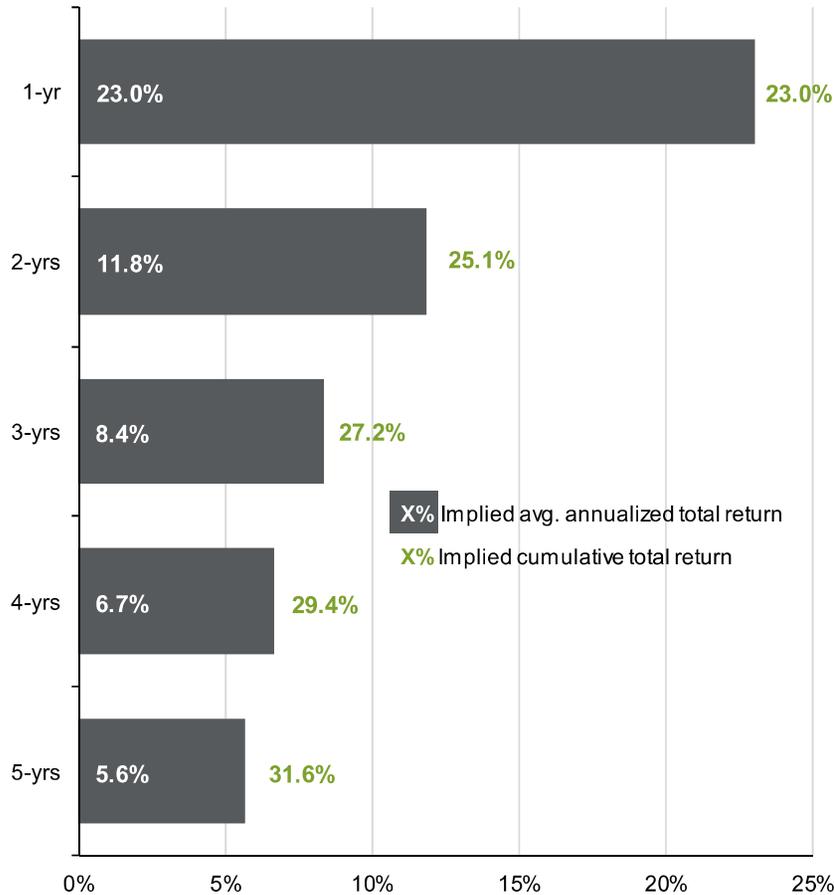


Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of August 31, 2022.



Not a question of “If?”, but “when?” markets return to previous peak

Return needed to reach January 2022 peak Current S&P 500 peak is 4797



Bull and bear markets

Bull markets			Bear markets		
Bull begin date	Bull return	Duration (months)	Market peak	Bear return*	Duration (months)*
Jul 1926	152%	37	Sep 1929	-86%	32
Mar 1935	129%	23	Mar 1937	-60%	61
Apr 1942	158%	49	May 1946	-30%	36
Jun 1949	267%	85	Aug 1956	-22%	14
Oct 1960	39%	13	Dec 1961	-28%	6
Oct 1962	76%	39	Feb 1966	-22%	7
Oct 1966	48%	25	Nov 1968	-36%	17
May 1970	74%	31	Jan 1973	-48%	20
Mar 1978	62%	32	Nov 1980	-27%	20
Aug 1982	229%	60	Aug 1987	-34%	3
Oct 1990	417%	113	Mar 2000	-49%	30
Oct 2002	101%	60	Oct 2007	-57%	17
Mar 2009	401%	131	Feb 2020	-34%	1
Mar 2020	114%	21	Jan. 2022**	-24%	5
Averages	162%	51	-	-41%	20

Source: FactSet, NBER, Robert Shiller, Standard & Poor’s, J.P. Morgan Asset Management. (Right) The current peak of 4797 was observed on January 3, 2022. The current market level as of August 31, 2022 is 4119. (Left) *A bear market is defined as a 20% or more decline from the previous market high. The related market return is the peak to trough return over the cycle. Bear and bull returns are price returns. **The bear market beginning in January 2022 is currently ongoing. The “bear return” for this period is from the January 2022 market peak through the current trough. Averages for the bear market return and duration do not include figures from the current cycle.
Guide to the Markets – U.S. Data are as of August 31, 2022.



Alts in aggregate

Alternative can enhance diversification in portfolios through non-correlated or negatively correlated returns

GTA U.S. 6

Public and private market correlations Quarterly returns

2008 - 2021		Global Bonds	Global Equities	U.S. Core RE	Europe Core RE*	APAC Core RE	Global Core Infra	Transport	Timber	Direct Lending	Venture Capital	Private Equity	Equity Long/Short	Relative Value	Macro	Bitcoin
Financial assets	Global Bonds	1.0														
	Global Equities	0.3	1.0													
Global real estate	U.S. Core RE	-0.2	0.1	1.0												
	Europe Core RE*	-0.2	0.3	0.8	1.0											
	APAC Core RE	-0.2	0.1	0.9	0.7	1.0										
Real assets	Global Core Infra	-0.1	-0.1	0.3	0.1	0.2	1.0									
	Transport	-0.2	0.0	0.6	0.5	0.6	0.0	1.0								
	Timber	-0.2	-0.1	0.2	0.2	0.2	0.2	0.1	1.0							
Private markets	Direct Lending	0.0	0.7	0.3	0.4	0.3	0.2	0.3	-0.1	1.0						
	Venture Capital	0.0	0.6	0.3	0.6	0.3	0.1	0.2	0.1	0.5	1.0					
	Private Equity	0.2	0.9	0.3	0.5	0.4	0.0	0.2	-0.1	0.8	0.8	1.0				
Hedge funds	Equity Long/Short	0.2	0.9	0.0	0.2	0.0	0.0	0.2	-0.1	0.7	0.7	0.9	1.0			
	Relative Value	0.2	0.9	-0.1	0.2	0.0	0.0	0.0	-0.2	0.9	0.5	0.8	0.9	1.0		
Crypto	Macro	0.3	0.4	-0.1	0.0	-0.1	-0.1	-0.3	0.0	0.2	0.4	0.3	0.5	0.4	1.0	
	Bitcoin	0.1	0.1	0.2	-0.2	0.1	0.5	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.0	1.0

Source: MSCI, Bloomberg, Burgiss, NCREIF, Cliffwater, HFRI, J.P. Morgan Asset Management. *Europe Core RE includes continental Europe. Private Equity and Venture Capital are time weighted returns from Burgiss. RE – real estate. Global equities: MSCI AC World Index. Global Bonds: Bloomberg Global Aggregate Index. U.S. Core Real Estate: NCREIF Property Index – Open End Diversified Core Equity component. Europe Core Real Estate: MSCI Global Property Fund Index – Continental Europe. Asia Pacific (APAC) Core Real Estate: MSCI Global Property Fund Index – Asia-Pacific. Global infrastructure (Infra.): MSCI Global Quarterly Infrastructure Asset Index (equal-weighted blend). U.S. Direct Lending: Cliffwater Direct Lending Index. Timber: NCREIF Timberland Property Index (U.S.). Hedge fund indices include equity long/short, relative value, and global macro and are all from HFRI. Transport: returns are derived from a J.P. Morgan Asset Management index. All correlation coefficients are calculated based on quarterly total return data for the period 6/30/2008 – 12/31/2021, except correlations with Bitcoin which are calculated over the period 12/31/2010 – 12/31/2021. Returns are denominated in USD.
Data is based on availability as of August 31, 2022.

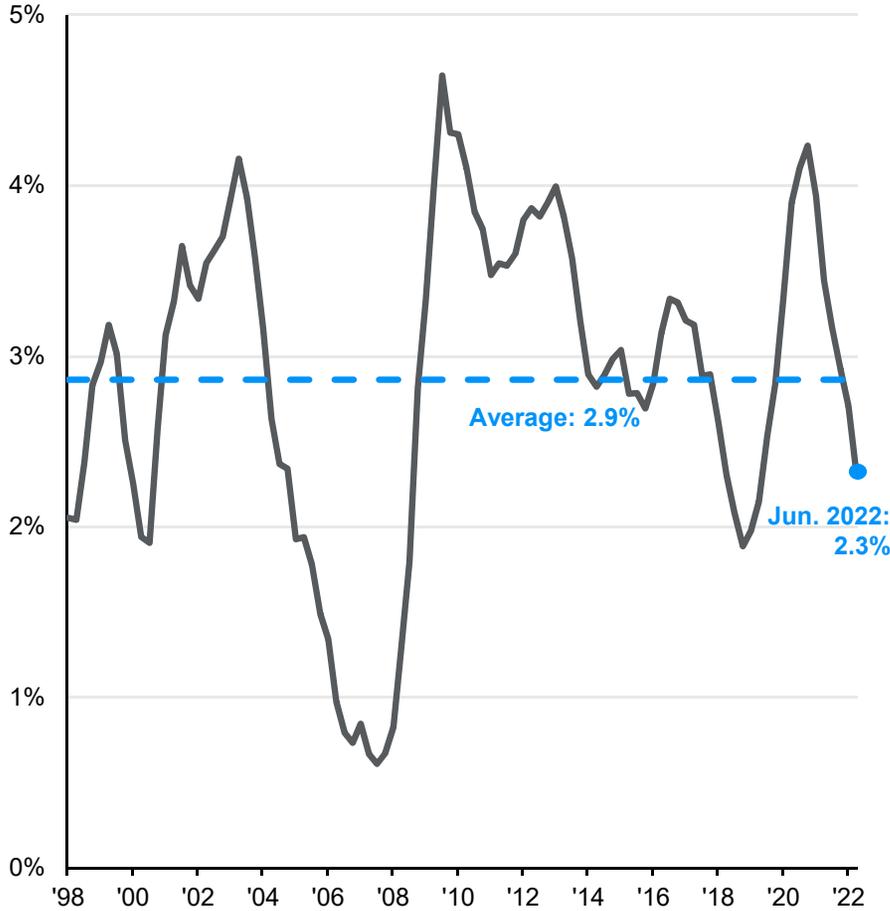


Stress in real estate is relatively contained

Real estate

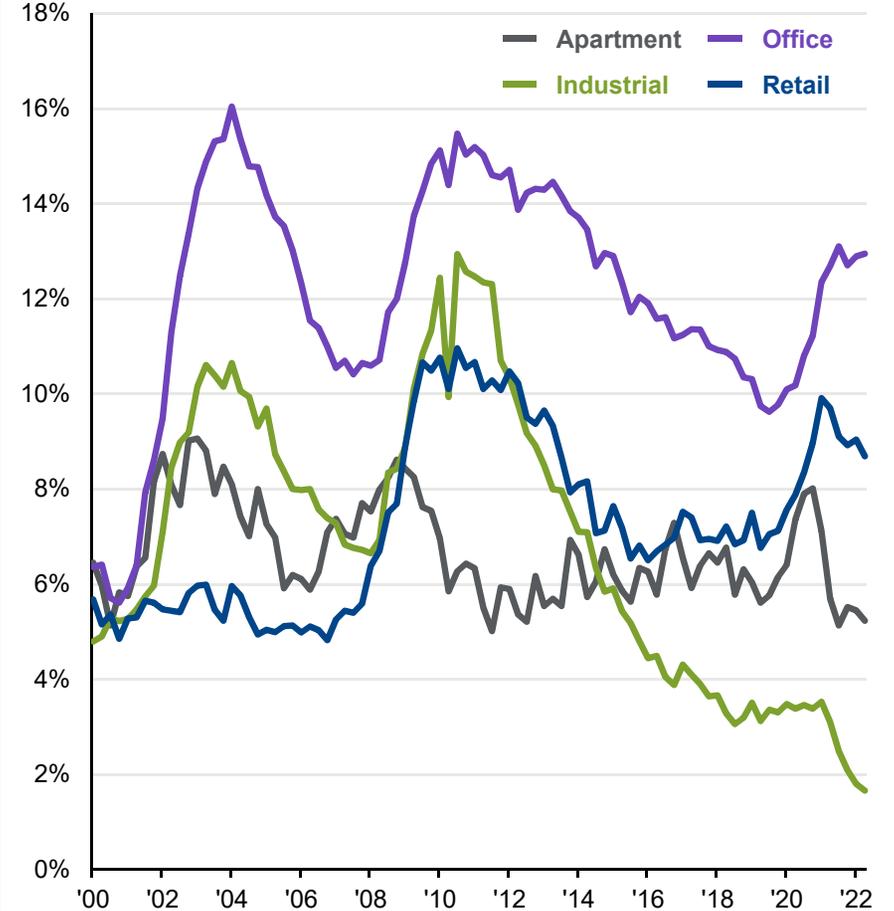
U.S. real estate cap rate spreads

Transaction based, spread to 10y UST, 4-quarter rolling average



U.S. vacancy rates by property type

Percent



Source: NCREIF, NAREIT, Statista, J.P. Morgan Asset Management.
 The cap rate, which is computed as the net operating income over sales price, is the rate of return on a real estate investment property. Vacancy rate data is as of June 30, 2022.
 Data is based on availability as of August 31, 2022.

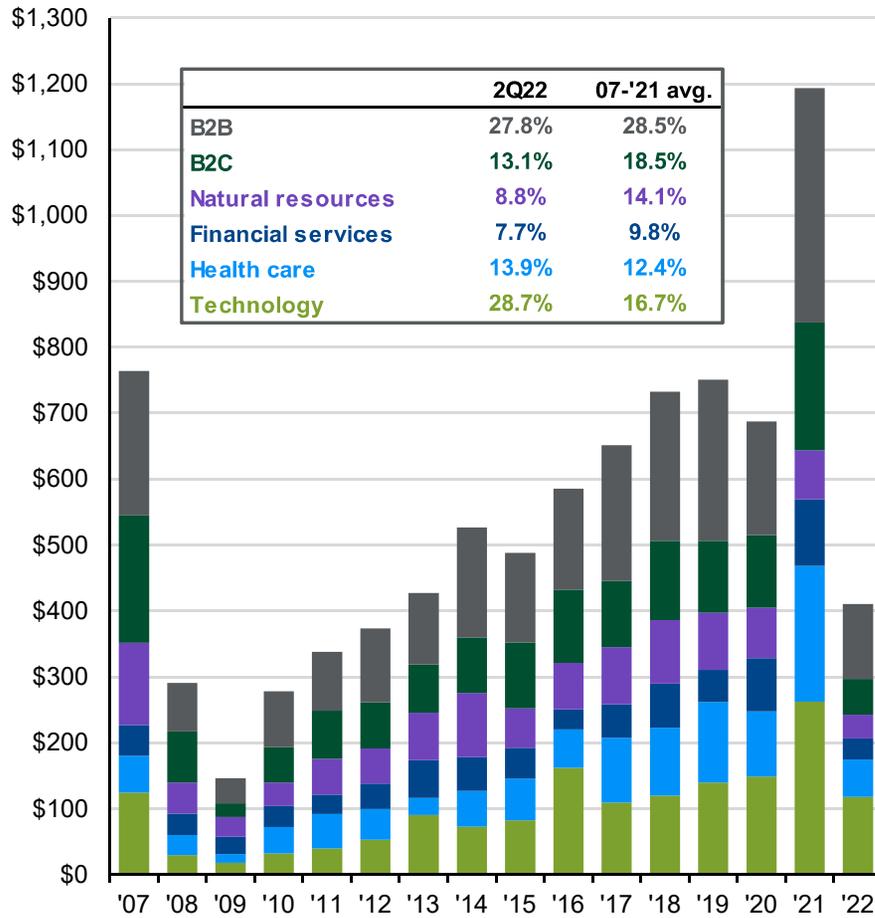


Private equity deals and exits

Private markets

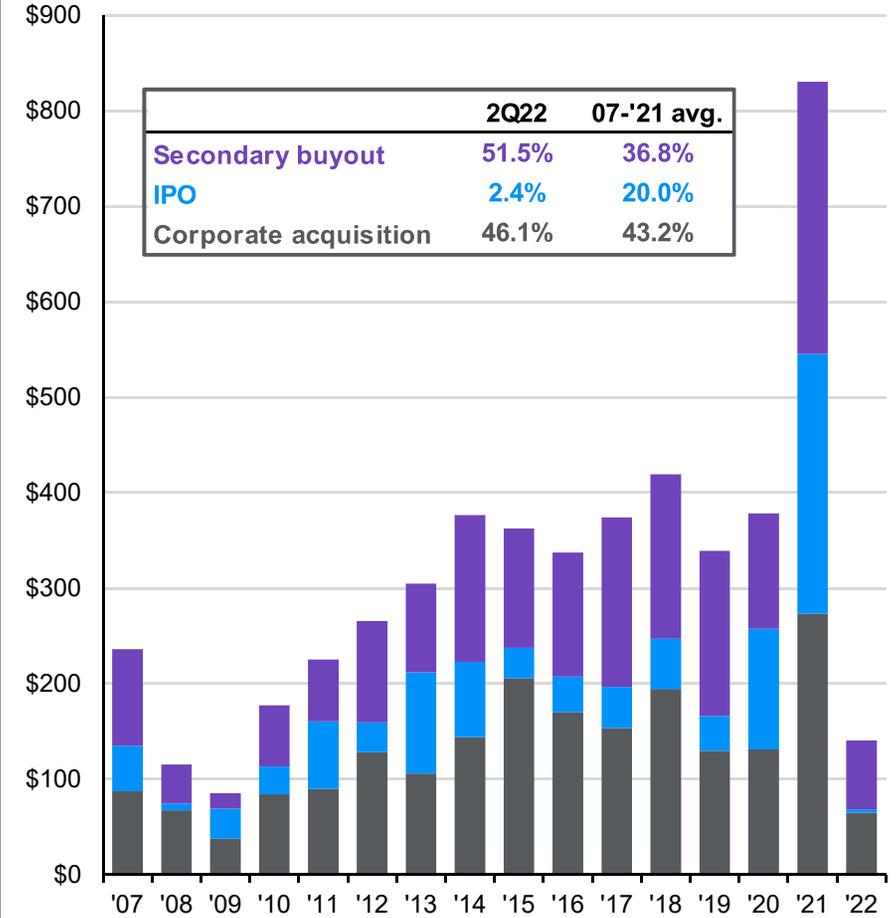
U.S. private equity deals

USD billions



Private equity exits by type

USD billions



Source: PitchBook, J.P. Morgan Asset Management.

B2B is business to business. B2C is business to consumer. Natural resources = Materials & resources and energy. Private equity deal and exit data are as of June 30, 2022.

Data is based on availability as of August 31, 2022.



Summary

GTM

U.S.

- Pandemic restrictions have eased, and consumer balance sheets remain healthy suggesting demand in the economy remains healthy.
- Job growth is expected to slow from its robust pace in 1H22, but still be positive, likely pushing the unemployment rate to 3.4% by the end of the year.
- After a stellar year for corporate earnings, we still expect ~8% earnings growth this year, though margins pose the biggest risk to profitability. 2023 earnings estimates still look overly optimistic in our view.
- Continued conflict in Eastern Europe and persistent supply chain issues suggest headline inflation will run north of 5% this year and trend lower to 3.5% next year. Strong job gains and persistent high inflation likely keep the Fed hiking to 4% next year. We expect long rates remain range bound, hovering between 3.00%-3.50%.
- As recession risks rise, investors should strike a balance between value and growth in equities, gradually increase benchmark duration to neutral and embrace high-quality fixed income; after a mixed 2021, international markets present new opportunities. Alternatives can continue to provide portfolio diversification.

All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

Equities:

The **Dow Jones Industrial Average** is a price-weighted average of 30 actively traded blue-chip U.S. stocks.

The **MSCI ACWI (All Country World Index)** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

The **MSCI EAFE Index (Europe, Australasia, Far East)** is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

The **MSCI Europe Index** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The **MSCI Pacific Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region.

The **Russell 1000 Index®** measures the performance of the 1,000 largest companies in the Russell 3000.

The **Russell 1000 Growth Index®** measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 1000 Value Index®** measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 2000 Index®** measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The **Russell 2000 Growth Index®** measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 2000 Value Index®** measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 3000 Index®** measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The **Russell Midcap Index®** measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **Russell Midcap Growth Index®** measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index.

The **Russell Midcap Value Index®** measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

Fixed income:

The **Bloomberg Barclays 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Bloomberg Barclays Global High Yield Index** is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. Until January 1, 2011, the index also included CMBS high yield securities.

The **Bloomberg Barclays Municipal Index**: consists of a broad selection of investment-grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The **Bloomberg Barclays US Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

The **Bloomberg Barclays US Corporate Investment Grade Index** is an unmanaged index consisting of publicly issued US Corporate and specified foreign debentures and secured notes that are rated investment grade (Baa3/BBB or higher) by at least two ratings agencies, have at least one year to final maturity and have at least \$250 million par amount outstanding. To qualify, bonds must be SEC-registered.

The **Bloomberg Barclays US High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

The **Bloomberg Barclays US Mortgage Backed Securities Index** is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

The **Bloomberg Barclays US TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan Emerging Market Bond Global Index (EMBI)** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified)** is an expansion of the **J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI)**. The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging market corporate bonds.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **J.P. Morgan GBI EM Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.

Other asset classes:

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

The **Cambridge Associates U.S. Global Buyout and Growth Index®** is based on data compiled from 1,768 global (U.S. & ex – U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

The **CS/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US\$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **HFRI Monthly Indices (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **NFI-ODCE**, short for NCREIF Fund Index - Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

Definitions:

Investing in **alternative assets** involves higher risks than traditional investments and is appropriate only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

Bonds are subject to interest rate risks. Bond prices generally fall when interest rates rise.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

Derivatives may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

Distressed Restructuring Strategies employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

The price of **equity** securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

Equity market neutral strategies employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

Global macro strategies trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

International investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

Merger arbitrage strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

Mid-capitalization investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

Price to forward earnings is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

Real estate investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

Relative Value Strategies maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

Small-capitalization investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.

The Market Insights program provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the program explores the implications of current economic data and changing market conditions.

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Prepared by: Stephanie Aliaga, Jordan K. Jackson, David M. Lebovitz, John C. Manley, Meera Pandit, Gabriela D. Santos, Nimish Vyas and David P. Kelly.

Unless otherwise stated, all data are as of March 31, 2021 or most recently available.

Guide to the Markets – U.S.

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Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item: UTIMCO Update

Developed By: Hall

Presented By: Hall

Type of Item: Information Item

Description: Rich Hall will review UTIMCO's performance.

Reference: *UTIMCO Performance Update* presentation



UTIMCO Performance Update

Board of Directors Meeting
September 15, 2022
Rich Hall, Chief Investment Officer

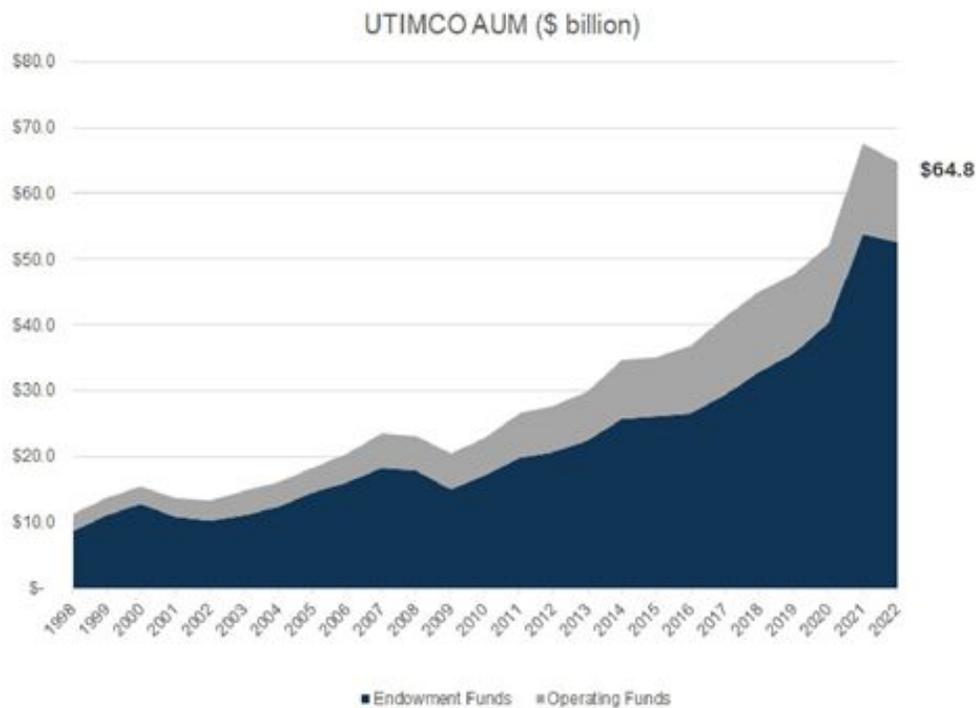
Portfolio Performance





Growth in Assets Under Management (AUM)

Total Assets through June 30, 2022



3 Month Change in AUM

	\$ Billion
Beginning Net Asset Value (NAV)	67.8
Contributions	0.9
Net Investment Income	-3.3
Distributions	-0.6
Ending Net Asset Value	64.8

3 Year Change in AUM

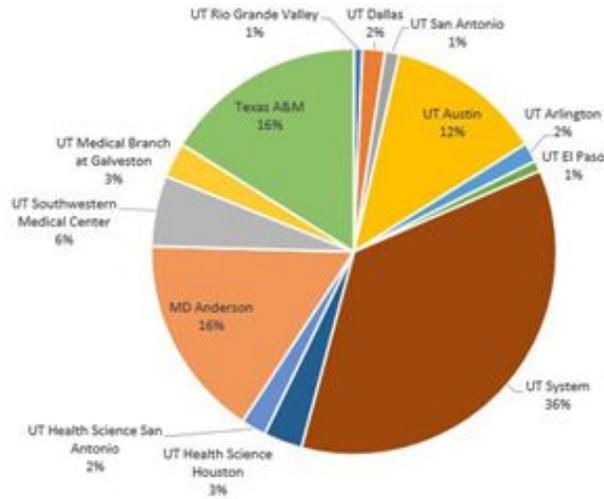
	\$ Billion
Beginning Net Asset Value	47.3
Contributions	8.9
Net Investment Income	16.7
Distributions	-8.1
Ending Net Asset Value	64.8



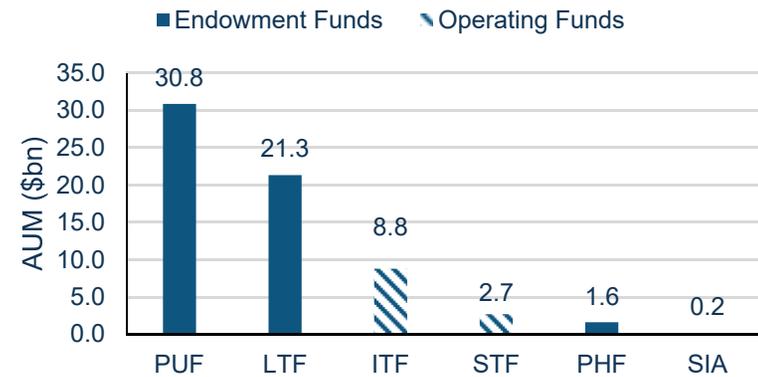
AUM Breakdown

As of June 30, 2022

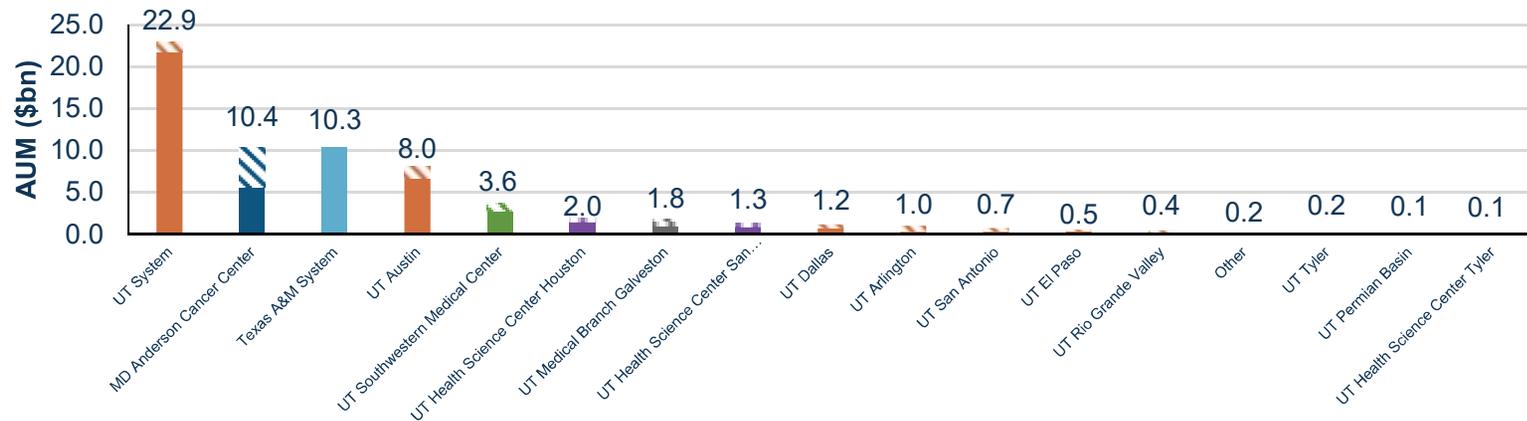
AUM by Institution (%)



AUM by Fund



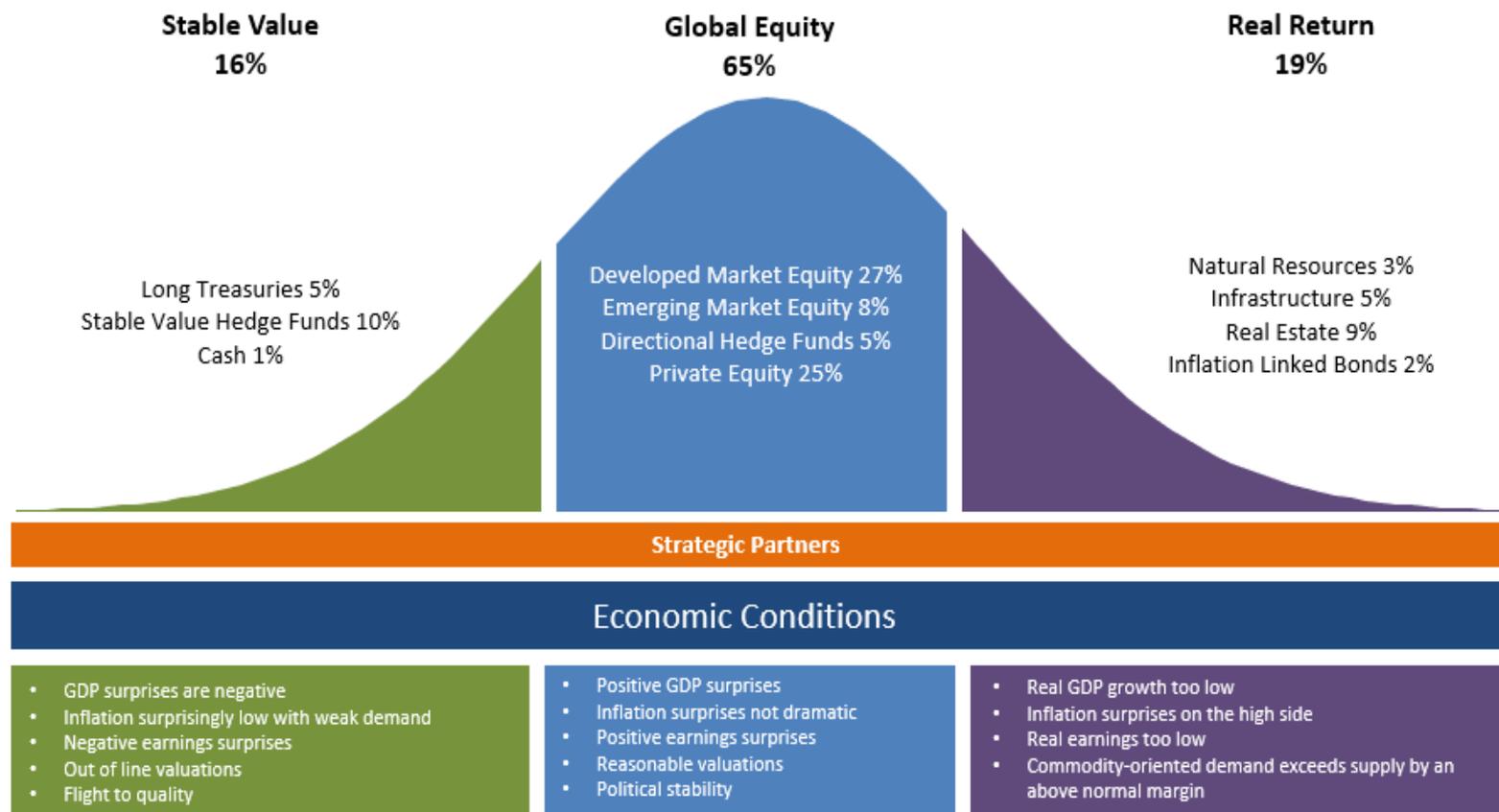
AUM by Institution (\$)





UTIMCO Diversification Framework

Returns as of June 30, 2022



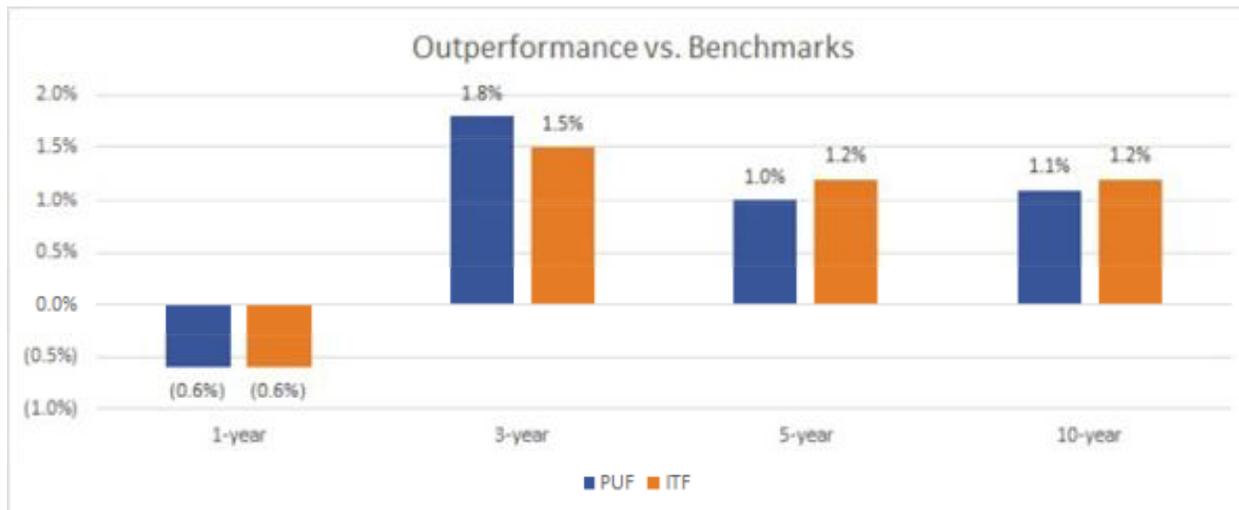
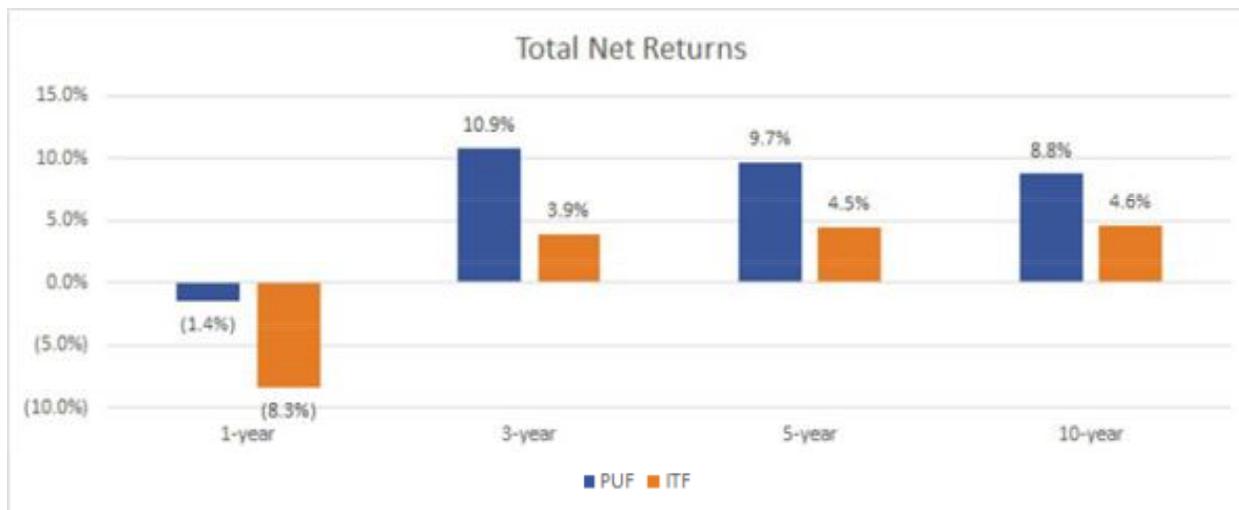
*LTSAA Policy Weights

Annualized Returns			Annualized Returns			Annualized Returns		
1 Yr	3 Yr	10 Yr	1 Yr	3 Yr	10 Yr	1 Yr	3 Yr	10 Yr
0.1	3.4	2.4	(5.5)	13.3	10.6	17.9	10.6	7.0



UTIMCO Returns and Alpha

As of June 30, 2022





Endowment Returns and Alpha

Through June 30, 2022

		1-Year		3-Year		Asset Allocation		
		Return	Alpha	Return	Alpha	\$ Invested	% of Fund	Over / (Under)
Global Equity	Public Equity	(23.9%)	(6.9%)	5.1%	(0.3%)	13,954	26.6%	(0.3%)
	Directional Hedge Funds	(6.3%)	(0.6%)	6.1%	2.2%	3,424	6.5%	(0.4%)
	Total Private Equity	20.0%	8.2%	26.5%	4.4%	14,871	28.3%	0.7%
	Total Global Equity	(5.5%)	(1.3%)	13.3%	1.6%	32,248	61.4%	0.0%
Stable Value	Investment Grade Fixed Income	(9.1%)	(0.2%)	(0.0%)	1.1%	2,097	4.0%	(0.3%)
	Long Treasuries					579	1.1%	(0.5%)
	Cash	0.2%	0.0%	0.6%	(0.1%)	822	1.6%	0.6%
	Stable Value Hedge Funds	9.8%	9.7%	8.9%	4.6%	5,345	10.2%	0.9%
	Total Stable Value	0.1%	4.5%	3.4%	1.6%	8,833	16.8%	0.7%
Real Return	Inflation Linked Bonds	(4.5%)	0.6%			1,002	1.9%	(0.0%)
	Natural Resources	22.1%	(11.4%)	5.0%	0.5%	2,727	5.2%	0.1%
	Infrastructure	13.6%	(2.5%)	24.3%	12.9%	1,517	2.9%	(0.0%)
	Real Estate	23.0%	(1.4%)	11.8%	0.5%	4,176	7.9%	0.2%
	Total Real Return	17.9%	(5.6%)	10.6%	2.2%	9,422	17.9%	0.2%
Strategic Partnerships	Total Strategic Partnerships	(16.9%)	1.0%		0.0%	2,049	3.9%	(0.9%)
TAA	TAA	0.1%	0.1%	0.1%	0.1%	(7)		
Total Fund	Endowment Total	(1.4%)	(0.6%)	10.9%	1.8%	52,544	100.0%	0.0%



ITF Returns and Alpha Detail

Through June 30, 2022

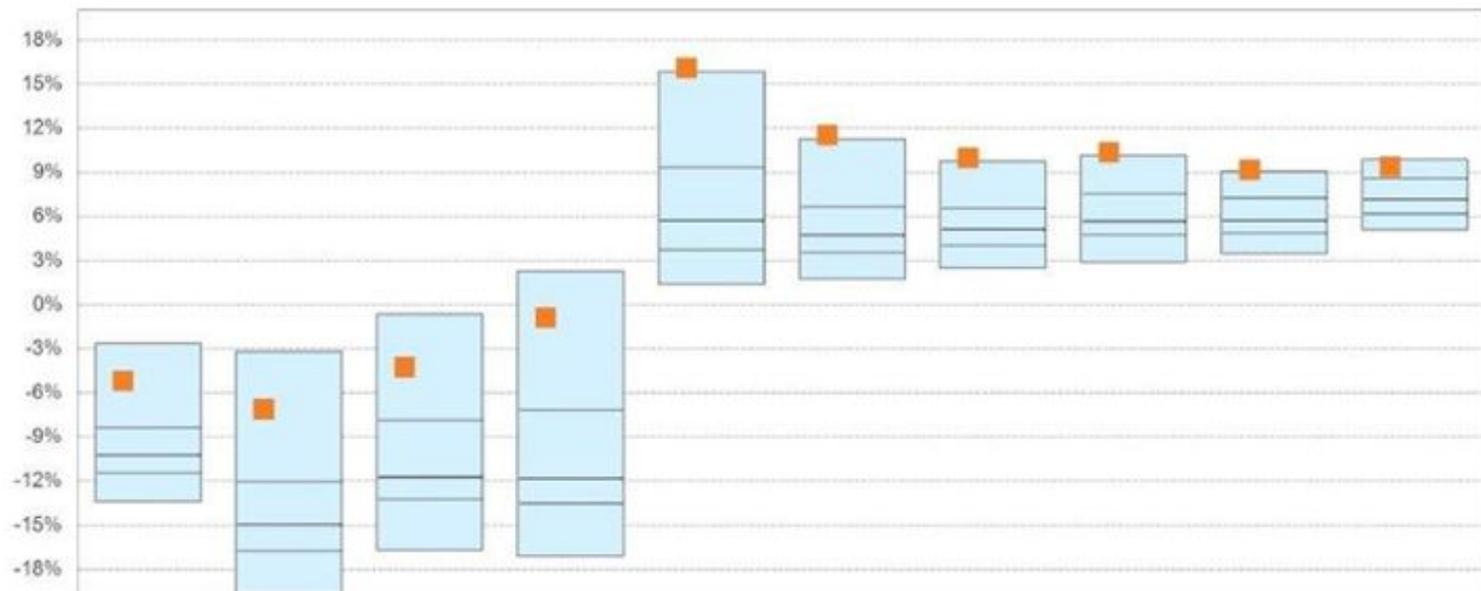
		1-Year		3-Year		Asset Allocation		
		Return	Alpha	Return	Alpha	\$ Invested	% of Fund	Over / (Under)
Global Equity	Public Equity	(24.5%)	(6.9%)	4.5%	(0.6%)	1,174	13.4%	(0.5%)
	Directional Hedge Funds	(6.3%)	(0.7%)	6.1%	2.2%	3,570	40.6%	1.7%
	Total Global Equity	(11.0%)	(2.2%)	5.8%	1.6%	4,744	54.0%	1.3%
Stable Value	Investment Grade Fixed Income	(9.2%)	(0.3%)	(0.1%)	1.1%	1,743	19.8%	0.6%
	Long Treasuries					280	3.2%	(0.1%)
	Cash	0.2%	0.0%	0.6%	(0.1%)	0	0.0%	(2.0%)
	Stable Value Hedge Funds	9.6%	9.5%	9.0%	4.7%	1,323	15.0%	0.5%
	Total Stable Value	(4.9%)	1.9%	1.5%	1.7%	3,345	38.0%	(1.0%)
Real Return	Inflation Linked Bonds					334	3.8%	(0.4%)
	Commodities					197	2.2%	0.2%
	Real Estate					176	2.0%	(0.1%)
	Total Real Return					708	8.0%	(0.3%)
Total Fund	ITF Total	(8.3%)	(0.6%)	3.9%	1.5%	8,797	100.0%	0.0%



Q2 TUCS

Trust Universe Comparison Service Performance Comparison

Total Returns of Master Trusts - Foundation & Endowment
Cumulative Periods Ending : June 30, 2022



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	-2.61	-3.17	-0.63	2.25	15.86	11.26	9.74	10.18	9.07	9.88
25th	-8.36	-12.03	-7.82	-7.16	9.35	6.64	6.58	7.54	7.28	8.58
50th	-10.23	-14.98	-11.73	-11.81	5.74	4.75	5.12	5.69	5.71	7.17
75th	-11.43	-16.79	-13.20	-13.50	3.75	3.52	3.99	4.73	4.85	6.21
95th	-13.41	-19.72	-16.68	-17.12	1.39	1.76	2.51	2.91	3.51	5.07

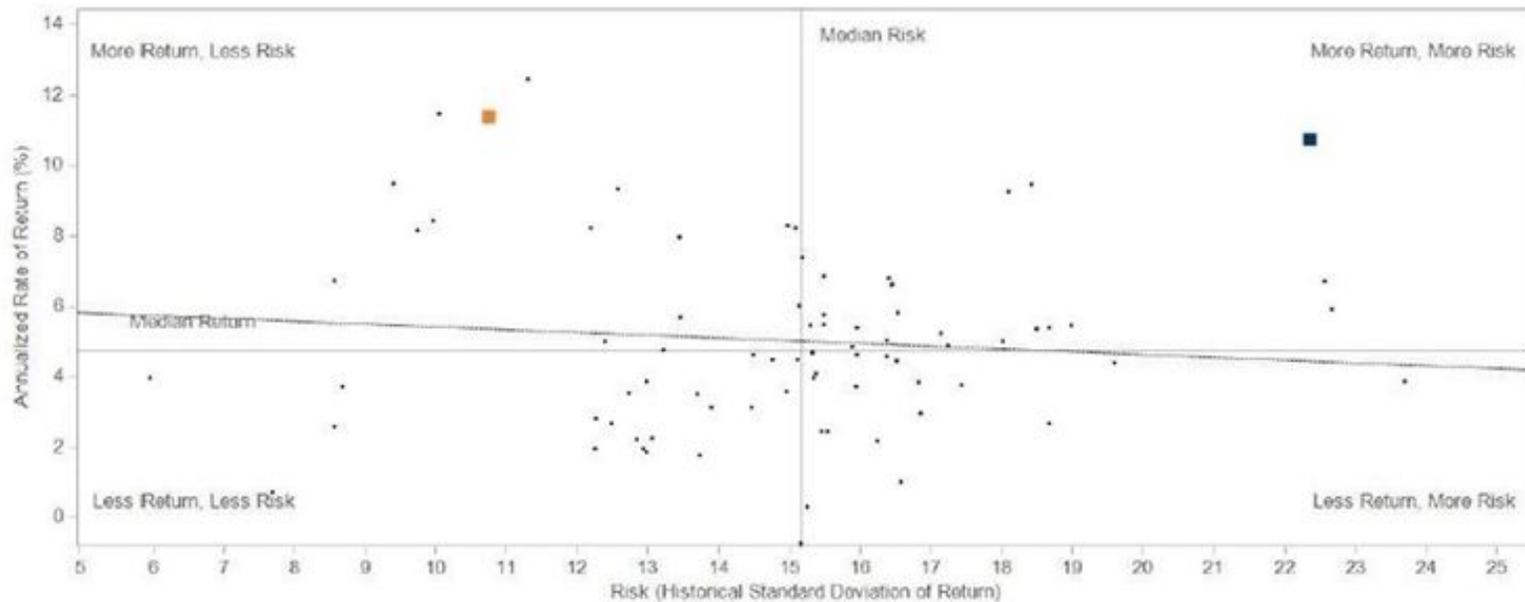
No. Of Obs	94	93	92	88	86	81	77	76	75	72
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■ PUF TOTAL FUND	-5.43 (12)	-7.38 (11)	-4.50 (15)	-1.14 (9)	15.86 (6)	11.26 (5)	9.73 (8)	10.11 (6)	8.91 (8)	9.14 (13)
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Q2 TUCS: Risk and Return

Trust Universe Comparison Service
Risk vs Total Returns of Master Trusts - Foundation & Endowment
3 Years Ending June 30, 2022



	Risk Value	Risk Rank	Return Value	Return Rank
PUF TOTAL FUND	10.82	87	11.26	5
S&P 500	22.43	3	10.60	5
Median	15.18		4.75	

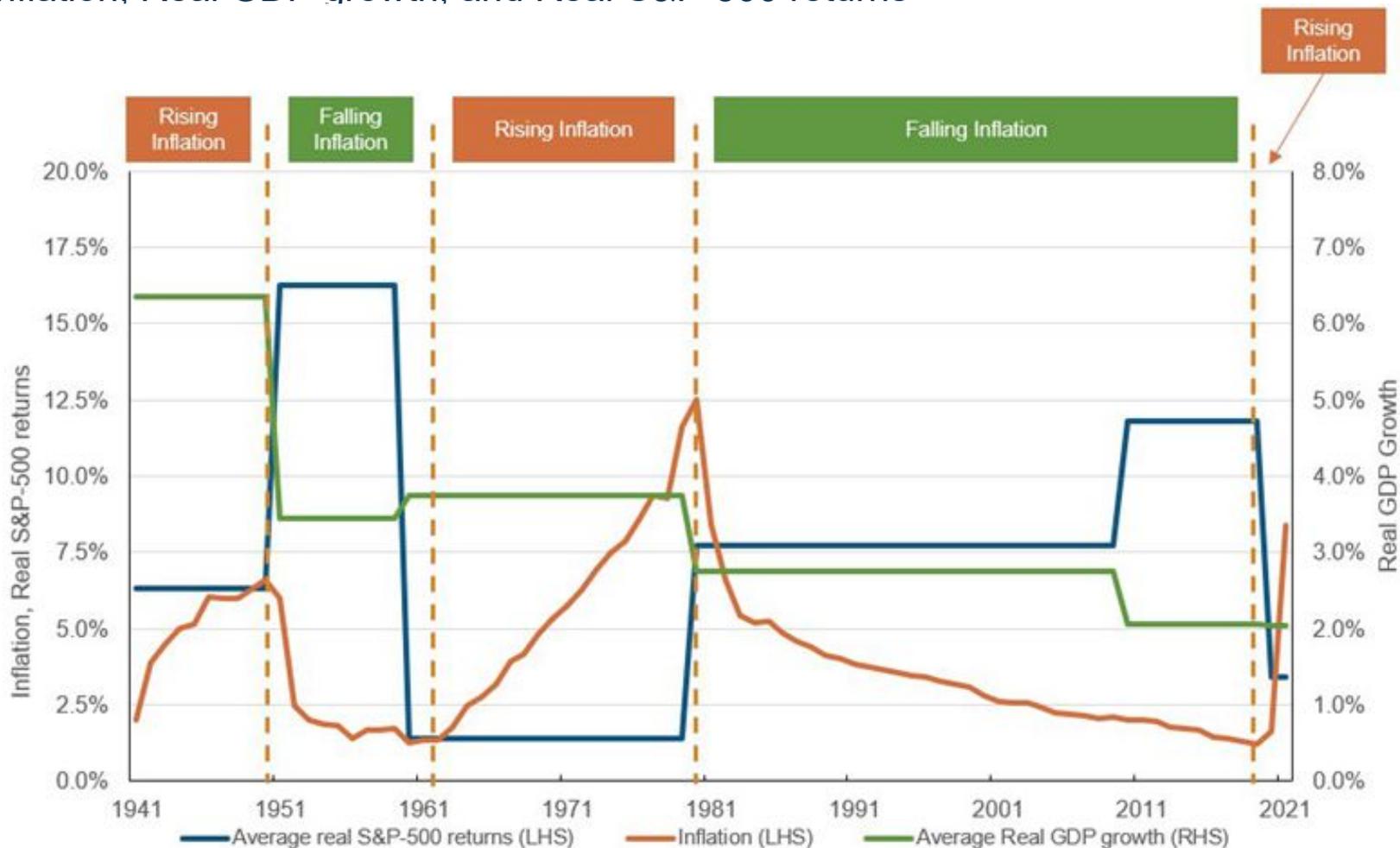
Portfolio Positioning





End of an Era

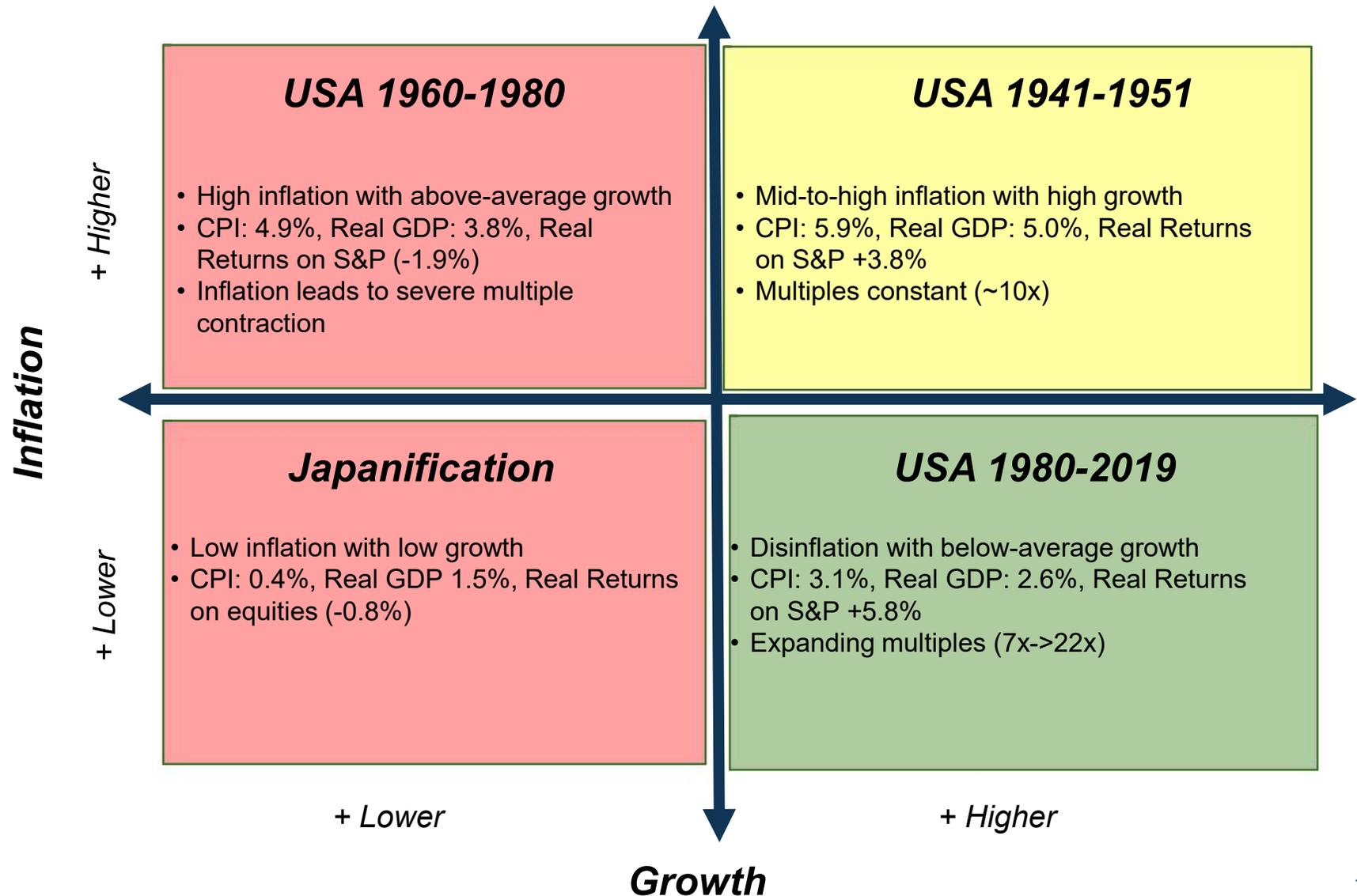
Inflation, Real GDP growth, and Real S&P-500 returns



Source: Bloomberg



Four Possible Economic Regimes



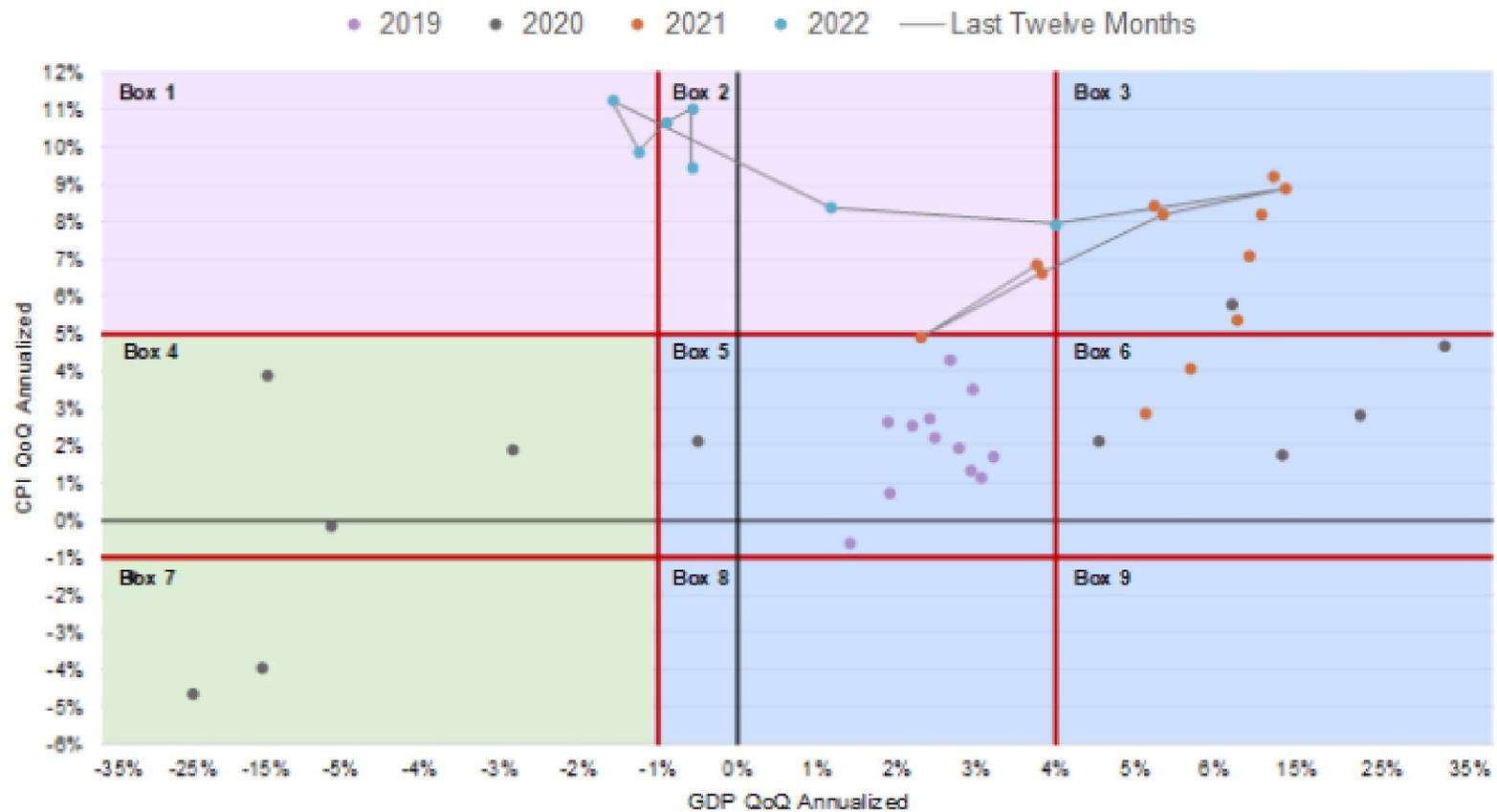
*Real S&P Price Returns



Economic Regimes

Through July 31, 2022

US POLICY SIGNAL CHART

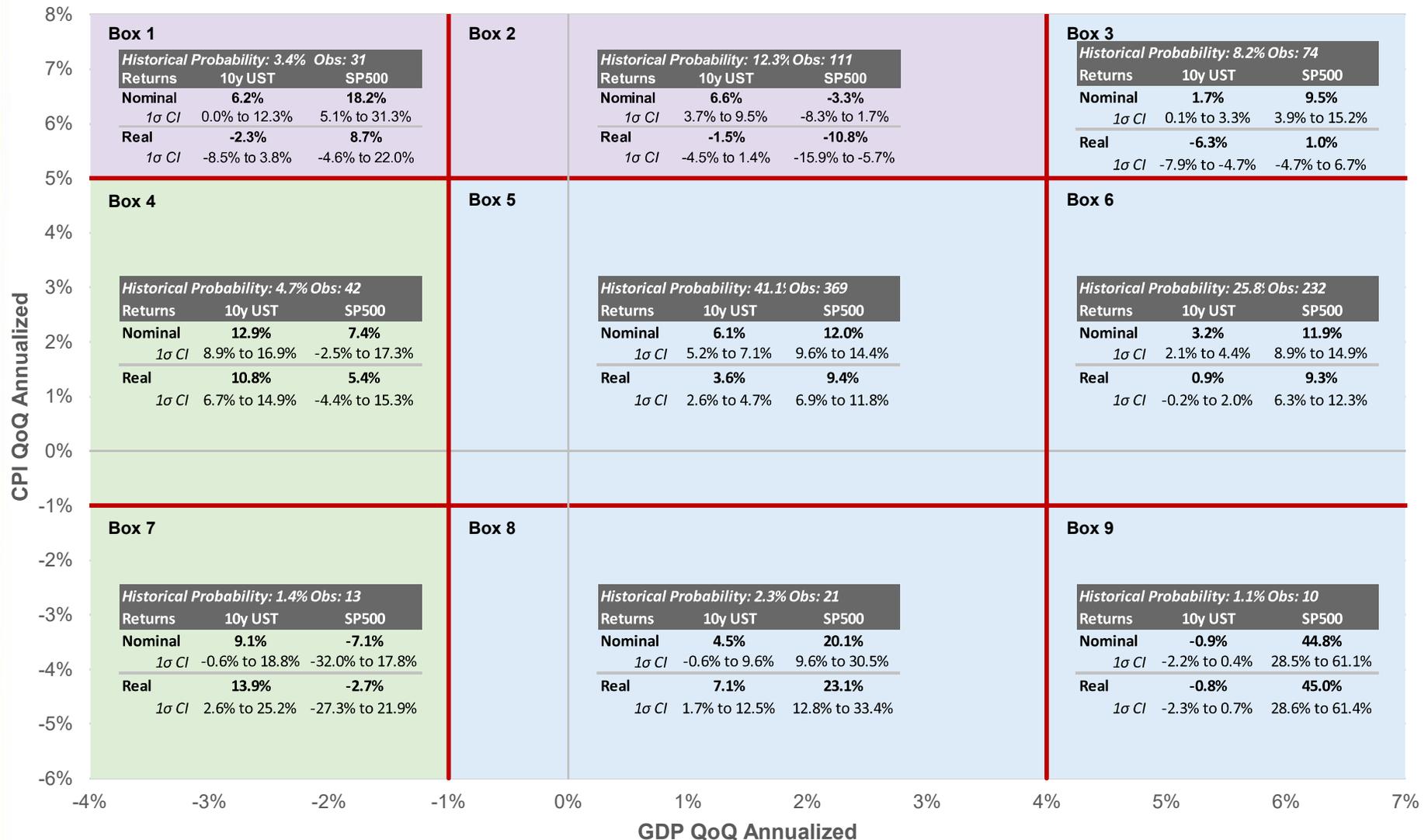


Source: Bloomberg



Regime Returns and Confidence Intervals

June 1947 to July 2022





SPN and TAA Endowment Impact

Active Positioning as of August 16, 2022 (\$m)

SPN Active Positioning (\$m)

Asset Class	JPM	BLK	Total SPN	Current TAA ¹	Total UTIMCO Active Allocation ²	vs. July IRC	
						Total UTIMCO Active Allocation ²	Change
US Public Equity	(16.1)		(16.1)	(62.6)	(78.6)	(70.7)	(-8.0)
Large	10.9		10.9	(18.2)	(7.3)	(7.0)	(-0.3)
Small/Mid Cap	(26.9)		(26.9)	(44.4)	(71.3)	(63.6)	(-7.7)
US REITs							
Non-US Developed Public Equity	(39.7)	51.2	11.4	5.3	16.7	44.0	(-27.3)
Broad EAFE	21.5		21.5	37.5	59.0	56.1	+2.9
Canada eq	(1.8)		(1.8)	(26.1)	(27.9)	(37.5)	+9.6
Europe ex-UK	(51.1)		(51.1)	(88.5)	(139.7)	(140.6)	+1.0
UK eq	(0.5)		(0.5)		(0.5)	(1.8)	+1.3
Japanese	(4.7)	51.2	46.5	71.2	117.7	150.2	(-32.5)
Asia ex-Japan	(3.0)		(3.0)	11.2	8.1	8.2	(-0.1)
Italy Eq							
Spain							
Emerging Markets Public Equity	(9.3)		(9.3)	(15.2)	(24.6)	(12.5)	(-12.1)
TOTAL EQUITY	(65.2)	51.2	(14.0)	(72.5)	(86.5)	(39.1)	(-47.4)
Global Fixed Income							
US Treasuries	28.4	(161.3)	(132.8)	94.2	(38.6)	(120.3)	+81.7
IG							
Crossover Credit							
HY	0.4		0.4		0.4	0.4	+0.0
Germany	(63.8)	(115.6)	(179.4)	(291.4)	(470.8)	(460.2)	(-10.5)
Japan	(72.9)	(97.2)	(170.1)	(344.7)	(514.8)	(544.0)	+29.2
UK							
Italy						(75.7)	+75.7
TOTAL FIXED INCOME	(107.8)	(374.0)	(481.9)	(541.9)	(1023.7)	(1199.8)	+176.1
CASH	173.0	322.9	495.8		495.8	546.7	(-50.8)

1 Endowments only. TAA is currently 1/3 of the full size. At full size, TAA would be \$-218m UW Total Equity and \$-188m US Equity.

2 SPN + TAA

Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item: Risk Management Presentation

Developed By: Risk Management Team

Presented By: Yoeli, Jones

Type of Item: Information Item

Description: Uzi Yoeli will discuss key projects and initiatives of Risk Management at UTIMCO, including stress testing of both PUF distributions and overall liquidity in extreme and elongated market declines. Tim Jones will discuss the deployment of the new MSCI Barra risk system.

Reference: *Risk Management* presentation



Risk Management Presentation

Uzi Yoeli, Managing Director
Tim Jones, Senior Director

September 15, 2022



Executive Summary

Philosophy

- To be a collaborative partner who guides data driven discussions of risks and recommends appropriate responses

Key Responsibilities

- Setting long-term targets – lead SAA reviews and recommendations
- Develop state of the art monitoring tools – MSCI Barra Risk system, ensure compliance with Policy guidelines, Bear and Bubble monitors, Economic Environment monitor
- Manage to target exposures – capital planning and rebalancing
- Allocate risk based on the opportunity set, and monitor use and level of risk deployed

Key Accomplishments Over the Past Year

- Implementation of the MSCI Barra Risk System as a unified risk system for all asset classes, giving UTIMCO a common risk language across investment teams and portfolios
- Market declines of 2022 addressed within existing frameworks
- Internal Risk Committee has matured into a key element of how UTIMCO conducts its business



Topics

Distributions

- PUF distributions grow at CPI+2.65%, acknowledging that needs rise fast when inflation is high
- “Margin of safety” built over past several years, plus record inflows from University Lands, give us confidence these distributions can be maintained

The 2022 Bear Market

- What our indicators have been telling us
- Prior Preparation Prevents Poor Performance
- Rebalance working very smoothly and effectively – no need for heroic saves because we have planned, rehearsed, and have been in battle together
 - Added \$1.6bn to Public Markets in the past six months – a result of both the rebalance to neutral as markets declined, and to invest the record inflows from University Lands

Liquidity

- Liquidity planning for overlay programs – great team collaboration and a solid and robust contingency plan for liquidity in major market declines

Key Accomplishments – Implementation of the MSCI Barra Risk System across all of UTIMCO



Risk Team Members and Purpose

Team Members



Uzi Yoeli
Managing Director

17 years at UTIMCO
PhD, UT Austin



AliEmme Binns
Analyst

2 years at UTIMCO
MSF, Univ of Utah



Tim Jones
Senior Director

4 years at UTIMCO
PhD, UT Austin



Jenna Hudson
**Investment Team
Coordinator**

2 years at UTIMCO
BA, UT Austin

Team Purpose

Lead UTIMCO in maintaining a sound risk culture, by providing services and information in the following areas:

SAA/ Long Term Issues

- Lead Strategic Asset Allocation reviews and recommendations

Models

- Bear and Bubble Monitor
- Economic Environment
- CUSUMs

Managing to Target Exposures

- Capital Planning
- Rebalancing

Risk Results

- Risk Summary
- Risk Dashboard

Internal Risk Committee

- Discussion on beta exposures and other risk-related topics

Barra

- Common Risk Language
- Best in class risk modeling of Private Markets and Hedge Funds

Risk Budgeting

- Allocate Risk (tracking error, drawdown) based on opportunity set

Individual Deals

- Provide an early independent review
- Rate risk level & concerns

Distribution Policy in Inflationary Times





PUF Distributions in Times of High Inflation

- PUF distribution policy set by Board of Regents to increase annually at $\text{CPI} + 2.65\%$, as long as that rate is between 3.5% and 6.0% of the NAV of the PUF, measured as the average of the preceding 20 quarters
 - This recognizes that the needs of the institution rise when prices rise, regardless of how well the equity markets or the Endowment are performing
- High inflation could be a major risk to this policy
 - Distributions will increase quickly when CPI is high for a prolonged period
 - Historically, inflation tends to be a headwind for equity returns
- Stress testing this policy shows it can be maintained until at least FY2032 under very conservative assumptions
 - Strong performance in recent years has generated a margin of safety
 - Record inflows from University Lands – these are expected to remain relatively high if inflation remains high



Stress Test Assumptions

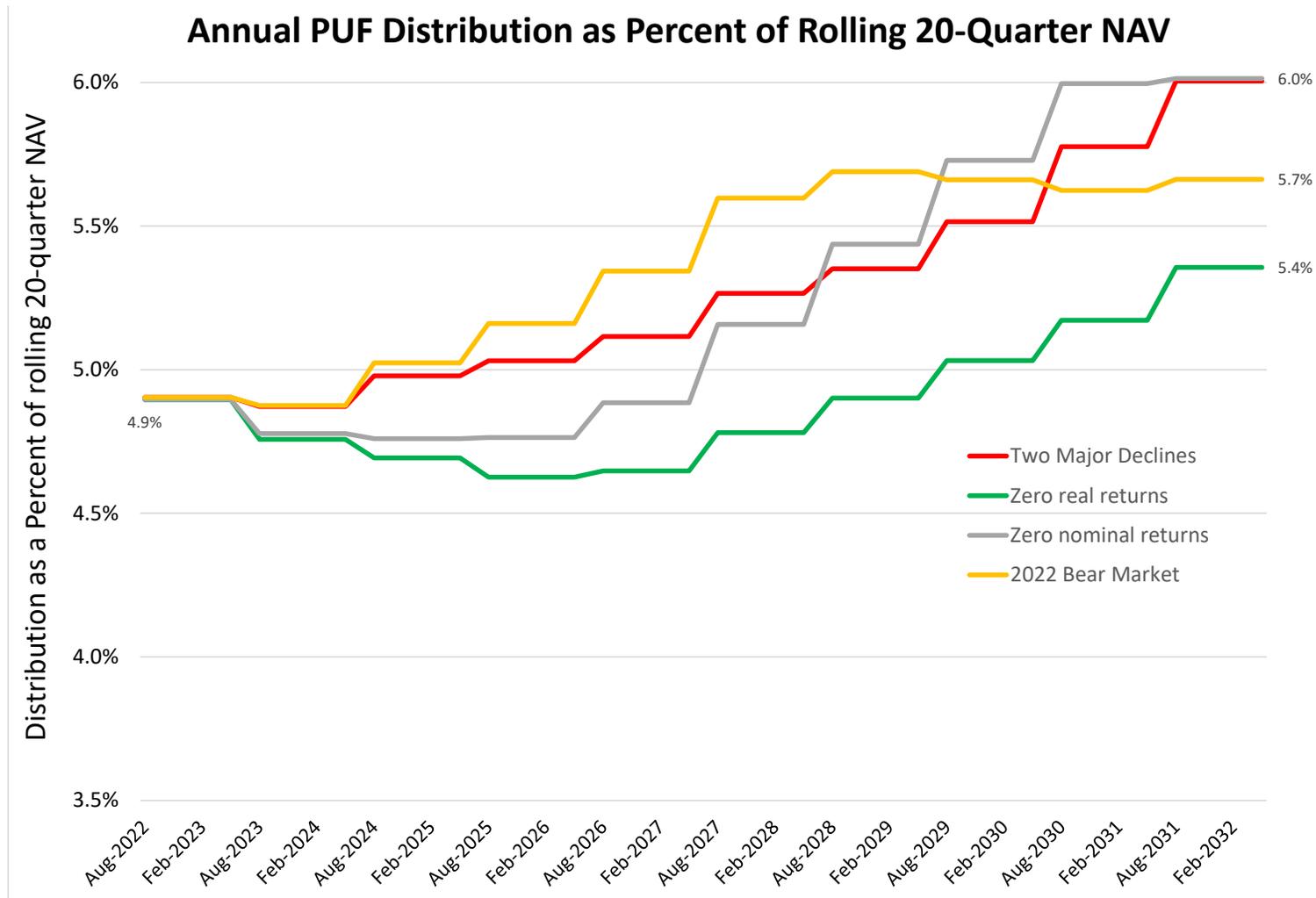
Inflation assumptions, and resulting distribution amounts required:

	Inflation implied by break-evens	Inflation we model	Projected distribution amount
FY2023	4.5%	5.9%	\$1.23bn
FY2024	3.4%	5.2%	\$1.32bn
FY2025	2.8%	5.0%	\$1.43bn
FY2026	2.5%	5.0%	\$1.54bn
FY2027	2.4%	4.3%	\$1.66bn
FY2028	2.3%	3.3%	\$1.79bn
FY2029+	2.3%	3.0%	\$1.91bn
FY2032	2.3%	3.0%	\$2.27bn

- University Lands revenues assumed to decline by 10% each year in real terms
- We tested four scenarios for equity returns for the next 10 years:
 1. Equity returns in the next 10 years are 0% in real terms (no equity risk premium)
 2. Equity returns are 0% in nominal terms for the entire decade (negative real returns)
 3. A market decline to S&P-500 of 45% from its peak (i.e., another 35% from here to roughly 2,700), followed by three years of recovery and then real returns of 3%
 4. Two equity bear markets six years apart (a la the 2000s)



Results of the Analysis



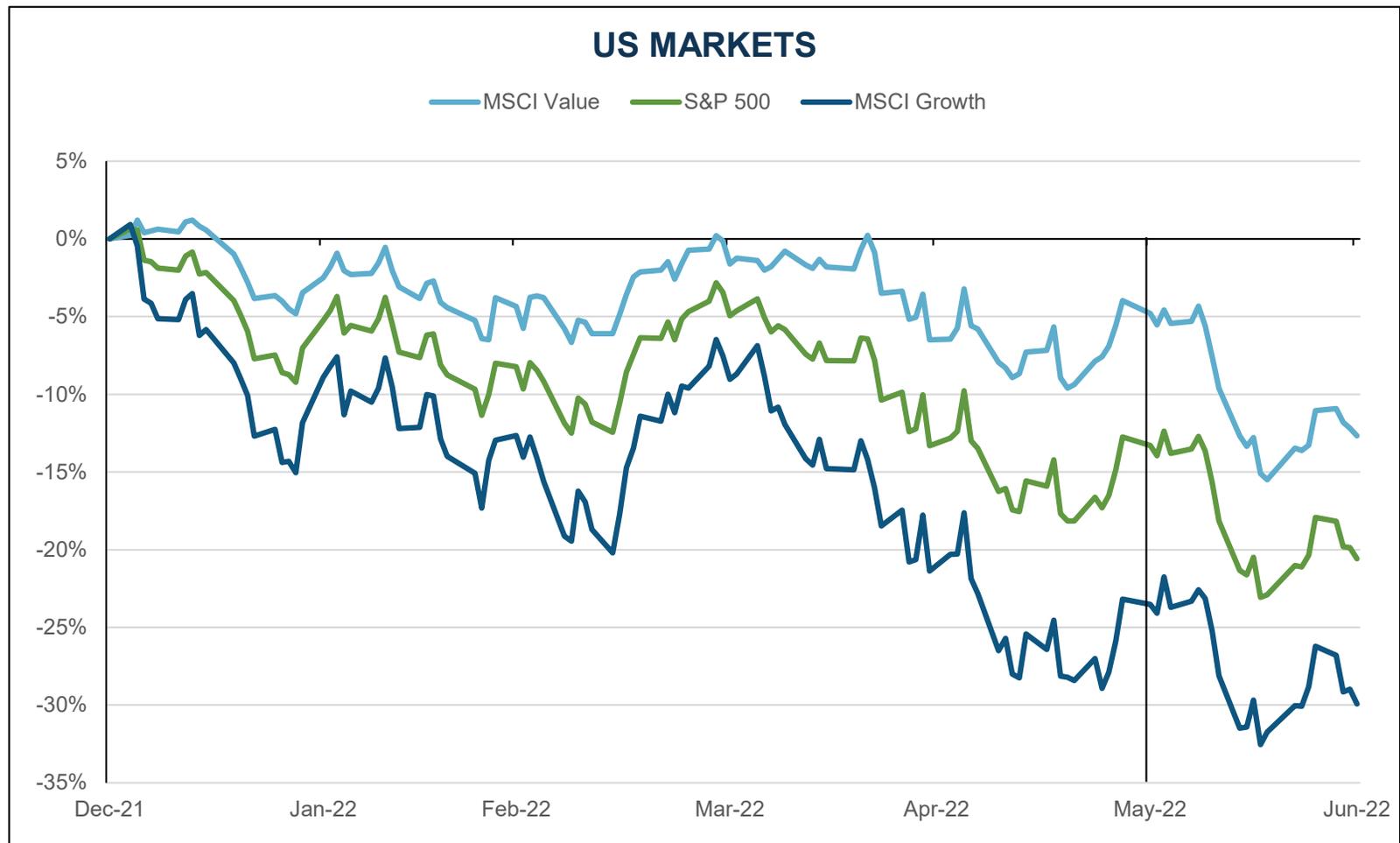
- With zero nominal returns for a full decade while having high inflation, the 6.0% upper limit boundary will become binding in FY2032; all other cases will allow an increase of CPI+2.65% for all ten years
- The “two major declines” case reaches, but does not breach, the 6.0% limit

The 2022 Bear Market



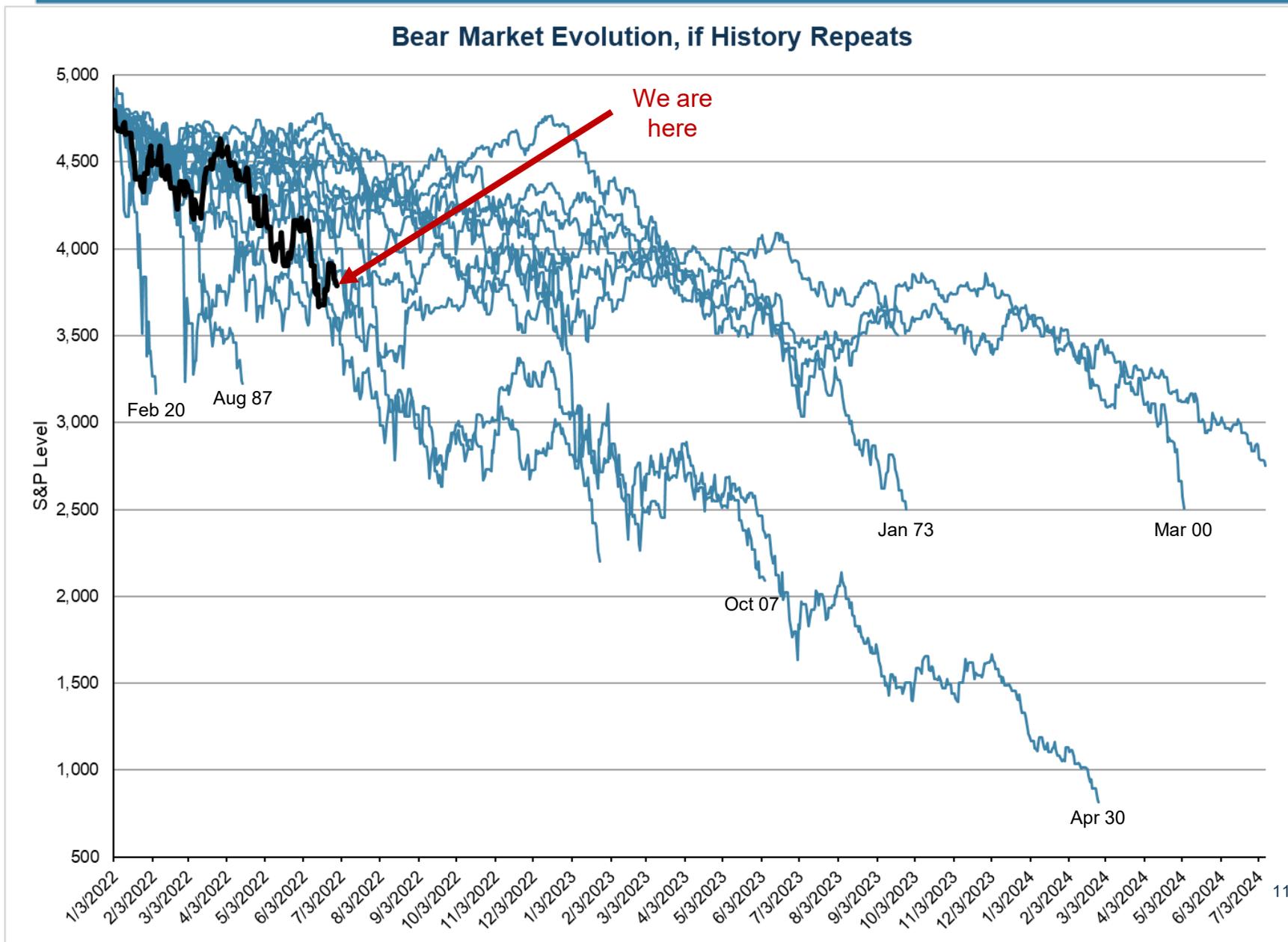


Market Action in First Half of 2022





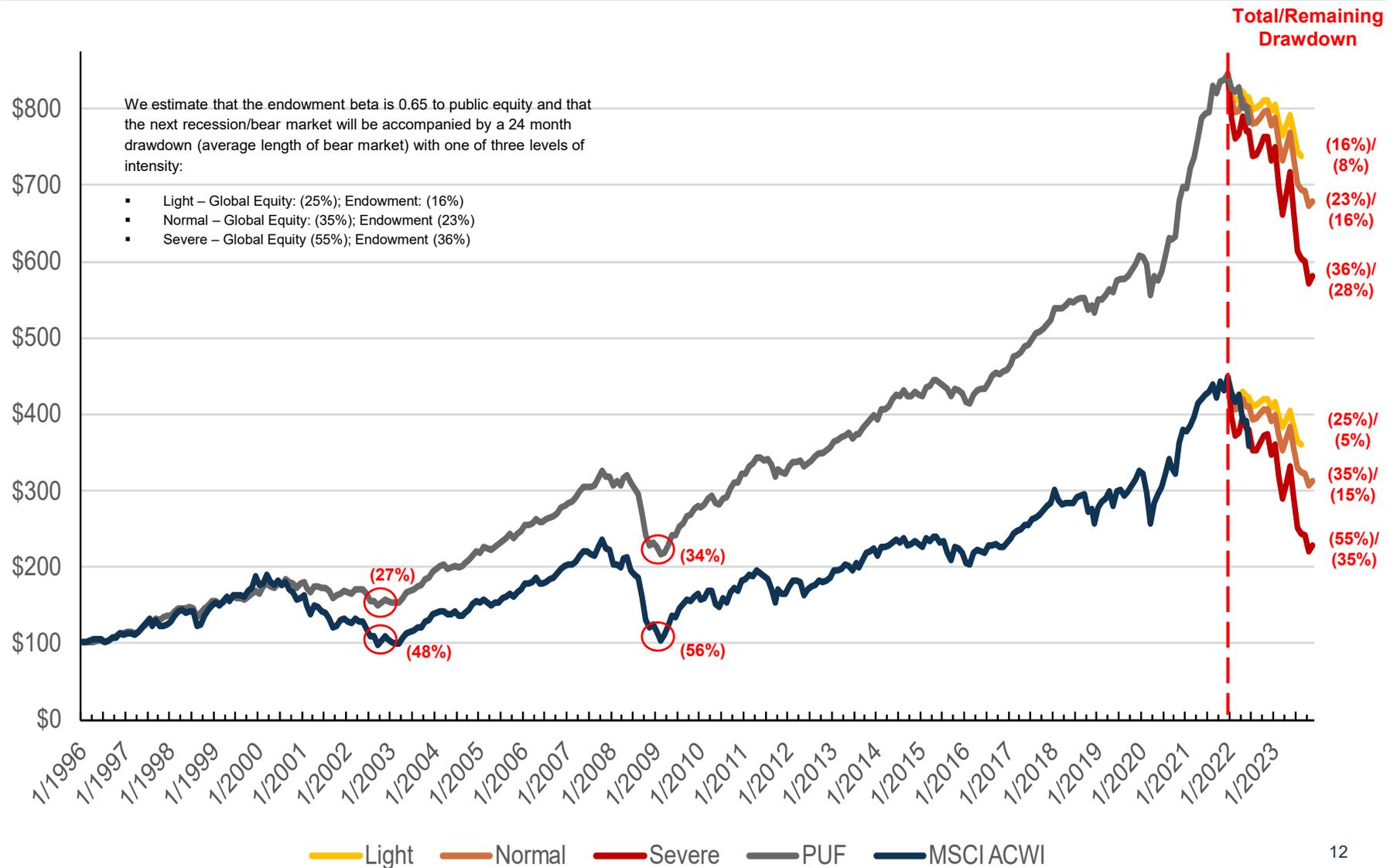
How Do Bear Markets Evolve?





Bear Market Perspectives

Historical and Projected PUF Drawdowns June 2022

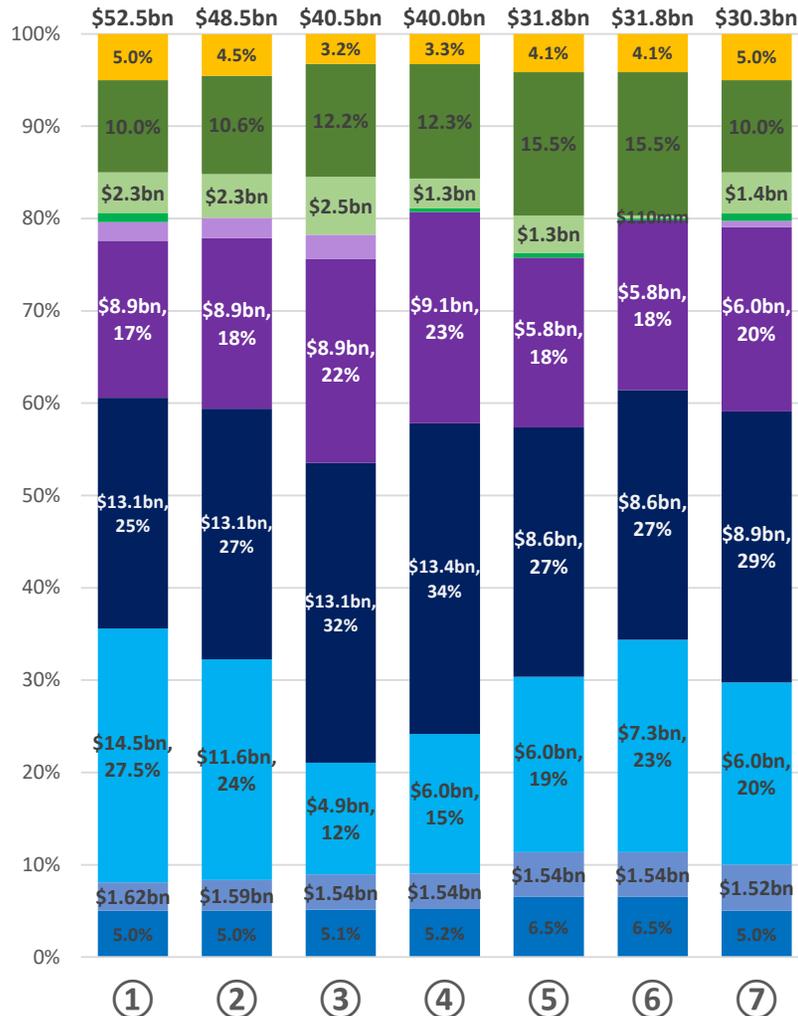


Updated Liquidity Plan

Updated liquidity plan addresses the needs of the Overlay program and Full-size TAA



Liquidity Plan for a Rapid 60% Market Decline as well as a 20% Single-Day Decline



1. **Start** with a \$52.5bn Endowment at LTSAA weights
2. **A One-day 20% market decline** could require up to \$550mm in margin posting for overlay and full-size TAA
3. **Rapid market decline by 60%**, resulting in \$12bn loss: \$9.5bn in Public Markets, \$1.25bn in SPN, \$0.75bn in HF and \$0.75bn in TAA
4. **Rebalance using only "first responders"**, and adhering to the floating weights in Policy:
 - Assume \$500mm of capital calls
 - Make \$500mm quarterly distributions
 - Buy \$1.2bn of Public Equities
 - **Sources:** \$1.2bn from Treasuries and all \$1.0bn of TIPS
5. **Privates are marked down (typically with a delay)**, showing another ~\$8.2bn of loss
6. **Rebalance again using only "first responders"**, and adhering to the floating weights in Policy:
 - Buy another \$1.3bn of Public Equities
 - Sources: most of remaining Treasuries and Cash
7. **Rebalance using Hedge Funds** (takes 3-6 months) and continue making the annual distribution:
 - Redeem \$2.5bn from Hedge Funds
 - Re-establish positions in Treasuries, TIPS, and Cash at Policy levels
 - Make another \$1.5bn of distributions as needed, mostly by selling equities

■ HF Directional ■ Public Equity Overlay ■ Public Equity ex overlay ■ Private Investments ■ Infra, NR, RE ■ TIPS ■ Cash ■ Long Treasuries ■ HF Stable Value ■ Strategic Partners

Bottom Line: Overlay required careful planning for a large (20%) single-day decline; on the other hand, the Overlay makes it easier to manage a slow and shallow decline (less SVHF redemptions required)

Key Accomplishments





MSCI Barra Risk Project: Goals and Progress

Most of the Marathon has been run...

Goals for the project:

1. Create a common risk language across the entire firm
2. Provide best in class private markets risk modeling
3. Deliver a unified factor model



Successes from the past year:

1. Successfully onboarded every investment team on schedule and on budget
2. Successfully trained and certified all investment teams on the MSCI Barra system
3. The System is in use by all Public teams for day-to-day management and key decisions

Last Mile of the Marathon...

Critical Milestones remaining:

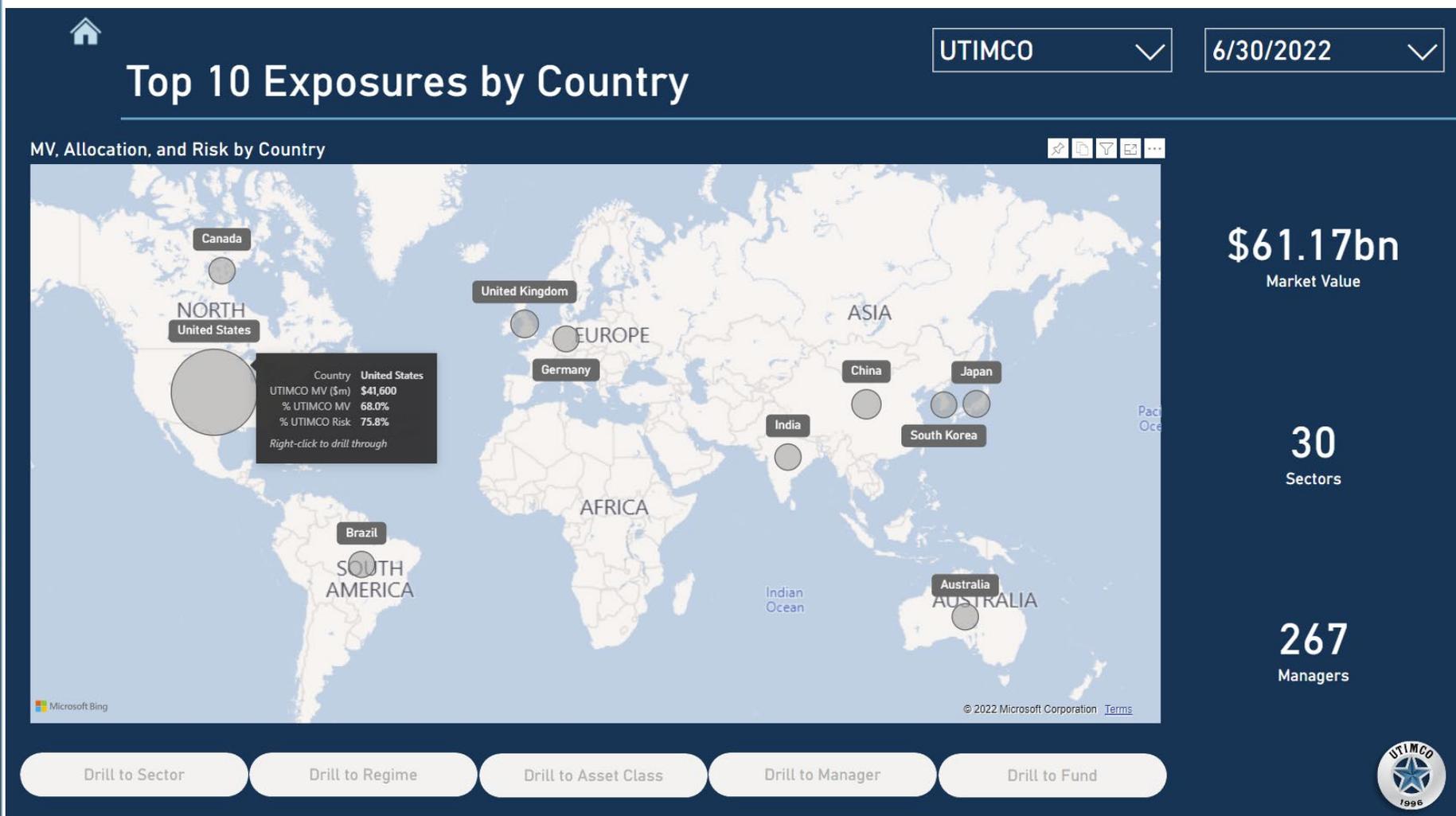
1. Complete transition from MSCI's onboarding team to their operational team
2. MSCI to get derivative terms and conditions directly from BNY Mellon
3. Fine tune Private Markets risk methodology, get buy-in from all stakeholders





Endowments + ITF by Country

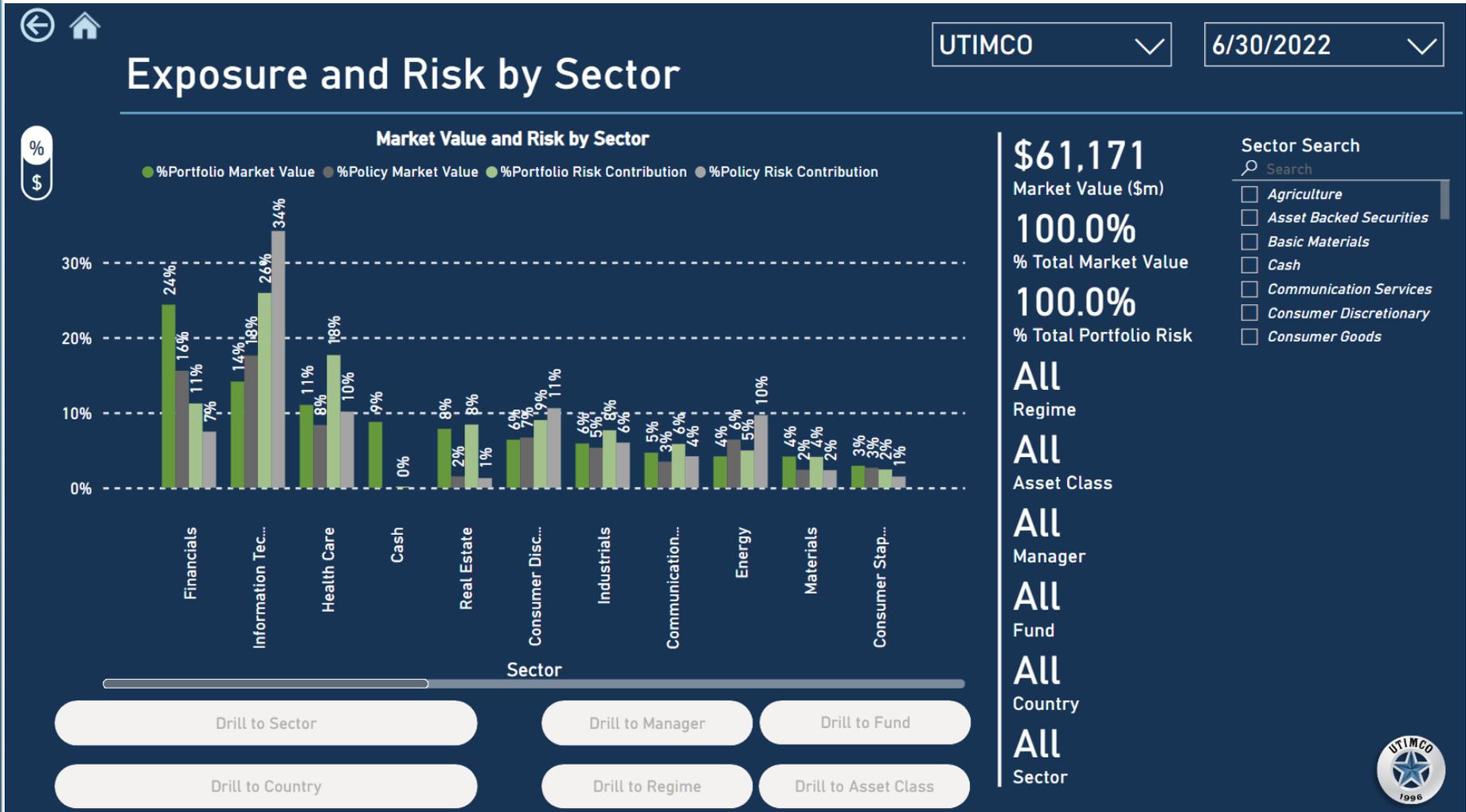
Advanced Beta Version





Endowments + ITF by Sector

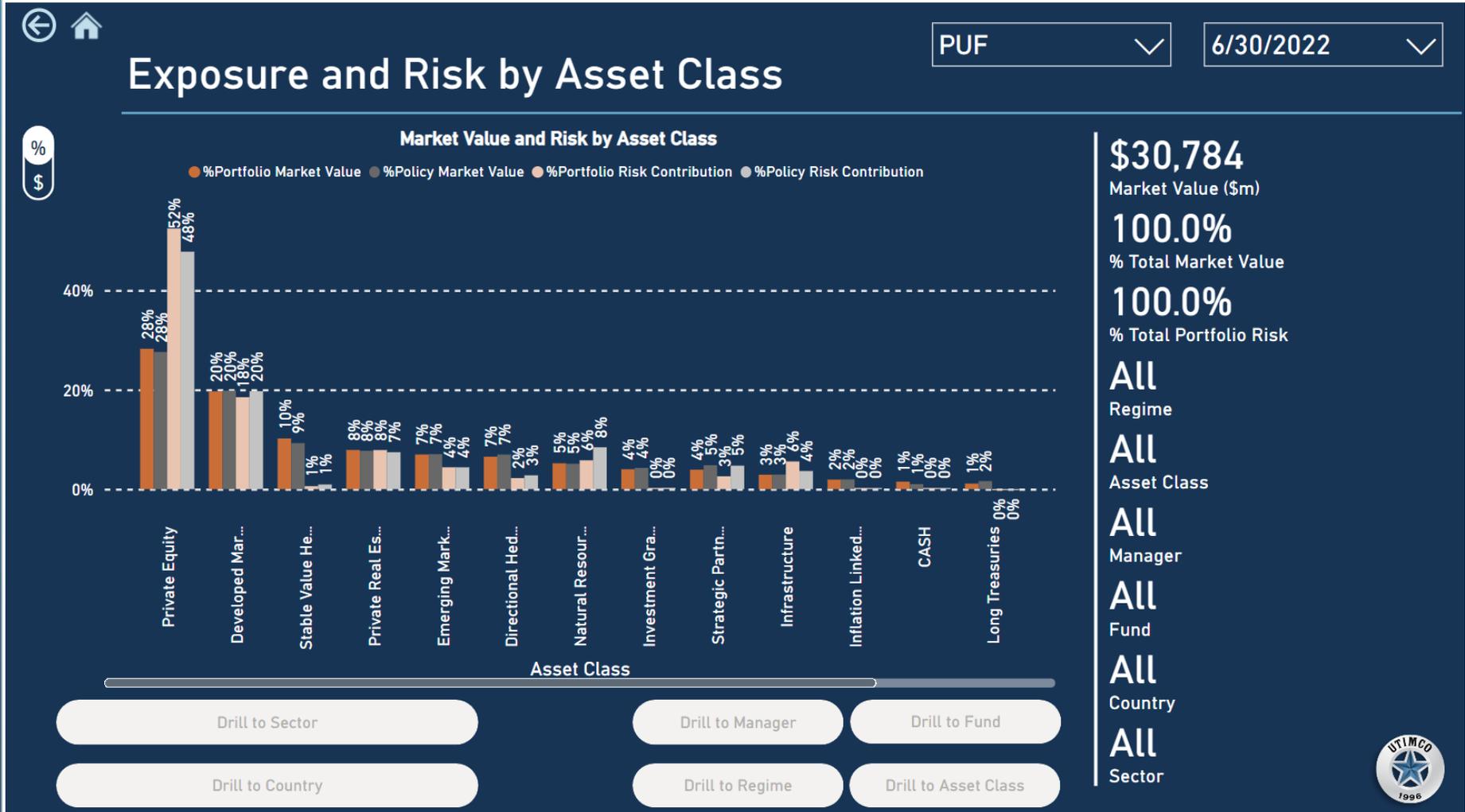
Advanced Beta Version





PUF – Exposure and Risk by Asset Class

Advanced Beta Version



Asset Class

Drill to Sector

Drill to Manager

Drill to Fund

Drill to Country

Drill to Regime

Drill to Asset Class

\$30,784
Market Value (\$m)

100.0%
% Total Market Value

100.0%
% Total Portfolio Risk

All
Regime

All
Asset Class

All
Manager

All
Fund

All
Country

All
Sector



Summary

Stress Tests show Distributions can be supported even if we enter an extended period of high inflation and muted equity returns

Successful implementation of MSCI Barra as a unified risk system for all asset classes and all levels of management

- First known implementation that enables systematic evaluation of risks across and within asset classes
- Results delivered in several different ways, making the system usable for all teams and at all levels at UTIMCO

Monitoring risks and developing contingency plans as we head into a very different economic environment

- Economic environment monitor suggests we entered an environment that tends to be bad for equities

Battle-tested liquidity management tested once again, and passed with flying colors

Appendix





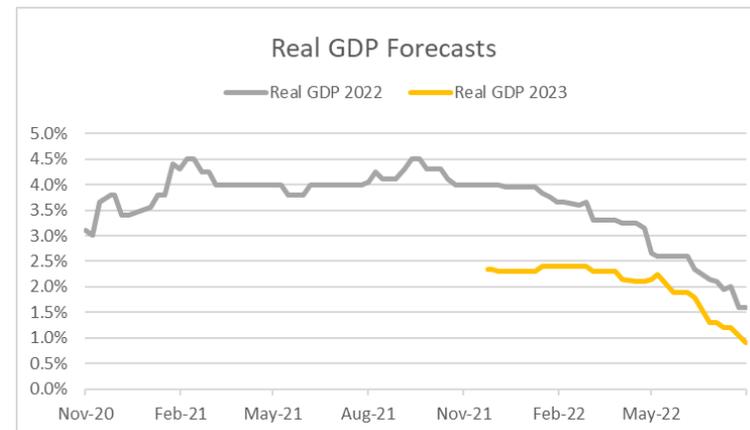
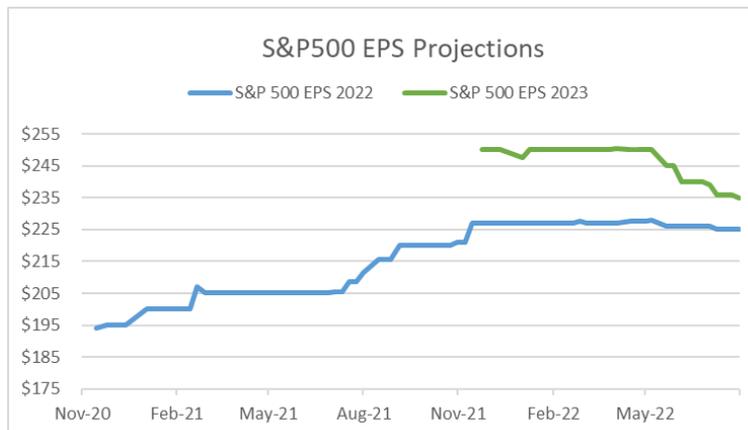
Economic Forecasts

Estimates as of 8/5/22

	Quarterly Real GDP		Real GDP		S&P 500 EPS		Unemployment		Core PCE	
	Q3	Q4	2022	2023	2022	2023	2022	2023	2022	2023
AGMR	2.5%	1.8%	0.3%	0.4%	\$228	\$194	3.7%	5.7%	4.0%	3.1%
Barclays	1.0%	1.0%	1.6%	0.6%	\$223		3.8%	4.3%	4.9%	3.0%
BofA	-0.5%	-2.0%	1.2%	-0.1%	\$218	\$200	4.2%	4.6%	4.8%	3.4%
Citi	2.4%	2.1%	1.8%	0.7%	\$226		3.4%	4.7%	4.9%	4.0%
Credit Suisse	0.8%	1.4%	1.6%	0.8%	\$235	\$255	3.5%	3.7%	4.9%	3.4%
Goldman	1.0%	1.0%	1.6%	1.1%	\$226	\$234	3.6%	3.8%	4.5%	2.6%
ISI	2%	2%	1.4%	1.0%	\$222	\$232	3.5%	4.0%	4.0%	3.0%
JP Morgan	1.0%	1.5%	1.6%	1.2%	\$225	\$240	3.8%	3.9%	4.7%	2.9%
Morgan Stanley	2.8%	2.3%	2.1%	1.6%	\$225	\$236	3.9%	4.3%	4.9%	3.8%
UBS	2.0%	2.1%	0.4%	1.3%	\$234	\$247	3.5%	3.5%	3.9%	2.1%
Yardeni	-2%	-2%	-1.9%		\$215	\$235	3.3%		5.4%	
Median	1.0%	1.5%	1.6%	0.9%	\$225	\$235	3.6%	4.2%	4.8%	3.1%
Average	1.2%	1.0%	1.1%	0.9%	\$225	\$230	3.7%	4.3%	4.6%	3.1%
FOMC			1.7%	1.7%			3.7%	3.9%	4.3%	2.7%

Prior Years

2020	2021	2020	2021	2020	2021	2020	2021
-3.4%	5.7%	\$142	\$208	6.7%	3.9%	1.5%	4.9%

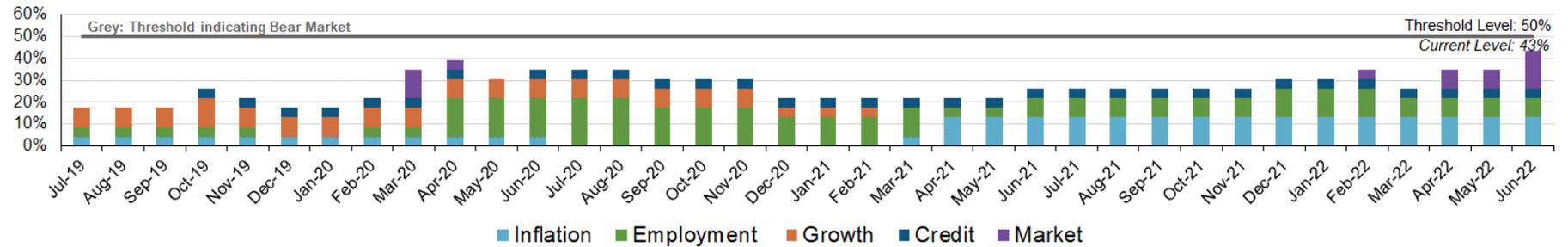




US Bear Market Indicators

June 2022

BEAR MARKET INDICATOR: JUNE 2022



Type	Indicator	On/Off	Indicator Level	Last Update	Last 36 Months	% On Last 36 Months
Inflation	5yr Breakeven Inflation < 1.25%	Off	2.6% 1.3%	6/22		11%
	10yr Breakeven Inflation > 3%	Off	2.3% 3.0%	6/22		0%
	YoY Inflation > 12m Moving Avg*	On	5.9% 5.3%	6/22		67%
	YoY CPI Energy > 20%*	On	41.5% 20.0%	6/22		42%
	YoY PCE Deflator > 3%*	On	6.8% 3.0%	6/22		42%
Employment	Employment Growth < 0%*	Off	4.2% 0.0%	5/22		33%
	YoY Avg. Hourly Earnings > 3%	On	5.1% 3.0%	6/22		89%
	YoY NonFinc Labor Costs > 3.5%*	On	8.3% 3.5%	3/22		36%
	Consumer Confidence Spread < -20%	Off	-10.8% -20.0%	6/22		11%
Growth	Unemployment 3mo MA > .33% off lows*	Off	3.6% 3.9%	6/22		64%
	Inventory/Sales > Long-term Avg.*	Off	1.30 1.36	5/22		47%
	YoY Leading Economic Indicator < 0%*	Off	1.4% 0.0%	6/22		42%
	Leading/Coincident Ratio Drawdown > 26 months*	Off	8.0 26.0	6/22		0%
	Fed Recession Probability > 25%*	Off	5.9% 25.0%	6/22		17%
	Residential Construction (% of GDP) > 5%	Off	3.8% 5.0%	5/22		0%
Total Investment (% of GDP) > 18.5%	Off	13.4% 18.5%	6/22		0%	

Type	Indicator	On/Off	Indicator Level	Last Update	Last 36 Months	% On Last 36 Months
Credit	US HY Yield > Long-term Avg.	Off	8.9% 9.6%	6/22		0%
	Non-Mortgage Delinquency Rate > 3.5%*	Off	1.6% 3.5%	3/22		0%
	Real Rates < 0%*	On	-7.0% 0.0%	6/22		89%
Market	YoY Equity Markets < -5%	On	-13.9% -5.0%	6/22		6%
	Investment Banks < 12m Moving Avg. - 1 SD	On	-10.3% 0.0%	6/22		14%
	Cons. Discretionary < 12m Moving Avg. - 1 SD	On	-15.6% 0.0%	6/22		14%
	US Dollar 24m Change > 10%	On	12.1% 10.0%	6/22		3%

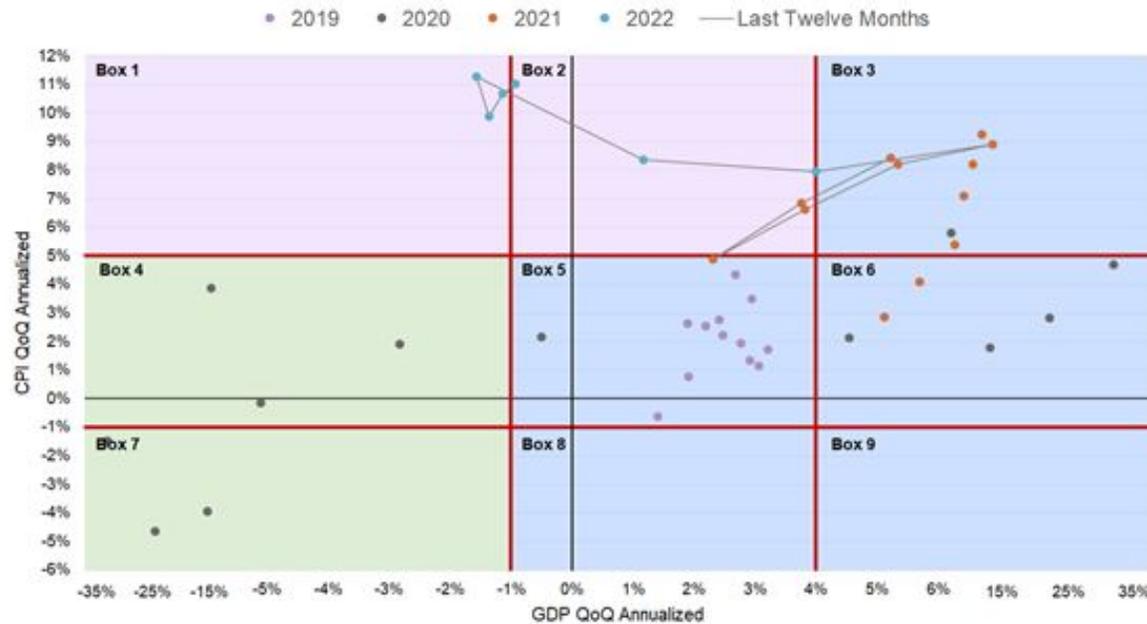
10/23 Indicators "On"



Current Economic Regime

Period Ending June 30, 2022

US POLICY SIGNAL CHART



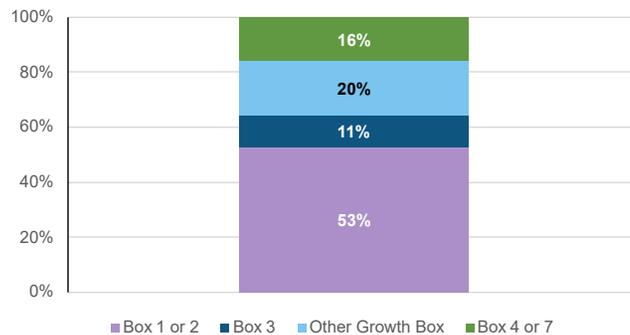
Legend:

- Green: Stable Value
- Blue: Global Equity
- Purple: Real Return

Historical Market Annualized Returns

Box #	S&P 500 Nominal	S&P 500 Real
1	17.7%	8.1%
2	-4.3%	-11.8%
3	10.6%	2.0%
4	7.4%	5.4%
5	12.0%	9.4%
6	11.8%	9.2%
7	-7.1%	-2.7%
8	20.1%	23.1%
9	44.8%	45.0%

Environmental Indicator One Year After Box 3



Global Policy Signals Summary

Quarterly Signals	6/30/2022	3/31/2022	12/31/2021
US	2	1	3
Europe	2	2	3
Japan	5	5	5
China	4	6	6

Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item: Fixed Income Presentation

Developed By: Kampfe, Doak

Presented By: Kampfe

Type of Item: Information Item

Description: Russ Kampfe will present on the Fixed Income portfolio.

Recommendation: None

Reference: *Fixed Income Review* presentation



Fixed Income Review

Russ Kampfe, Managing Director
September 15, 2022



Executive Summary

Objectives

- Provide meaningful diversification and liquidity to equity market declines during deflationary (IGFI and Long Treasuries) and inflationary (TIPS) economic regimes
- Generate 50 bps of alpha in active strategies (IGFI and Long Treasuries)

Strategies

- IGFI – Actively managed to volatility and TE versus Global Aggregate Index
- Long Treasuries – Moved from passive to active overlay management in H1 2022 versus Long Treasury Index
- TIPS – Passively managed

Liquidity

- Multi-Billion Dollar liquidity at any time
- By end of FY '23, reducing IGFI from \$3.8B to \$0.5B to bring Long Treasuries from \$0.9B to \$3.3B and SVHF's from \$6.7B to \$7.3B

Performance (IGFI)

As of 6/30/2022	1 YR	3 YR	5 YR	10 YR
Returns (ann.)	-9.2%	0.0%	1.3%	1.6%
Alpha	-0.2%	1.1%	+0.3%	+0.7%
Tracking Error	1.1%	1.8%	1.8%	1.7%
Information Ratio	-0.2	0.6	0.2	0.5

Exposure (IGFI)

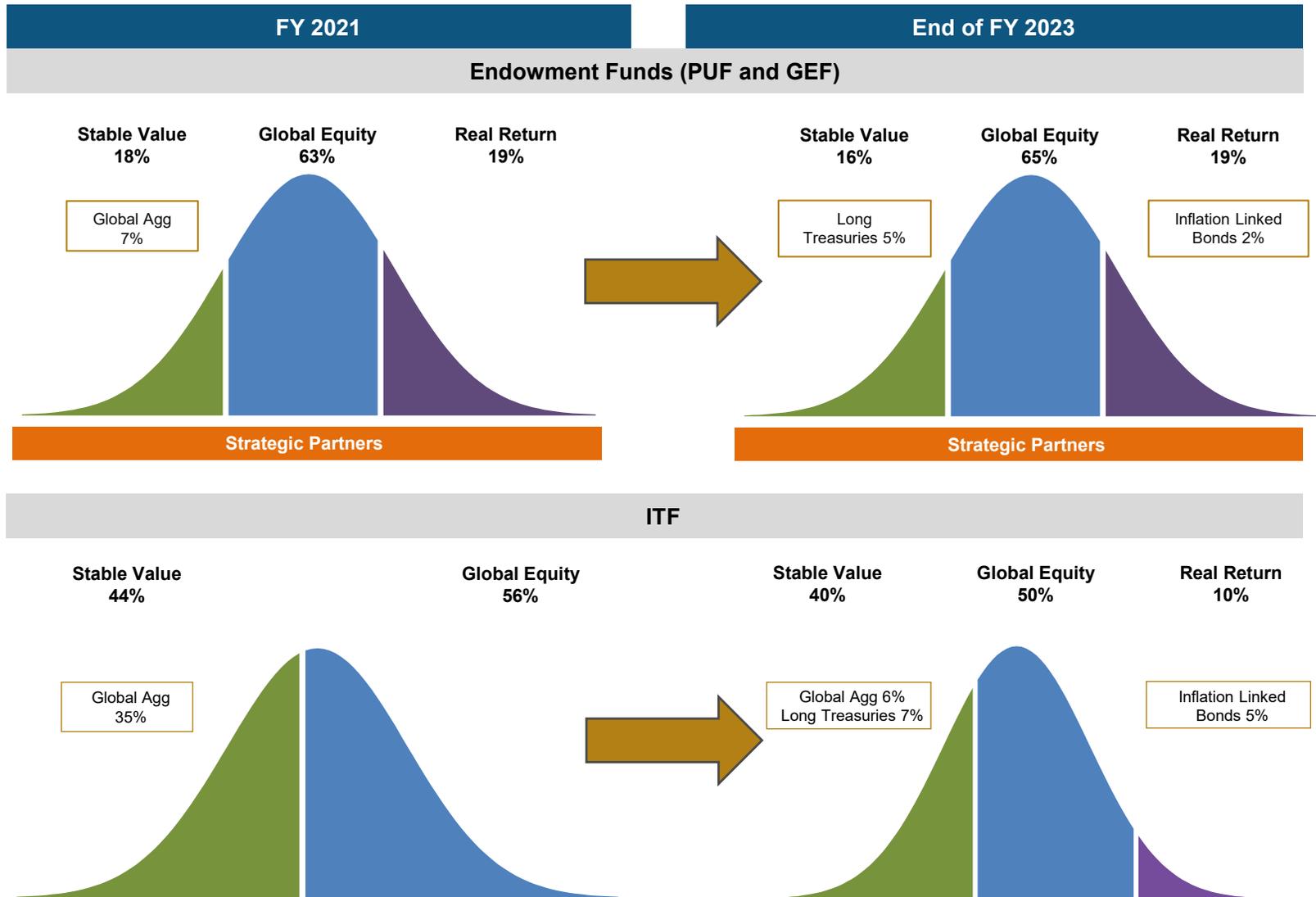
In \$millions	PUF	GEF	ITF	Total
Investment Grade Fixed Income	1,231	866	1,743	3,840
UTIMCO	30,873	21,672	8,800	61,345
% of Total Fund	4.0%	4.0%	19.8%	6.3%
2022 Policy Target	7.0%	7.0%	20.0%	6.0%

Priorities

- Implement new Strategic Asset Allocation
- Continue building out active alpha overlay Treasury portfolio
- Use MSCI Barra to independently analyze the total IGFI, Long Treasury and TIPS portfolios, as well as the external managers



New SAA Projected Roles in the Endowments





Hedge Fund/Fixed Income Team Structure

Integrated into larger HFFI Team as Fixed income is part of Stable Value regime in January 2022



Ryan Ruebsahm
Senior Managing Director
MBA, UT Austin



Tony Caruso, CFA
Managing Director
MBA, University of Chicago



Russell Kampfe
Managing Director
MBA, UT Austin



Courtney Powers
Managing Director
MBA, UT Austin



Jared Brimberry
Director
BBA, Baylor University



Harland Doak, CFA
Senior Director
MBA, St. Edward's University



Kyle Burhop, CFA
Director
BS, Virginia Tech



Jim Ricker
Associate Director
BA, Hamilton College



Melanie Cass, CFA
Associate
MBA, UT Austin



Will Haynes
Senior Analyst
MSF, UT Austin



Lori Shaver
Executive Assistant
BS, Sam Houston State



Market Performance¹

Bond Market Performance - Jun 2022

	1-Yr	3-Yr	5-Yr	7-Yr	10-Yr
Barclays Global Agg	-8.9%	-1.1%	1.2%	1.8%	2.2%
Geographic					
United States	-10.3%	-0.9%	0.9%	1.4%	1.5%
Canada	-10.9%	-2.1%	0.6%	1.1%	1.6%
Europe	-12.3%	-2.6%	0.8%	1.8%	2.9%
Asian-Pac Aggregate	-1.8%	0.1%	1.9%	2.3%	2.3%
Emerging Markets ²	-11.7%	-2.0%	0.4%	1.1%	1.3%
Sector					
Treasuries & Sovereign	-7.9%	-1.2%	1.2%	1.8%	2.2%
Government Related	-7.4%	-1.0%	1.3%	1.8%	2.2%
Corporates	-12.9%	-1.1%	1.3%	2.3%	2.9%
Securitized	-8.8%	-1.4%	0.5%	1.0%	1.5%
Tenor					
1-3 Years	-2.5%	0.4%	1.3%	1.3%	1.3%
5-7 Years	-7.9%	-0.7%	1.2%	1.6%	2.1%
10+ Years	-16.9%	-3.4%	1.0%	2.7%	3.6%
Risk Premia					
Credit	-5.0%	0.1%	0.1%	0.5%	0.7%
Duration	-14.4%	-3.8%	-0.3%	1.4%	2.3%
Inflation Linked					
US TIPS	-5.1%	3.0%	3.2%	2.8%	1.7%

Currency Performance - Jun 2022

	1-Yr	3-Yr	5-Yr	7-Yr	10-Yr
Developed Markets					
Euro	-11.5%	-2.7%	-1.7%	-0.9%	-1.9%
Japan	-18.1%	-7.4%	-3.7%	-1.5%	-5.2%
Britain	-11.8%	-1.4%	-1.3%	-3.6%	-2.5%
Canada	-3.6%	0.6%	0.1%	-0.4%	-2.3%
Australia	-7.8%	-0.5%	-2.1%	-1.5%	-3.9%
Switzerland	-3.0%	0.8%	0.1%	-0.3%	-0.1%
Hong Kong	-1.0%	-0.1%	-0.1%	-0.2%	-0.1%
Singapore	-3.1%	-0.9%	-0.2%	-0.4%	-0.9%
Emerging Markets					
China	-3.6%	0.8%	0.2%	-1.1%	-0.5%
South Korea	-12.2%	-3.5%	-2.3%	-2.0%	-1.2%
Taiwan	-6.3%	1.4%	0.4%	0.5%	0.0%
Brazil	-5.5%	-9.9%	-8.9%	-7.3%	-9.2%
South Africa	-12.0%	-4.7%	-4.2%	-4.1%	-6.7%
India	-5.8%	-4.4%	-3.9%	-3.0%	-3.5%
Russia	34.5%	5.2%	1.4%	0.2%	-5.1%
Mexico	-0.6%	-1.4%	-2.0%	-3.5%	-4.0%
Indonesia	-2.4%	-1.8%	-2.2%	-1.6%	-4.5%

Bond returns in USD.

Returns greater than 1 year are annualized.

¹ Total returns utilize Bloomberg Barclays Global Aggregate Indices, hedged in (USD).

² EM hedged Return is for a country-constrained, more liquid version of the flagship EM Local Currency Government Index.



IGFI Characteristics, Performance Contributors and Detractors

Characteristic	Jun 2022		Jun 2021	
	UTIMCO	BC Global Agg	UTIMCO	BC Global Agg
Total Portfolio Size	\$3.8B	\$61T	\$7.8B	\$67T
Modified Duration	6.3	7.0	5.5	7.5
Yield to Maturity	3.5%	2.9%	1.8%	1.1%
Avg Agency Rating	AA3	AA3	A1	AA3

Performance

Contributors

- Tactical underweight to long-duration Treasuries
- Exposure to US TIPS
- Underweight euro, Japanese yen (H2 2021) and UK pound

Detractors

- Exposure to Russian bonds
- Exposure to IG and HY Corporate Bonds
- Exposure to non-Agency securitized bonds.
- Exposure to EM bonds and currencies (Mexico, South Korea, Colombia, South Africa, and others)

Country	Jun 2022			Jun 2021			O/U YoY Change
	UTIMCO	BC Global Agg	O/U	UTIMCO	BC Global Agg	O/U	
USA	52%	37%	+15%	39%	32%	+7%	+8%
Canada	2%	4%	-2%	2%	4%	-2%	-0%
Europe	16%	29%	-13%	16%	34%	-18%	+5%
Asian-Pac Aggregate	21%	29%	-8%	24%	28%	-4%	-4%
Emerging Markets	9%	2%	+8%	19%	2%	+17%	-9%

Currency	Jun 2022			Jun 2021			O/U YoY Change
	UTIMCO	BC Global Agg	O/U	UTIMCO	BC Global Agg	O/U	
US Dollar	99%	100%	-1%	96%	100%	-4%	+3%
Euro	-2%	0%	-2%	-4%	0%	-4%	+2%
Japanese Yen	1%	0%	+1%	-1%	0%	-1%	+2%
UK Sterling	0%	0%	-0%	1%	0%	+1%	-1%
Emerging Markets	3%	0%	+3%	8%	0%	+8%	-5%
Others	-2%	0%	-2%	-1%	0%	-1%	-1%

Sector	Jun 2022			Jun 2021			O/U YoY Change
	UTIMCO	BC Global Agg	O/U	UTIMCO	BC Global Agg	O/U	
Treasuries & Sovereign	74%	60%	+13%	61%	62%	-1%	+14%
Government Related	1%	11%	-10%	3%	12%	-9%	-1%
Corporates	17%	17%	-0%	29%	19%	+10%	-10%
Securitized	8%	12%	-3%	7%	8%	-1%	-2%
Cash & Equivalent	0%	0%	+0%	0%	0%	--	+0%

What Has Worked

- Tactical allocation to US TIPS in the IGFI portfolio by the internal portfolio.
- Weighting to higher-quality corporates.
- Underweight to US Agency mortgage-backed securities.

What Hasn't Worked

- Overweight to Russian bonds by a single manager
- The portfolio allocations to investment and non-investment grade corporate bonds, select EM bonds and currencies and peripheral European bonds and currencies.



Long Treasury Overlay Performance and Exposures

Characteristic	Jun 2022	
	UTIMCO	Long Treasury Index
Total Portfolio Size	\$859M	\$2T
Modified Duration	17.3	17.0
Yield to Maturity	3.8%	3.3%
Net Leverage	9.3%	0%

Performance

As of 6/30/2022	YTD
Returns	-21.2%
Alpha	+0.1%
Tracking Error	0.9%
Information Ratio	0.1

Country	Jun 2022		
	UTIMCO	Long Treasury Index	O/U
USA	99%	100%	-1%
Canada	0%	0%	-0%
Europe	0%	0%	-0%
Asian-Pac Aggregate	-1%	0%	-1%
Emerging Markets	2%	0%	+2%

Currency	Jun 2022		
	UTIMCO	Long Treasury Index	O/U
US Dollar	100%	100%	-0%
Euro	-1%	0%	-1%
Japanese Yen	1%	0%	+1%
UK Sterling	-1%	0%	-1%
Emerging Markets	1%	0%	+1%
Others	0%	0%	+0%

Sector	Jun 2022		
	UTIMCO	Long Treasury Index	O/U
Treasuries & Sovereign	99%	100%	-1%
Government Related	0%	0%	+0%
Corporates	1%	0%	+1%
Securitized	0%	0%	-0%
Cash & Equivalents	0%	0%	--

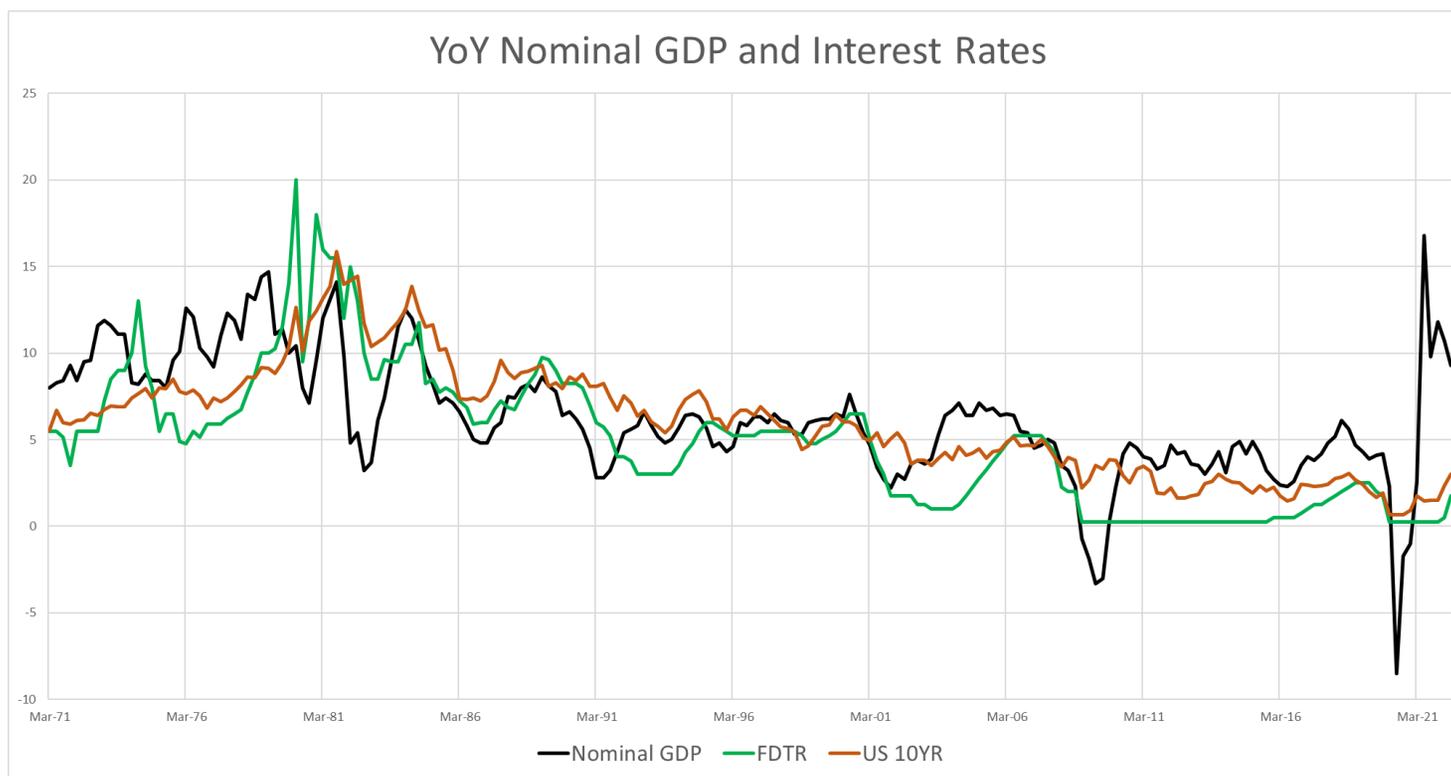


Market Conditions

Getting Ready For A Yield Curve Inversion

History suggests that the 10yr-ff yield curve needs to invert significantly (-40bp) and stay inverted for a significant amount of time (16 months) to register a recession signal. Notably, there was a false signal in 1997.

Source:Evercore ISI





Conclusion

- UTIMCO's Total Fixed Income portfolio is ~\$6 billion and represents ~10% of Total Assets across endowments and operating funds
- The portfolio generated marginal negative alpha for the past year, but is above 3-year targets
- The portfolio fulfilled its diversification and liquidity objectives
- The TIPS portfolio grew from \$797 Million to \$1.3 Billion over the last year while closely following its benchmark
- Completed Strategic Asset Allocation and are actively planning for best possible implementation
 - Current SAA Targets (6/30/22):
 - IGFI: 5% for Endowments, 19% for ITF
 - TIPS: 2% for Endowments and 4% for ITF
 - Long Treasuries: 2% for Endowments and 3% ITF
 - FYE 2023 SAA Targets:
 - IGFI: 0% for Endowments, 6% for ITF
 - TIPS: 2% for Endowments, 5% for ITF
 - Long Treasuries: 5% for Endowments, 7% for ITF



Appendix



2021 Priorities and Results

Deliver Results			Professional Development			Firmwide Collaboration			Portfolio Initiatives		
Action	Metric	Timing	Action	Metric	Timing	Action	Metric	Timing	Action	Metric	Timing
Continue portfolio performance and deliver positive alpha over FI benchmark for rolling 3yr period	0 to 80 bps of alpha	Dec-21	Enhance leadership and depth of managerial talent	Complete Executive Training Modules	Jun-21	Work with Risk to implement new UTIMCO U.S. economic cycle model	Apply to major asset classes and review	Dec-21	Support FY 2022 SAA to assess best mix to deal with economic uncertainties and peer competition	Final SAA results	Jun-21
Obtain approval for at least one manager to Premier List	# of managers	Sep-21	100% success rate on training and talent management plans	50 hours complete per professional	Dec-21	Aid in development of a robust WFH policy to make RTO as smooth as possible	Completion and use of plan	Jun-21	Complete Semiannual reviews with buy-in from Leadership Team	Semiannual / Business Plan	June-21 / Dec-21
Continuous improvement of critical processes	15% increased productivity	Dec-21	Institutionalizing Servant Leadership at UTIMCO from top to bottom	Show SL concepts in communication and customer service	Dec-21	Transition seamlessly from current bond analytic system to new risk system	Smooth usage of new system and apply to bond portfolios	Mar-21			
			Actively identify and develop junior talent that has longer term interest in Fixed Income	Hold macro and fixed income discussions that ferret out interest	Dec-21	Build robust UTIMCO culture and brand with peers, stakeholders, and industry	Give exposure to UTIMCO on external boards, peer orgs., teaching and conferences	Dec-21			
Generate attractive risk-adjusted returns while meeting allocation and regime targets			Hire the best candidates and invest in UTIMCO through leadership and development			Share best ideas and expertise across and outside the organization			Provide clarity on investment strategies throughout the organization		



Completed Initiative



On Track To Complete



Ongoing with Mixed Results



2022 Fixed Income Action Plan

Deliver Results			Professional Development			Firmwide Collaboration			Portfolio Initiatives		
Action	Metric	Timing	Action	Metric	Timing	Action	Metric	Timing	Action	Metric	Timing
Continue portfolio performance and deliver positive alpha over FI benchmark for rolling 3yr period	0 to 80 bps of alpha	Dec-22	100% success rate on training and talent management plans	50 hours complete per professional	Dec-22	Work with Risk to implement new UTIMCO U.S. economic cycle model	Apply to major asset classes and review	Jun-22	Support FY 2022 SAA by adding alpha in Long Treasury and TIPS sleeves	Initiate Overlay Programs and move from Global to Treasury benchmarks	Mar-22
Obtain approval for at least one manager to Premier List	# of managers	Sep-22	Practicing Essentialism and continuing Servant Leadership at UTIMCO from top to bottom	Show Essentialism and SL concepts in all activities	Dec-22	Transition from current to new risk system, keeping portfolio management system	Have FI summer semi-annual use the new common risk language and show usage case	Jun-22	Complete Semiannual reviews with buy-in from Leadership Team	Semiannual / Business Plan	June-22 / Dec-22
Continuous improvement of critical processes	15% increased productivity	Dec-22	Enhance UTIMCO understanding of FI at employee, intern and scholar levels	Create a Bonds 101 class (60-90 minutes)	Sep-22	Build robust UTIMCO culture and brand with peers, stakeholders, and industry	Give exposure to UTIMCO on external boards, peer orgs., teaching and conferences	Dec-22	Survey Peer Institutions to obtain better understanding of their Fixed Income philosophies	Completed survey and results	Sep-22
Generate attractive risk-adjusted returns while meeting allocation and regime targets			Hire the best candidates and invest in UTIMCO through leadership and development			Share best ideas and expertise across and outside the organization			Provide clarity on investment strategies throughout the organization		



Completed Initiative



On Track To Complete

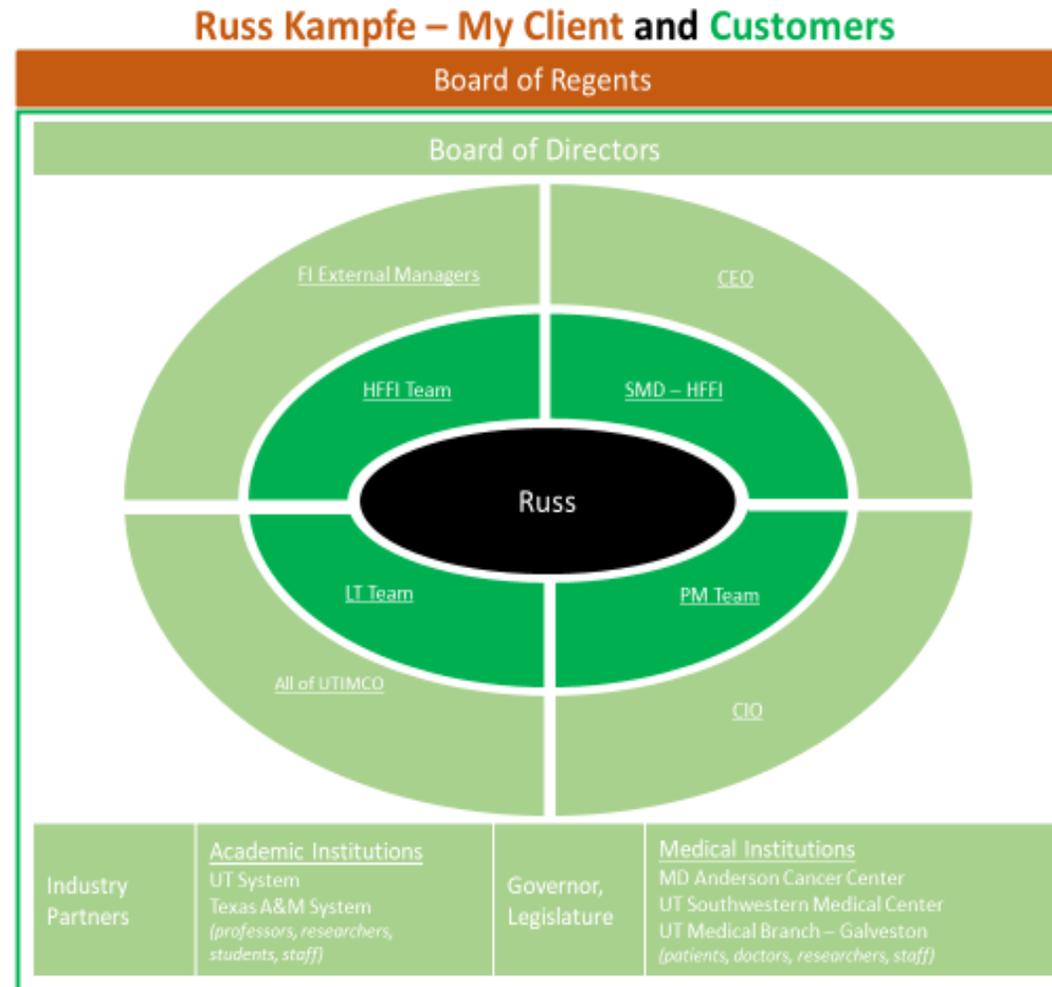


Ongoing with Mixed Results



Russ Kampfe – Managing Director, Fixed Income

Customer Map



Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item: Information Services & Security Presentation

Developed By: Sjolander, Deering

Presented By: Sjolander, Deering

Type of Item: Information Item

Description: Mike Sjolander and Gus Deering will provide a report on the Information Services and Security teams.

Reference: *Information Services & Security Overview* presentation



Information Services & Security Overview

Mike Sjolander, Managing Director

Gus Deering, CTO

September 15, 2022



Gus Deering - Chief Technology Officer

Work History

- USAA: 25 Years (1997 – 2022)
- UTHSC: 9 Years (1988 – 1997)

Experience

- IT Executive since 2003

Education

- Bachelor of Science from Kansas Wesleyan University





Executive Summary

Transitioning CTO Leadership

- Gus Deering Joined UTIMCO as the CTO on 8/29/2022

We Have a Strong Team

- New Chief Technology Officer
- New Leader of the Application Team
- Increasing Talent with Key Hires
- Employee Retention is a Priority

Advancing Technology Solutions and Providing Value

- Modernizing Legacy Applications
- Establishing New Data Architecture and Strategy
- Established Technology and Security Metrics
- Advancing Our Security Posture

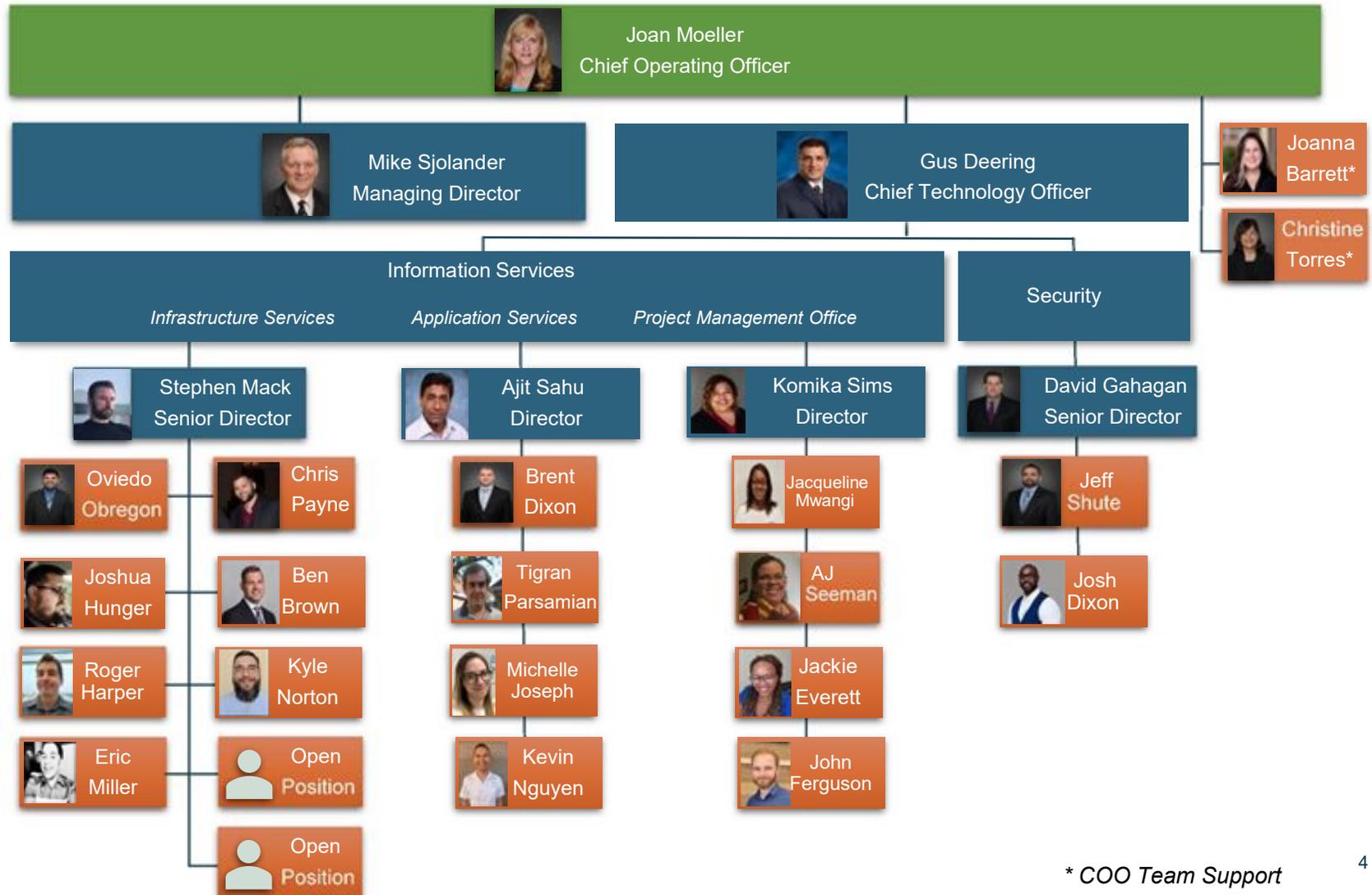
FY 2023 Top Priorities

- Information Classification Project
- Business Test of Disaster Recovery
- IT Awareness and Education



Information Services & Security Organization

We have a High Performing Team!



* COO Team Support



Team Functional Alignment

Experienced Leadership with Great Alignment



Stephen Mack
Senior Director

- **Infrastructure Services: Stephen Mack**

- IT Infrastructure Engineering
- Customer Experience Technology
- Customer Services (Help Desk)
- Disaster Recovery



David Gahagan
Senior Director

- **Security: David Gahagan**

- Security Monitoring & Compliance
- Security Assessments
- Security Education



Komika Sims
Director

- **Project Management: Komika Sims**

- Project Management for High Value Projects
- Portfolio Management



Ajit Sahu
Director

- **Application Services: Ajit Sahu**

- Software Development
- Software Maintenance



FY 2022 Major Accomplishments

The Team is Effective and Efficient

- **Always On, Available Anywhere, Always Secure:**
 - **Successful UT System Audit of UTIMCO IT Asset Management**
 - Initiated Information Classification Project
- **Advance the Business:**
 - Customer Engagement & Relationship
 - Established PowerBI as a reporting capability
 - **Established Data Mart Architecture for Analysis and Reporting**
- **Keep the Trains Running:**
 - **Modernize Legacy Applications**
 - **Established Technology & Security Metrics**
- **Recover the Business:**
 - Successful Technology Test of Disaster Recovery Capabilities
 - **Updated the Business Continuity Plan to include Cyber Event response**
- **Enhance Employee Productivity:**
 - **IT Awareness and Education initiatives**
 - Continued laptop and virtual desktop rollout



FY 2023 Top Priorities



Modernizing Legacy Applications

Information Classification Project

Data Strategy for increasing information access for improved analysis and reporting

Disaster Recovery test with business validation

IT awareness and education initiatives

Smooth CTO transition



Appendix



2022 Information Services & Security Action Plan

Always On; Available Anywhere	Always Secure	Advance the Business and Keep the Trains Running	Enhance Employee Productivity & Talent Mgt
<p>Q1 – Document IS Team Core Processes (SM)</p> <ul style="list-style-type: none"> Asset & Incident Management <p>Q2 – Successful Audit of IT Assets (SM)</p> <ul style="list-style-type: none"> No substantial findings <p>Q2 – Successful IT Only Business Continuity Test (SM)</p> <ul style="list-style-type: none"> Achieve 90% success rate <p>Q3 –ISS will work with Corporate Accounting to Replace Dynamics Desktop Application (KS)</p> <ul style="list-style-type: none"> Identify vendor (Q1) Go-live (Q3) <p>Q3 – Modernize Development Environment (SM)</p> <ul style="list-style-type: none"> Existing environment is retired <p>Q4 – Production Environment for PowerBI (SM)</p> <ul style="list-style-type: none"> Provide PowerBI training resources <p>Q4 – Partner with OAR to Implement New Data Architecture (AS)</p> <ul style="list-style-type: none"> Complete POC Multi-year plan with first year plan implemented 	<p>Q1 – Review Data Owner Compliance Process (DG)</p> <ul style="list-style-type: none"> Benchmark with client institutions <p>Q2 – Industry Standard Enhancements to Email Security (SM)</p> <ul style="list-style-type: none"> Apply DKIM/DMARC LCM of Exchange services <p>Q2 – Include Cyber Event in BCP (DG)</p> <ul style="list-style-type: none"> Updated BCP <p>Q3 – Identify an Open-Source Management Tool (DG)</p> <ul style="list-style-type: none"> Implement if viable <p>Q3 – Enable MFA for Institution Applications (SM)</p> <ul style="list-style-type: none"> Support UT system effort to migrate authentication services <p>Q4 – Complete Annual External Security Assessment (DG)</p> <ul style="list-style-type: none"> No substantial findings <p>Q4 – Core Network LCM (SM)</p> <ul style="list-style-type: none"> Replace firewalls and core network hardware MOD: Replace wireless 	<p>Q1 – Workstation Lifecycle Assessment (SM)</p> <ul style="list-style-type: none"> Select customer hardware Complete BYOD Assessment <p>Q2 – Partner with OAR to Support Information Classification Through Technology and PM (KS)</p> <ul style="list-style-type: none"> Complete 50% of the workflows MOD: Complete initial assessment and defined implementation plan. <p>Q3 – Assess IDM Alternatives (AS)</p> <ul style="list-style-type: none"> A "build vs buy" report is delivered MOD: Continue vs Retire IDM <p>Q3 – Improve PMO Operations (KS)</p> <ul style="list-style-type: none"> Develop Project Standards Establish Formal KPIs <p>Q4 – Partner with OAR for Successful Implementation of MPA, Replacing PAR (KS)</p> <ul style="list-style-type: none"> Retire PAR MOD: Launch MPA System <p>Q4 – Partner with OAR to Modernize Legacy Applications (AS)</p> <ul style="list-style-type: none"> Complete 5-7 Applications CRT Processes & Automation MOD: Remove CRT – It is a new system 	<p>Q2 – Customer Success Workshops (Help Desk) (SM)</p> <ul style="list-style-type: none"> Develop program and cadence <p>Q2 – Support CBT for Annual Compliance (DG)</p> <ul style="list-style-type: none"> Support transition to CBT <p>Q3 – Improve Workspace Security (SM)</p> <ul style="list-style-type: none"> Support 90% of applications on multiple platforms <p>Q3 – Identify and Implement Solution for ISS Procedures and Documentation (SM)</p> <ul style="list-style-type: none"> Establish documentation templates, and location <p>Q4 – Provide Project Management Awareness Training (KS)</p> <ul style="list-style-type: none"> Minimum of 3 sessions One external training session <p>Ongoing – Stay Committed to Mission, Vision, Values (ISS Team)</p> <p>Q4 – Adopt and Apply Essentialism into ISS workflow</p> <ul style="list-style-type: none"> "Less But Better": Improve our processes by eliminating bureaucracy
<p>> 99% Reliability</p>	<p>No Data Loss or Business Impact due to Security Event</p>	<p>Supported Business Goals</p>	<p>Improve Employee Experience</p>

Green = Success Criteria

Green = Actively Working

Blue = Completed

Amber = Risk

Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item:	Report from Audit and Ethics Committee
Developed By:	Team
Presented By:	Handley
Type of Item:	Information item
Description:	<p>The Audit and Ethics Committee (the “Committee”) met on September 9, 2022. The Committee’s agenda included (1) discussion and appropriate action related to the Committee minutes; (2) an update on UTIMCO’s compliance, reporting, and audit matters; and (3) a presentation of the unaudited financial statements for the Investment Funds and the Corporation. The Committee also met in Executive Session to receive an update on computer security assessments and audits related to information resources technology.</p>
Discussion:	<p>Ms. de Onis reported on quarterly compliance and the contracts report. In accordance with the Delegation of Authority Policy, UTIMCO reports any new contracts, leases or other commercial arrangements of \$250,000 or more to the UTIMCO Board at its next regularly scheduled meeting, and annually, all existing contracts, leases, or other commercial arrangements of \$250,000 or more. There were no new contracts, leases, or other commercial arrangements of \$250,000 or more from the prior reporting end date of May 25, 2022, through August 26, 2022.</p> <p>The Committee also reviewed the unaudited financial statements for the Funds for the nine months ended May 31, 2022, and the Corporation for the ten months ended June 30, 2022.</p>
Recommendation:	None
Reference:	None

Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item:	Report from Investment Risk Committee
Developed By:	Moeller, de Onís
Presented By:	Weaver
Type of Item:	Information item
Description:	The Investment Risk Committee (the “Committee”) met on September 9, 2022. The Committee’s agenda included (1) discussion and appropriate action related to the approval of minutes of its June 2, 2022 meeting and joint meeting of the Policy and Investment Risk Committees; (2) review and discussion of Securities Lending program; (3) review and discussion of compliance reporting; and (4) a market and portfolio risk update.
Discussion	<p>The Securities Lending Policy (“Policy”) describes the guidelines governing the Securities Lending agreement with the Investment Funds’ custodian, BNY Mellon. In accordance with the Policy, the Securities Lending program will be evaluated from time to time as deemed necessary by the UTIMCO Board. Michael McDermott, Head of Securities Lending Client Relationship Management, reviewed the program with the Investment Risk Committee.</p> <p>Ms. de Onís reviewed the quarterly compliance reporting and Dr. Yoeli presented an update on the market and portfolio risk.</p>
Recommendation:	None
Reference:	None

Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item: Report from Cyber Risk Committee

Developed By: Moeller

Presented By: Rothrock

Type of Item: Information Item

Description: The Cyber Risk Committee (the “Committee”) met on September 9, 2022. The Committee’s agenda included discussion and appropriate action related to the approval of minutes of its June 2, 2022 meeting. The Committee also met in Executive Session to receive an update on computer security assessments and audits related to information resources technology.

Recommendation: None

Reference: None

Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item: Report from Compensation Committee

Developed By: Moeller

Presented By: Nixon

Type of Item: Information Item

Description: The Compensation Committee (the “Committee”) will meet on September 12, 2022. The Committee’s agenda includes a discussion and appropriate action related to the approval of minutes of its June 2, 2022, meeting. The Committee will also meet in Executive Session for the purpose of deliberating individual personnel compensation and evaluation matters.

Recommendation: None

Reference: None

Agenda Item
UTIMCO Board of Directors Meeting
September 15, 2022

Agenda Item: Report on 2023 Meeting Dates

Developed By: Team

Presented By: Harris

Type of Item: Information item

Description: This agenda item presents the 2023 UTIMCO Board Meeting schedule and the Committee meetings schedule.

Recommendation: None

Reference: UTIMCO 2023 Meeting Dates



UTIMCO Meeting Dates

Meetings are held at the Corporate Offices:
 201 W. Seventh Street, Suite 1700
 Austin, TX 78701

2023 - Proposed								
	Audit & Ethics Committee	Compensation Committee	Policy Committee	Investment Risk Committee	Cyber Risk	UTIMCO Board of Directors	UT System Board of Regents	TAMU System Board of Regents
January								
February							2/22-23/2023	2/8-10/2023
March	03/23/23	03/23/23	03/23/23	03/23/23	03/23/23	03/30/23		
April								
May							5/3-4/2023	5/17-19/2023
June (Annual)	06/15/23	06/15/23	06/15/23	06/15/23	06/15/23	06/27/23		
July								
August							8/23-24/2023	8/16-18/2023
September	09/21/23	09/21/23	09/21/23	09/21/23	09/21/23	09/28/23		
October								
November	11/30/23	11/30/23	11/30/23	11/30/23	11/30/23		11/15-16/2023	11/8-10/2023
December		12/07/23				12/07/23		