



**Employee Pension Board of Trustees
Pension Board Meeting Agenda
October 21, 2020
4:00 PM
Online Meeting**

Zoom Link by Web: <https://us02web.zoom.us/j/84133674431>

Zoom by Phone: 1-312-626-6799 Meeting ID: 84133674431

Call to Order

Approve Agenda

New Business

Sunpointe - Implementation Update

Sunpointe Intro Meeting and CMO

Sunpointe - Capital Markets Overview

Sunpointe Market Environment Report 20Q4

Sunpointe - Review Results of Risk Tolerance Questionnaire

Sunpointe - Asset Allocation Discussion

Pension Contribution Payment

FY21 Resolution Pension Contribution

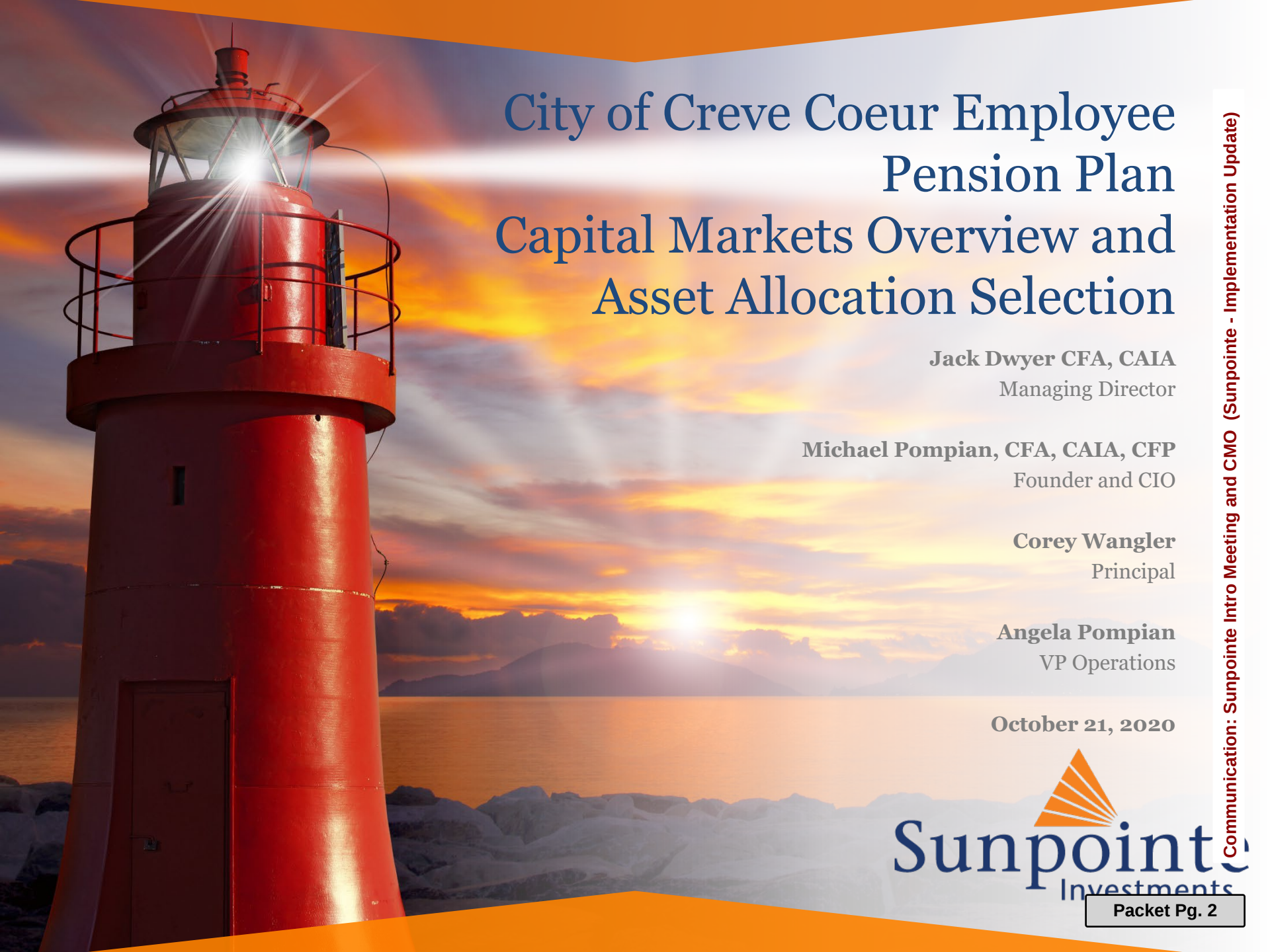
Old Business

Tabled Discussion on Investment Policy Decision

Creve Coeur IPS Revised May 2018

Creve Coeur IPS Commerce Fixed Income 2013

Adjournment



City of Creve Coeur Employee Pension Plan Capital Markets Overview and Asset Allocation Selection

Jack Dwyer CFA, CAIA
Managing Director

Michael Pompian, CFA, CAIA, CFP
Founder and CIO

Corey Wangler
Principal

Angela Pompian
VP Operations

October 21, 2020





Michael Pompian
CFA, CAIA, CFP, CTFA
Founder & CIO

- Over 25 years of investment experience
- Former head of Hammond Associates and Mercer Private Wealth overseeing \$8B.
- Behavioral finance expert
 - 5 books, global speaker
 - Author of CFA curriculum
 - Monthly Morningstar column
- Experience across brokerage firm, private bank, and family office
- Community Involvement includes coaching sports teams and church initiatives.
- MBA Tulane University
- BS University of New Hampshire



Jack Dwyer, CFA, CAIA
Managing Director

- 20 years of investment experience including institutional clients
- President of CFA Society St. Louis (2014-16) and Notre Dame Club of St. Louis (2010)
- Chaminade Alumni Board
- IC Chair for Our Lady's Inn
- Army veteran
- MBA Washington University in St. Louis
- BBA University of Notre Dame



Corey Wangler
Principal

- Serviced over \$1.2 billion in non-profit assets, including defined benefit plans
- Analytical and modeling expertise
- Board member for Junior Achievement and active in Michigan Warriors Program benefitting disabled veterans
- MS in Finance from the University of Colorado
- MBA from Central Michigan University
- BA Alma College



Angela Pompian
VP – Operations & Client Service

- Operations, client service and compliance for Sunpointe
- Global business experience
- Speaks five languages
- Volunteer for the church public school district
- MBA Columbia University
- BA McGill University

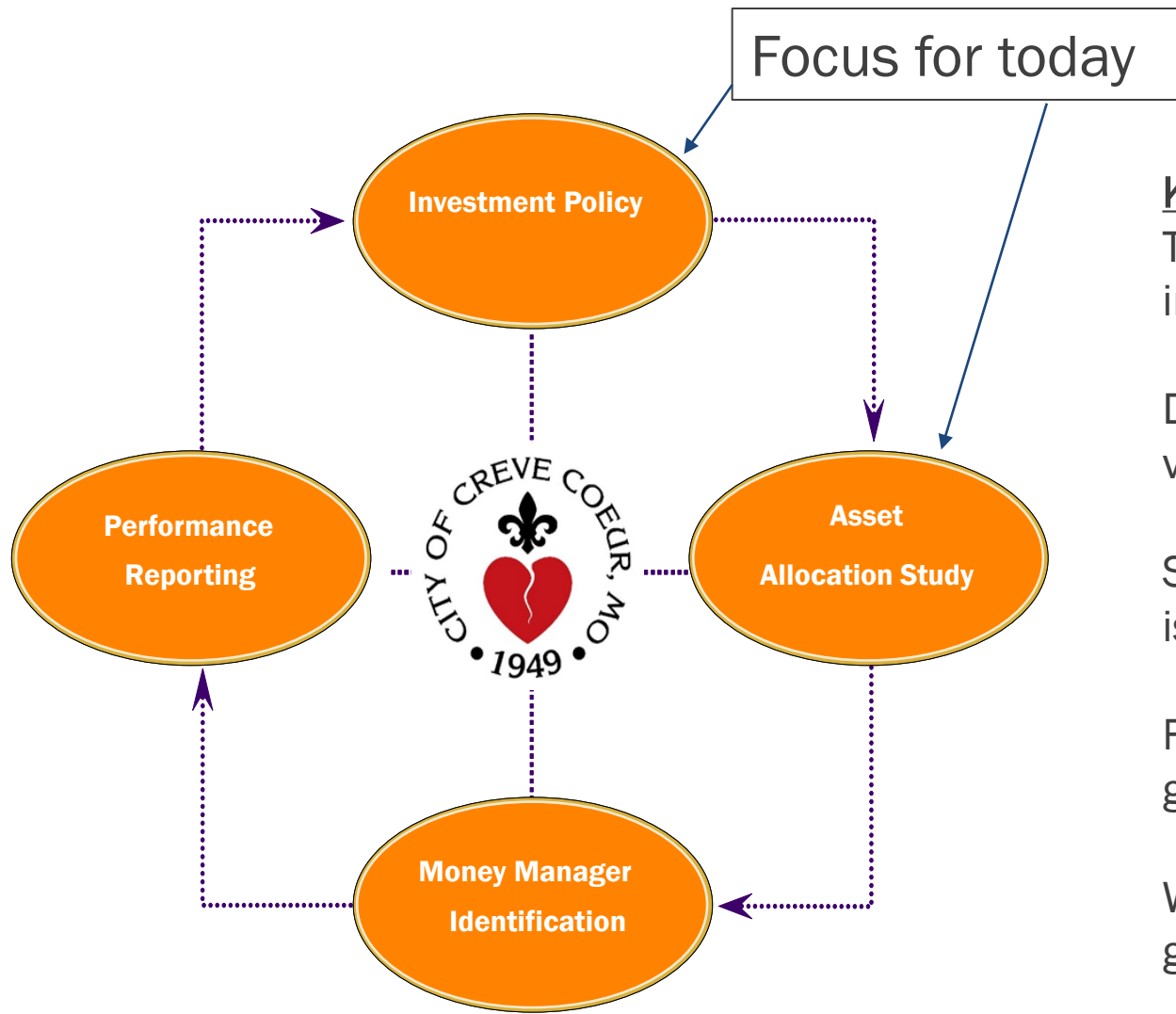
Capital Markets Overview

- Executive Summary
- Investment Policy Creation
- Asset Allocation Survey
- Appendix I: Active vs. Passive
- Appendix II: Liquidity and Alternative Investments
- Appendix III: Asset Class Definitions

Separate Handout: Market Environment Report

- Valuations
- Global Economic Outlook
- Asset Class Rankings
- Capital Market Assumptions

- Today we plan to:
 - Discuss risk and return objectives using your survey responses.
 - Provide an overview of asset allocation strategy in the current market environment and discuss the importance of asset allocation in the investment process.
 - Present an asset allocation study with a range of possible alternatives in order to gain agreement on the target asset allocation for the portfolio. **The main goal of today's meeting is to select a target asset allocation for the pension fund.**
 - Review any questions you may have on individual asset classes such as domestic and international equity, fixed income, alternative investments, and real assets.
- Much of the information regarding expected distributions and contributions is drawn from a Projection of Fiduciary Net Position that Conduent prepared for the pension in 2017. Milliman is in the process of producing an updated version.
- We have also included for your reference our asset class expectations, including definitions of asset classes. The Appendix also includes a review of correlation coefficients between asset classes.
- We may use terms today that are unfamiliar. Please let us know if you have questions.



Key Ideas:

Time Horizon is the most important decision

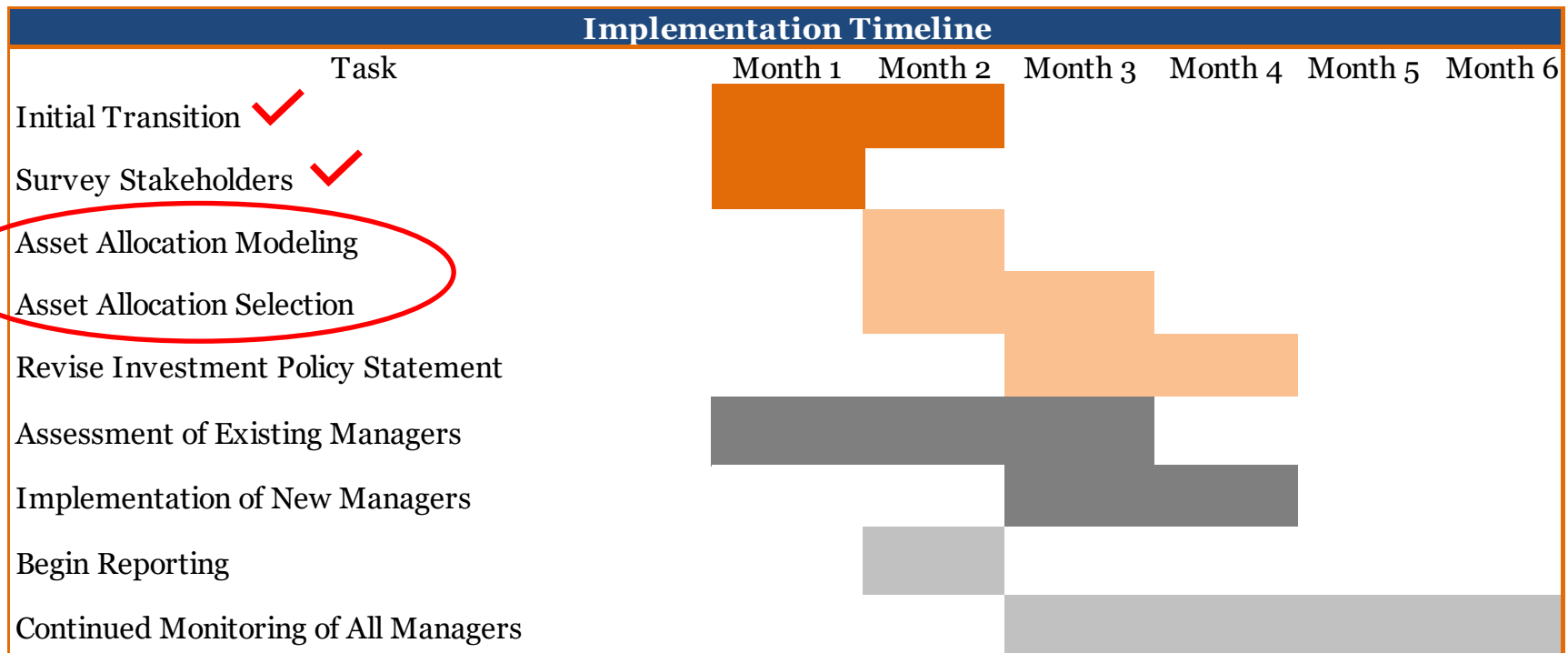
Diversification dampens volatility

Short Term Performance is random

Return uncertainty is greatest in the short run

Wealth uncertainty is greatest in the long run

- Surveys were completed the first week in October.
- Both Schwab and Commerce accounts are feeding into our reporting system.
- Had an initial meeting with Commerce on 10/15/2020
- Agreement effective 10/20/2020
- The focus of today's meeting is asset allocation modeling and the selection of a target asset allocation.



- Eight survey responses received.
- Common Ground: Everyone agreed that
 - It is extremely important there is sufficient money to pay beneficiaries (Q 11)
 - They feel calm and rational when markets are going up (Q 12)
 - You generally view yourself as guardians (Q 16)
- Areas to build consensus
 - Estimates of time horizon ranged from 7-50 years.
 - Many responses expressed relative risk aversion, but most said they would invest up to 75% of the plan in equities.
 - There were strong opinions both in favor of and opposed to the use of active management.
 - There was a wide range of opinions on how much liquidity (cash or short-term investments) was desired.
- Most were hesitant regarding alternative assets.

- Everyone expects inflation to be below 3% over the next 5 years;
 - 5 of 8 responses expect inflation between 1-2%.
- Half the respondents expect US equity returns to be between 5-7.5%, but two members expect higher than that and two expect annual returns lower than 5%.
- Most expect bond returns to be below 3%.

18. What are your return expectations for U.S. stocks over 5 years?

[More Details](#)

Less than 5%	2
5-7.5%	4
7.5%-10%	2
>10%	0



20. What are your return expectations for U.S. bonds over 5 years?

[More Details](#)

Less than 1%	3
1-3%	3
>3-5%	1
>5%	1



Sunpointe
Expected Return

5.6%

2.7%

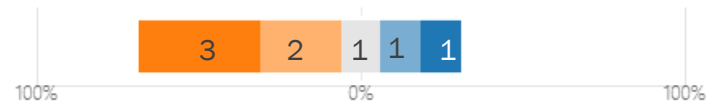
- Most are okay with the plan experiencing a loss in a particular year, but everyone agrees that it is moderately to very important to meet the return goal over the long term and extremely important to have sufficient funds to pay beneficiaries.

9. How important is it to you that the portfolio never experience a loss in any one year period?

[More Details](#)

Not at all Somewhat Moderately Very important Extremely important

How important is it to you that the portfolio never experience a loss in any one year period?

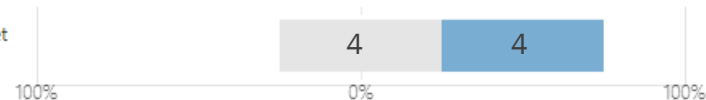


10. How important is it to you that the goal return be met over the long term?

[More Details](#)

Not important Somewhat Moderately Very important Extremely important

How important is it to you that the goal return be met over the long term?

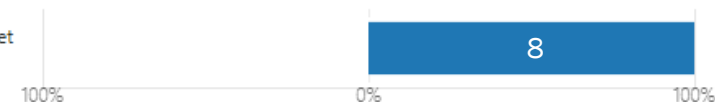


11. How important is it to you that there is sufficient money to pay the beneficiaries?

[More Details](#)

Not important Somewhat Moderately Very important Extremely important

How important is it to you that the goal return be met over the long term?

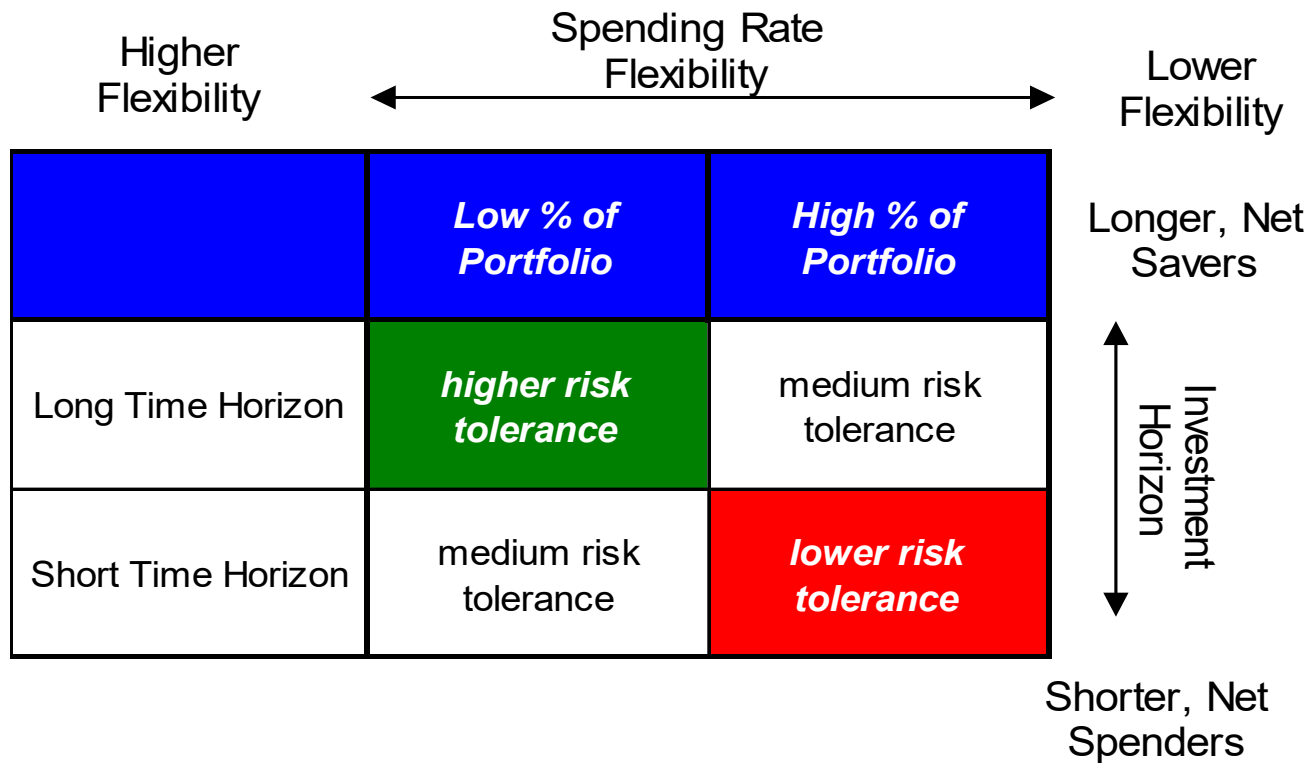


Investment Policy Creation

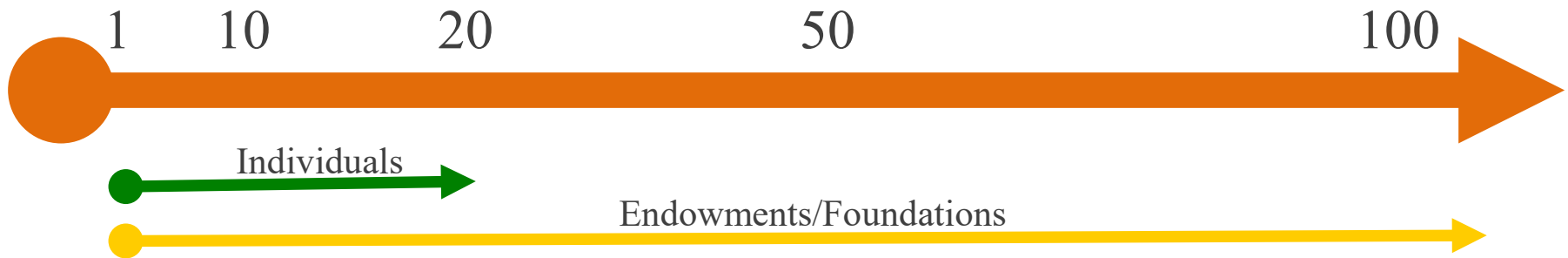
An Investment Policy should address:

- Time Horizon
- Portfolio Return Objectives
 - Return Need (6.9% modeled in Conduent's 2017 analysis, 6.75% current assumption)
 - Spending
 - Growth
 - Inflation
- Portfolio Risk
- Current Policy Asset Allocation (%) (selected today)
- Rebalancing Policy
- Constraints
 - Liquidity (keep \$_____in cash and money markets)
 - Prohibited Investments

Pension Funds with low spending rates (or high spending flexibility) and a long time horizon should be far more willing to take more investment risk than those with high spending rates and a short time horizon.



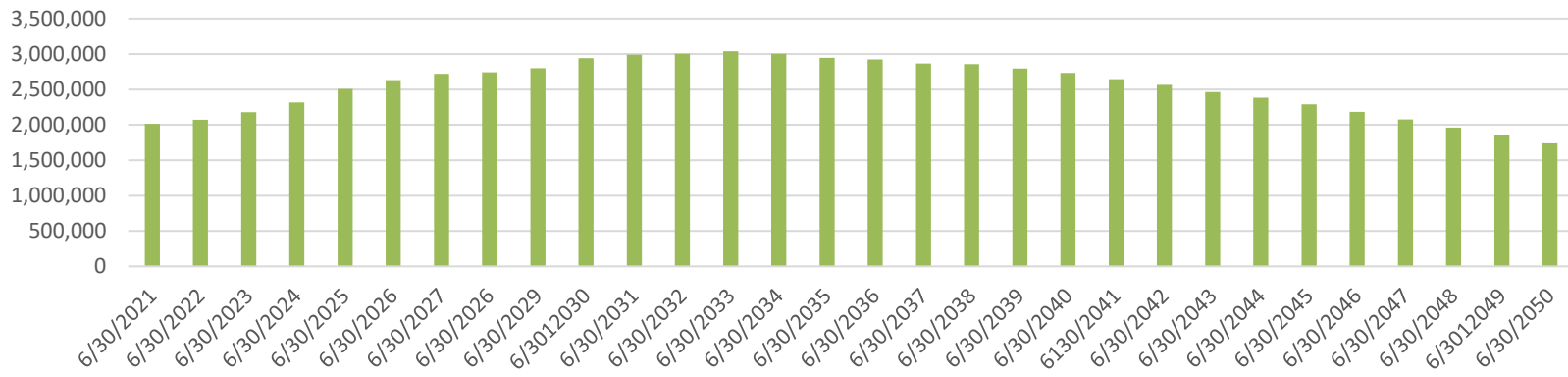
- Time horizon is a critical consideration in selecting an appropriate asset allocation. Investors with a short time horizon should favor liquid investment such as public equities, high-grade bonds and cash. Investors with a long time horizon should be able to withstand short term volatility and invest in illiquid investments.



- Time Horizon survey results:
 - 20 years was the most common answer, but ranged from:
 - “7-10 years, since it is a frozen plan the assets will rapidly begin depleting in 5 years” to
 - “40-50 years”
 - According to the Conduent analysis, the Pension balance is projected to be about \$32 million in 2030 and about \$23 million in 2040, assuming projected contributions from the City.
 - Given the above, we would recommend a time horizon of 20 years if there are no plans to annuitize, understanding that the volatility of returns over the next 15 years is important because expected payments peak at about \$3 million between 2032-24

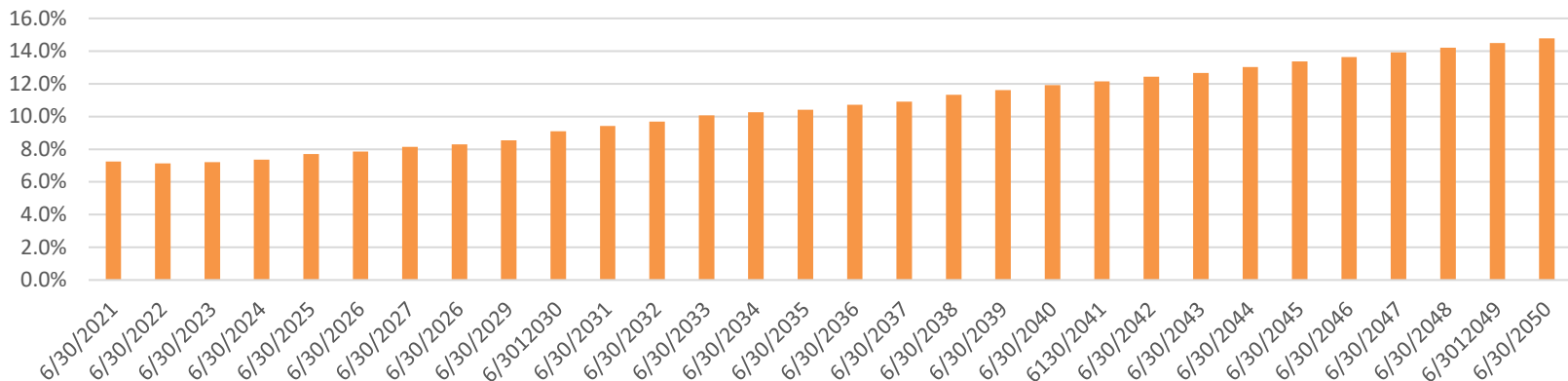
- Benefit payments are expected to increase over the next 10 years

Projected Benefit Payments



- While the distribution rate is currently near 7.5%, it is expected to climb steadily

Projected Distribution Rate



Sources: Conduent Projection of Fiduciary Net Position from 2017, Sunpointe graphs

- There does not seem to be consensus about how much risk the pension fund can tolerate.
 - Half felt the fund should emphasize growth
 - Half felt investments should be more conservative.

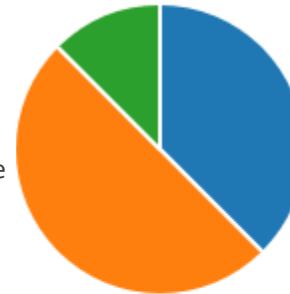
3. While recognizing that investments in the financial markets carry an element of risk, which of the following statements is most true?

- Safety of principal is my primary concern. The appreciation of capital and income is a secondary consideration. (2)
- My investments should be relatively safe and emphasize current income. (1)
- My investments can be exposed to a moderate amount of risk, with a primary goal of generating income. (1)
- My investments can be exposed to risk and should emphasize growth over time, but should also generate some income. (3)
- My investments should grow substantially over time and be exposed to considerable market risk. I do not need current income. (1)



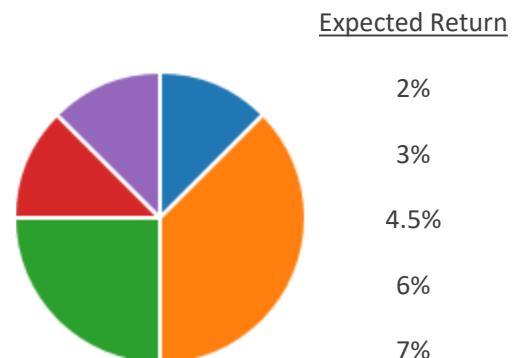
- The responses are skewed towards more conservative, but a wide range exists
5. In general, volatile investments are uncertain in the short term, but may produce greater returns in the long term compared with stable investments. Similarly, volatile investments may produce greater losses than stable investment choices. With respect to your long term goals, how much volatility are you willing to accept?

- Minimal. I prefer stable investments with current income comprising the majority of the returns. (3)
- Some. There can be some declines in value so long as income is generated & the investment exhibits some appreciation over time. (4)
- Moderate. Somewhat volatile performance is acceptable as long as the investment's goal is capital appreciation over the long term. (1)
- Considerable. Substantial risk can be undertaken to pursue greater returns. (0)



6. Consider the following two hypothetical investments, A and B. A provides an annual return of 2% with minimal risk of principal loss. B provides an average annual return of 7%, but carries a potential principal loss of 17% or greater in any one year. If you could choose to invest in A and B to meet the fund's goals, you would invest how?

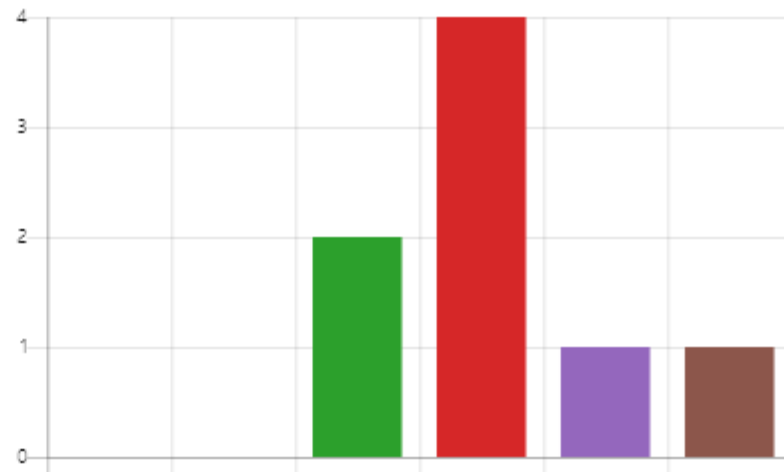
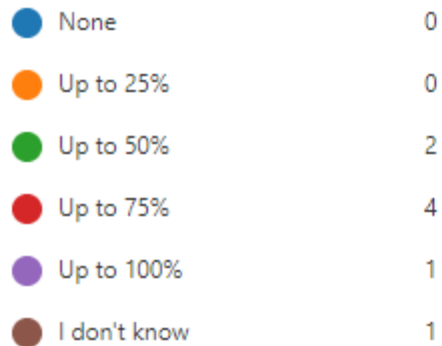
- I would invest 100% in A and 0% in B: 2% expected return (1)
- I would invest 80% in A and 20% in B: 3% expected return (3)
- I would invest 50% in A and 50% in B: 4.5% expected return (2)
- I would invest 20% in A and 80% in B: 6% expected return (1)
- I would invest 0% in A and 100% in B: 7% expected return (1)



- However, the majority of respondents think that up to 75% of the fund should be invested in equities. This would indicate a higher risk tolerance.

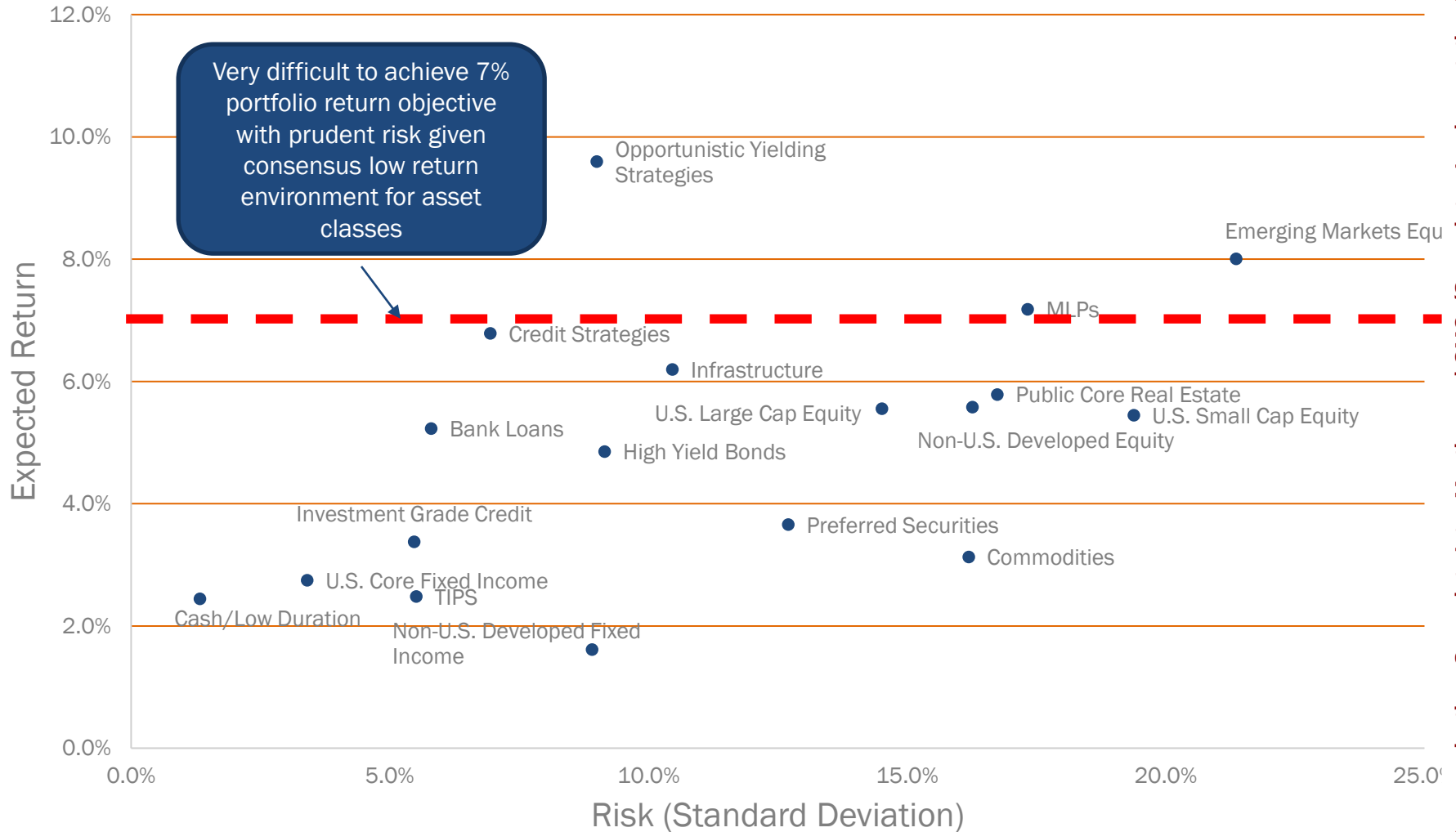
21. What percentage of the fund should be invested in equities?

[More Details](#)



Asset Allocation

10-Year Average Expected Returns



Asset Classes can be thought of as building blocks, like the individual players that make up an American Football team.



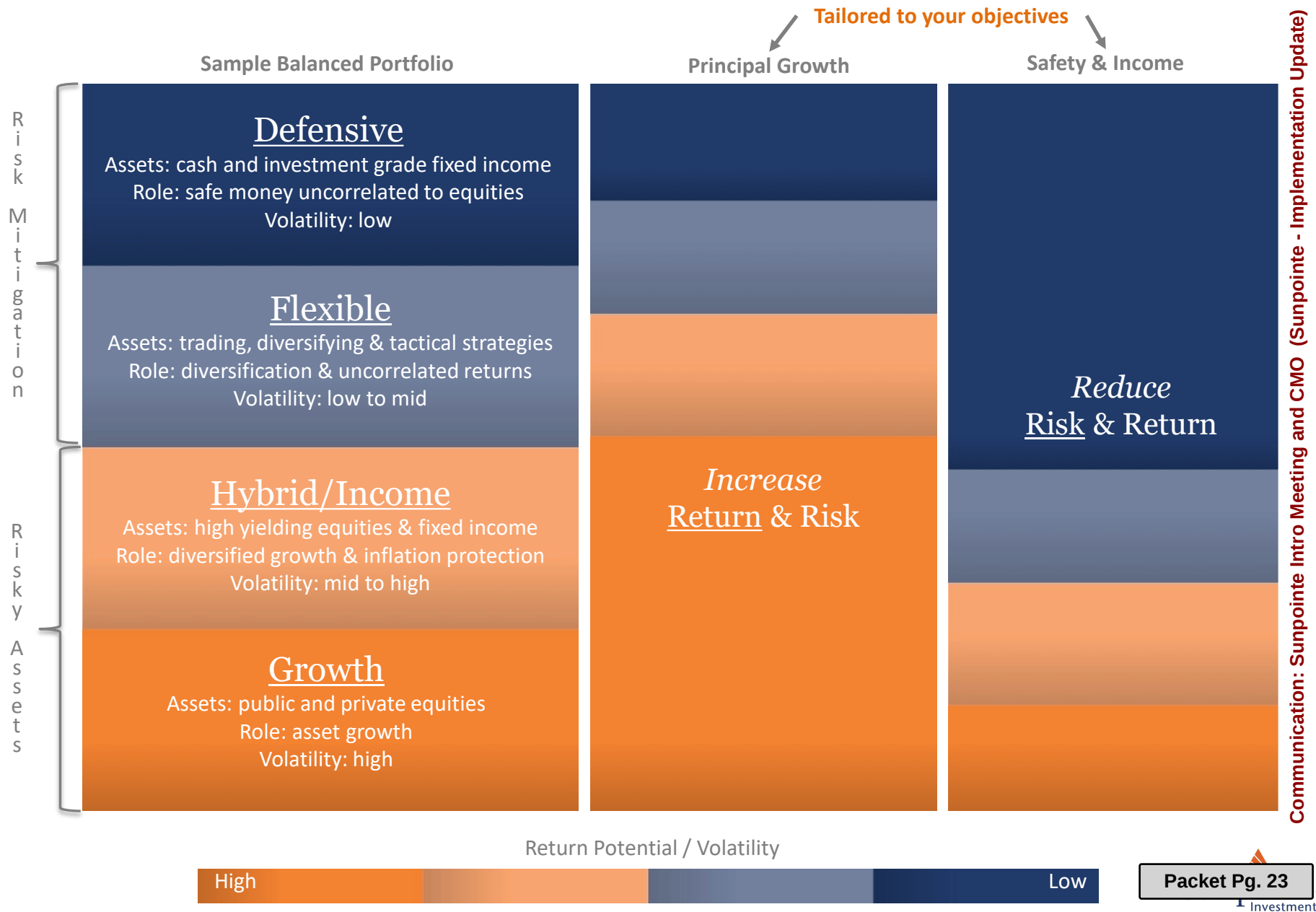
<u>Offense</u>	<u>Defense</u>
US Equities	Cash / Low Duration
Global Equities	Investment Grade
High Yield Bonds	Bonds
Real Estate	Low Volatility Hedge
Infrastructure / MLPs	Funds
Commodities	Credit Strategies
Opportunistic Yielding Strategies	

10-Year Forward Expected Returns

21

Communication: Sunpointe Intro Meeting and CMO (Sunpointe - Implementation Update)

Asset Class	Representative Index	2019 Arithmetic Expected Return	2020 Arithmetic Expected Return	2019-2020 Difference	2020 Compound Expected Return	2020 Standard Deviation	2020 Yield	10 Year Benchmark Return (2010-2019)
Cash/Low Duration	FTSE 3-Month Treasury Bills	2.5%	2.5%	-0.1%	2.4%	1.3%	1.6%	0.6%
Municipal Bonds	Barclays Intermediate Municipal 5-10 Year	3.4%	2.6%	-0.8%	2.6%	3.8%	1.8%	4.0%
Municipal High Yield	Barclays High Yield Municipal	4.7%	4.3%	-0.5%	4.0%	7.3%	4.2%	7.2%
Investment Grade Credit	Barclays U.S. Corporate Investment Grade	4.2%	3.5%	-0.6%	3.4%	5.5%	2.8%	5.5%
U.S. Core Fixed Income	Barclays U.S. Aggregate	3.7%	2.8%	-0.9%	2.7%	3.4%	2.3%	3.8%
Non-U.S. Developed Fixed Income	FTSE WGBI NonUSD	2.5%	2.0%	-0.6%	1.6%	8.9%	0.7%	1.4%
Bank Loans	Credit Suisse Leveraged Loan	5.6%	5.4%	-0.2%	5.2%	5.8%	6.1%	8.2%
High Yield Bonds	Barclays U.S. Corporate High Yield	5.7%	5.2%	-0.4%	4.8%	9.2%	5.4%	7.6%
Emerging Market Debt	50% JPM EMBI Global / 50% JPM GBI-EM Gbl Div	6.4%	5.1%	-1.3%	4.7%	9.3%	5.1%	4.7%
Preferred Securities	S&P Preferred Stock	5.3%	4.4%	-0.9%	3.7%	12.7%	4.8%	7.3%
Credit Strategies	Blended Private Debt Index	7.4%	7.0%	-0.4%	6.8%	6.9%	7.3%	8.5%
Diversifying Strategies	HFRI Fund of Funds Conservative	4.7%	4.7%	0.0%	4.2%	10.0%	0.0%	2.8%
Tactical Asset Allocation	60% MSCI ACWI / 40% Barclays U.S. Aggregate	5.8%	5.3%	-0.5%	5.0%	7.5%	2.3%	7.1%
Trading Strategies (Equity Long/Short)	HFRI Equity Hedge	6.5%	6.3%	-0.2%	4.8%	10.0%	0.0%	4.7%
U.S. Large Cap Equity	S&P 500	6.7%	6.5%	-0.2%	5.6%	14.5%	1.9%	13.6%
U.S. Mid Cap Equity	Wilshire U.S. Mid Cap	7.9%	7.6%	-0.3%	6.2%	17.4%	1.7%	13.2%
U.S. Small Cap Equity	Wilshire U.S. Small Cap	7.6%	7.2%	-0.4%	5.4%	19.4%	1.5%	11.8%
Global Equity	MSCI ACWI	7.2%	7.0%	-0.2%	5.9%	15.3%	2.4%	9.4%
Non-U.S. Developed Equity	MSCI EAFE	7.2%	6.8%	-0.4%	5.6%	16.3%	3.2%	6.0%
Non-U.S. Developed Small Cap Equity	MSCI EAFE Small Cap	8.2%	7.8%	-0.5%	6.4%	17.5%	2.6%	9.1%
Emerging Markets Equity	MSCI Emerging Markets	10.2%	10.1%	-0.1%	8.0%	21.4%	2.6%	4.0%
China Equity	MSCI China	N/A	10.7%	N/A	8.0%	23.4%	1.5%	5.4%
Private Equity	Cambridge U.S. Private Equity	12.0%	12.0%	0.0%	9.6%	22.0%	0.0%	16.4%
MLPs	Alerian MLP	9.4%	8.6%	-0.8%	7.2%	17.3%	6.4%	4.2%
TIPS	Barclays U.S. Treasury TIPS	3.1%	2.6%	-0.5%	2.5%	5.5%	0.2%	3.4%
Public Core Real Estate	FTSE NAREIT All Equity REITs	7.0%	7.1%	0.1%	5.8%	16.7%	3.7%	12.6%
Private Real Estate	NCREIF Property	9.0%	9.0%	0.0%	7.6%	17.0%	0.0%	9.8%
Opportunistic Yielding Strategies	Blended Private Debt Index	10.0%	10.0%	0.0%	9.6%	9.0%	7.3%	8.5%
Commodities	Bloomberg Commodity	4.5%	4.3%	-0.2%	3.1%	16.2%		
Infrastructure	S&P Global Infrastructure	6.9%	6.7%	-0.2%	6.2%	10.5%		



	50% Risk Passive	50% Risk W/ Alts	60% Risk Passive	60% Risk W/ Alts	70% Risk Passive	70% Risk W/ Alts	80% Risk Passive	80% Risk W/ Alts	CCEPP Strategic Policy	Content
Risk Mitigation										
Total Defensive	50%	30%	40%	20%	30%	14%	20%	10%	30%	
Total Flexible	0%	20%	0%	20%	0%	16%	0%	10%	0%	
Total Risk Mitigation	50%	50%	40%	40%	30%	30%	20%	20%	30%	
Risky Asset										
Total Growth	50%	37%	60%	47%	70%	56%	80%	65%	64%	
Total Hybrid/Income	0%	13%	0%	13%	0%	14%	0%	15%	6%	
Total Risky Asset	50%	50%	60%	60%	70%	70%	80%	80%	70%	
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Return										
10 Yr. Horizon Expected Return	4.7%	5.7%	5.1%	6.0%	5.4%	6.2%	5.6%	6.4%	5.2%	
Risk (Using 10-yr Horizon Returns)										
Standard Deviation (1 Yr.)	7.7%	7.8%	9.3%	9.4%	10.8%	10.7%	12.4%	11.9%	10.5%	
Lowest Likely Return (1 Yr.)	-12.9%	-12.3%	-16.1%	-15.4%	-19.3%	-18.1%	-22.6%	-20.7%	-18.8%	
Sharpe Ratio	0.30	0.41	0.28	0.38	0.27	0.35	0.26	0.33	0.2	
Probability of Achieving 7.0% Goal Return										
10 Years	17.7%	29.9%	25.8%	37.0%	31.7%	40.8%	36.4%	43.2%	29.6%	

Passive Portfolios:

- The expected return for passive portfolios range from 4.7% at 50% risk to 5.6% at 80% risk
- The lowest likely return decreases to -12.9% at 50% risk from -22.6% at 80% risk

Portfolios with a mix of passive and active management, including alternatives (yielding strategies):

- The expected return increases by 0.9% on average
- The lowest likely return decreases by 1.1% on average
- The likelihood of achieving a 7% return increases by 9.8% on average
- The improved statistics are due to improved diversification and the use of yielding strategies

	50% Risk Passive	50% Risk W/ Active	60% Risk Passive	60% Risk W/ Active	70% Risk Passive	70% Risk W/ Active	80% Risk Passive	80% Risk W/ Active	CCEPP C Strate Poli	nt
Risk Mitigation										
US Core Fixed Income	50%	30%	40%	20%	30%	14%	20%	10%	30%	
Total Defensive	50%	30%	40%	20%	30%	14%	20%	10%	30%	
Diversifying Strategies		5%		5%		3%				
Trading Strategies (L/S)		5%		5%		3%				
Credit Strategies		10%		10%		10%		10%		
Total Flexible	0%	20%	0%	20%	0%	16%	0%	10%	0%	
Total Risk Mitigation	50%	50%	40%	40%	30%	30%	20%	20%	30%	
Risky Asset										
US All Cap/Large Cap Equity	23%	17%	26%	21%	31%	25%	35%	29%	27%	
US Mid Cap Equity	6%	5%	8%	6%	9%	7%	10%	8%	5%	
US Small Cap Equity	3%	2%	4%	3%	5%	4%	6%	5%	9%	
Intl All Cap/Large Cap Equity	10%	7%	12%	9%	14%	11%	16%	13%	13%	
Intl Small Cap Equity	2%	1%	2%	2%	2%	2%	3%	2%	6%	
Emerging Market Equity	6%	5%	8%	6%	9%	7%	10%	8%	4%	
Total Growth	50%	37%	60%	47%	70%	56%	80%	65%	64%	
Infrastructure		3%		3%		4%		5%		
Commodities									3%	
Public Core Real Estate									4%	
Opportunistic Yielding Strategies		10%		10%		10%		10%		
Total Hybrid/Income	0%	13%	0%	13%	0%	14%	0%	15%	6%	
Total Risky Asset	50%	50%	60%	60%	70%	70%	80%	80%	70%	
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Return										
10 Yr. Horizon Expected Return	4.7%	5.7%	5.1%	6.0%	5.4%	6.2%	5.6%	6.4%	5.2%	
Risk (Using 10-yr Horizon Returns)										
Standard Deviation (1 Yr.)	7.7%	7.8%	9.3%	9.4%	10.8%	10.7%	12.4%	11.9%	10.5%	
95% Confidence Return Range (1 Yr.)	-10.7% - 20.1%	-10% - 21.4%	-13.5% - 23.7%	-12.8% - 24.8%	-16.3% - 27.1%	-15.2% - 27.6%	-19.3% - 30.5%	-17.5% - 30.2%	-15.9% - 3%	
95% Confidence Return Range (10 Yr.)	-0.1% - 9.6%	0.7% - 10.7%	-0.8% - 11%	0.1% - 12%	-1.5% - 12.2%	-0.6% - 13%	-2.2% - 13.5%	-1.2% - 13.9%	-1.5% - %	
Probability of 10% or Worse Loss	2.6%	2.1%	4.8%	4.0%	7.1%	5.9%	9.4%	7.7%	6.8%	
Lowest Likely Return (1 Yr.)	-12.9%	-12.3%	-16.1%	-15.4%	-19.3%	-18.1%	-22.6%	-20.7%	-18.8%	
Lowest Likely Return (10 Yr.)	-0.8%	0.1%	-1.5%	-0.6%	-2.3%	-1.3%	-3.0%	-2.0%	-2.2%	
Sharpe Ratio	0.30	0.41	0.28	0.38	0.27	0.35	0.26	0.22	0.26	
Probability of Achieving 7.0% Goal Return										
10 Years	17.7%	29.9%	25.8%	37.0%	31.7%	40.8%	36.4%	43.2%	29.6%	

Appendix I: Active / Passive

1. Managing Behavior Enhances Investment Results
2. History Informs but Does Not Guide the Future
3. A Blend of Active and Passive Investing Is the Best Solution
4. Investing With a “Margin of Protection” Is the Foundation of Our Portfolio Management

Survey comments:

- We MUST have a combination of active and passive investing.
- Keep it simple, even if the return assumption has to be lowered. For this fund I am strongly committed to all passive. Arguments to use active "for a small part of the fund" do not influence me. Even if it does well the overall impact will be small. I believe in no style bias on the equity side. I do not shy away from hi-yield bonds because they correlate with equities.

Active manager performance by asset class:

- The more efficient the asset class, the less dispersion between managers. Therefore, we will tend to lean heavily toward passive management in asset classes like US large cap equities.
- On the other hand, we focus resources on selecting active managers in less efficient asset classes like US small-cap and international equities that present more opportunities.

Active equity manager outperformance January 2010-June 2019	
	Percent of Managers outperforming respective ETF
US Large-cap	42%
US Mid-cap	49%
US SmallCap	54%
International (ACWI ex US)	64%
International Developed (EAFE)	61%
Emerging Markets	65%

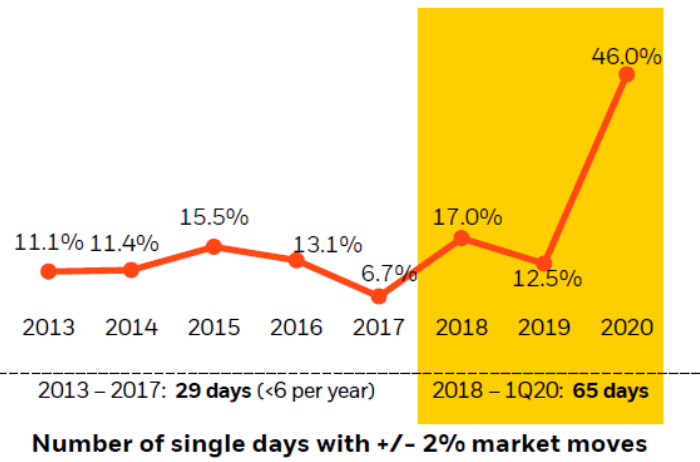
Source: eVestment, JP Morgan Asset Management, 2019

- Record low bond yields and increasing stock volatility make it less likely that a portfolio made up of only stocks and bonds will continue to perform as well as it has recently.

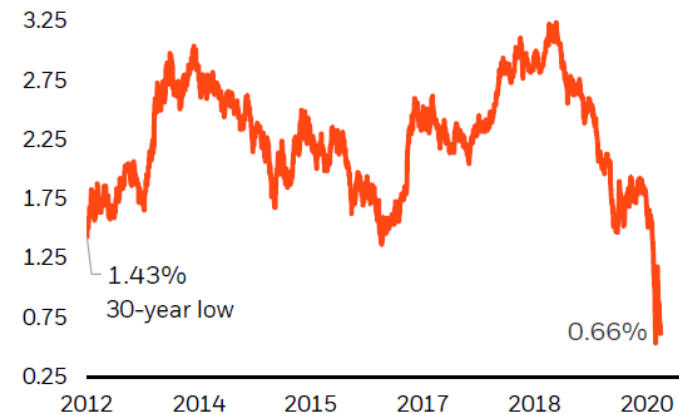
TODAY MORE THAN EVER

60/40 portfolios are under pressure

“The 60”
Stock volatility is increasing
Annual volatility of the S&P 500



“The 40”
Bonds yields are at record lows
10-yr Treasury yield



New sources of return and diversification may be needed.

Past performance is no guarantee of future results. Equity market data source: Morningstar, as of 6/30/20, represented by the S&P 500 Index. Average annual volatility based on standard deviation. Index performance is for illustrative purposes only. It is not possible to invest in an unmanaged index. Rates data source: U.S. Dept. of the Treasury as of 6/30/20. Data is since 7/25/12 when the 10-year Treasury hit a 30 year low point.

- Most benchmarks are market-capitalization weighted which can lead to issues like concentration in a few stocks if they perform particularly well.
- Market capitalization in the top 5 stocks has approached record highs. Active managers are not forced to hold the largest weights in stocks that have already appreciated.

Market Cap of 5 Largest Companies as Share of S&P 500 Index (%)



Source: Compustat, Goldman Sachs Global Investment Research, and GSAM as of September 8, 2020. Chart shows the market capitalization of the 5 largest companies in the S&P 500 Index as a percent of the total market cap. Past performance does not guarantee future results, which may vary.

Appendix II: Liquidity and Alternatives

With regard to liquidity, is there an absolute dollar amount or percentage you wish to keep liquid (cash, money market) at any one time? If so, how much?

- Depends upon pension payment requirements
- Zero
- Only enough to pay one or two months of participant benefits
 - This could be up to \$333,000 (about 1.3% of the portfolio)
- Enough to meet annual liabilities, fees, any other expenses.
 - This could be up to \$2 million (about 8% of the portfolio)
- Up to 10%.
- Five years worth of benefit payments.
 - This could be up to \$10 million (about 40% of the portfolio)

- Although investors hold mutual funds for about 4.5 years on average, mutual fund managers can not invest in less liquid markets and must hold cash to fulfill potential redemptions.

OVERCOMING BEHAVIORAL BIASES

Liquidity bias

Recency bias

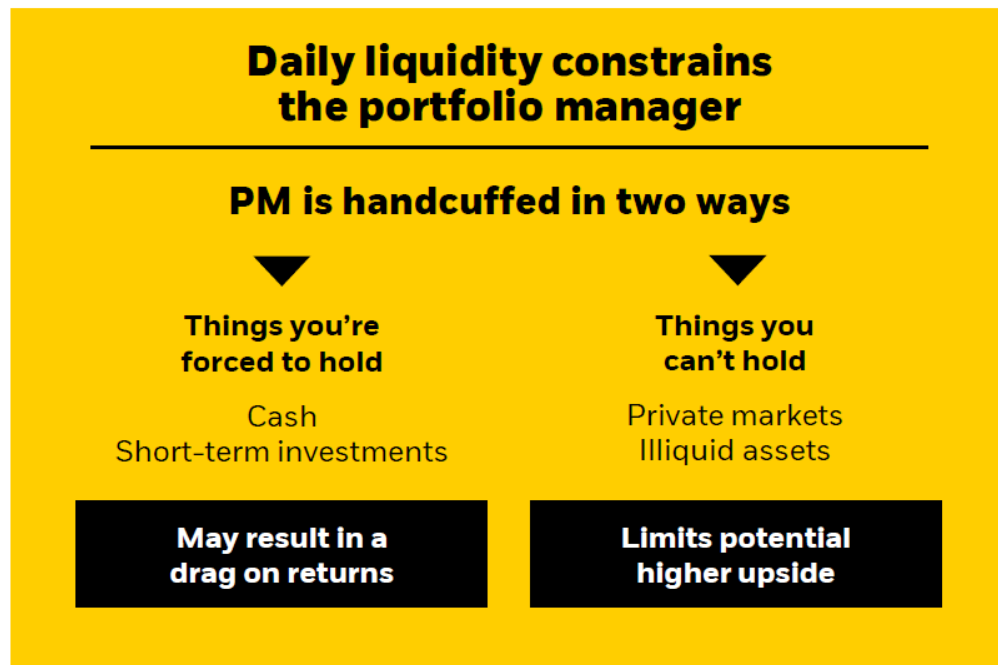
Daily liquidity comes with a cost

Do you need it?

1,642 days

Average holding period
for mutual funds

Typically there is no
drawback to monthly or
even quarterly liquidity



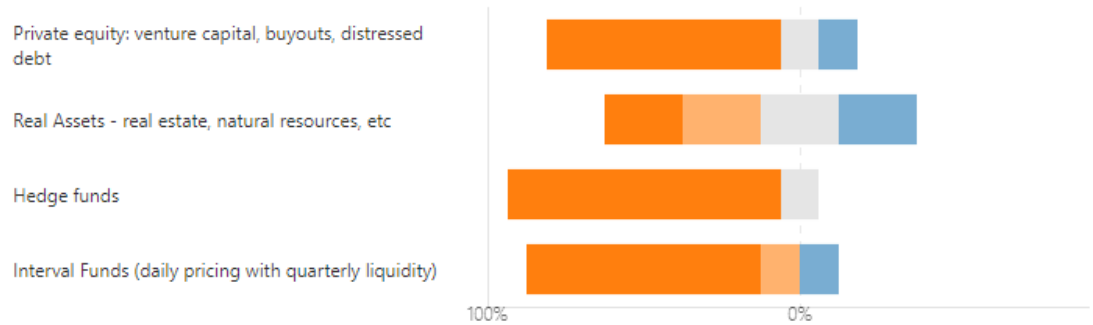
Source: Dalbar as of 12/31/19. 4.5 years is the average holding period for an equity mutual fund.

- Board Members expressed reservations about the use of alternative across the board.
- We would agree that private equity funds are not appropriate for the Pension Plan.
- Given the long time horizon of the fund, there may be some opportunities to accept illiquidity in an attempt to achieve higher expected returns.

14. Please indicate how comfortable you are with each of the investment strategies listed below

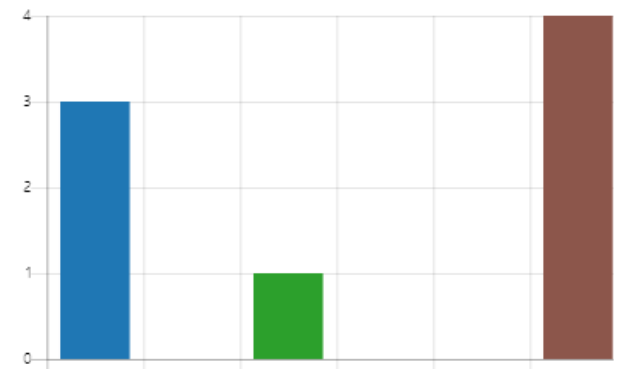
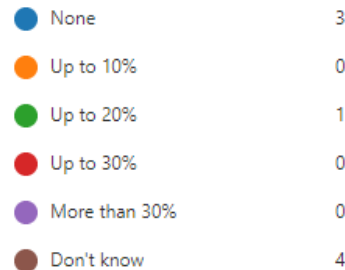
[More Details](#)

Not comfortable Somewhat comfortable Moderately comfortable Very comfortable Extremely comfortable



24. What percentage of the fund should be invested in yielding credit strategies ?

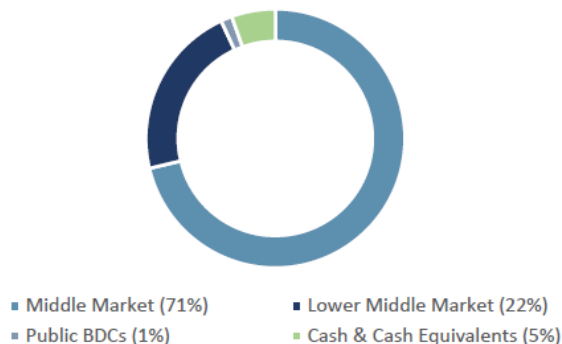
[More Details](#)



1. Invest as you always have and settle for today's low returns
2. Reduce risk in deference to the high level of uncertainty and accept even lower returns
3. Increase risk in pursuit of higher returns
4. Put more into special niches and special investment managers

- Interval funds provide investors such features as:
 - daily pricing
 - 1099 tax reporting
 - quarterly liquidity with a fund-level gate of 5-25% of NAV.
- The interval fund structure allows accredited investors the opportunity to access less liquid, potentially higher yielding alternative investments.
- Details on two interval funds are included on the following pages.

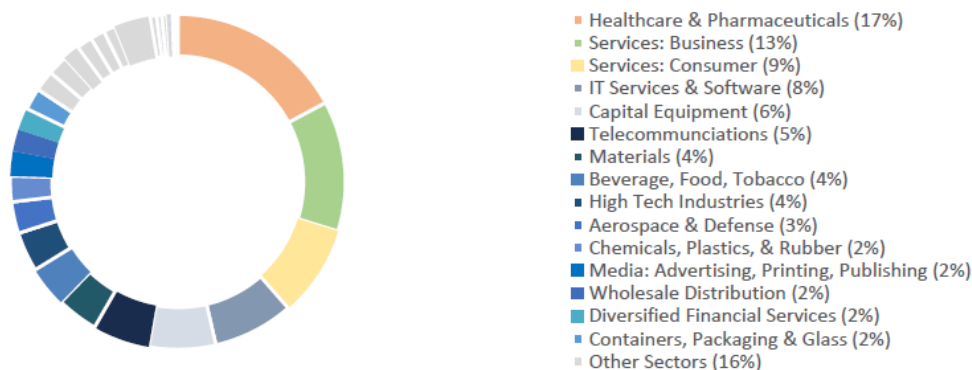
Fund Allocations



Direct & Underlying Loan Characteristics

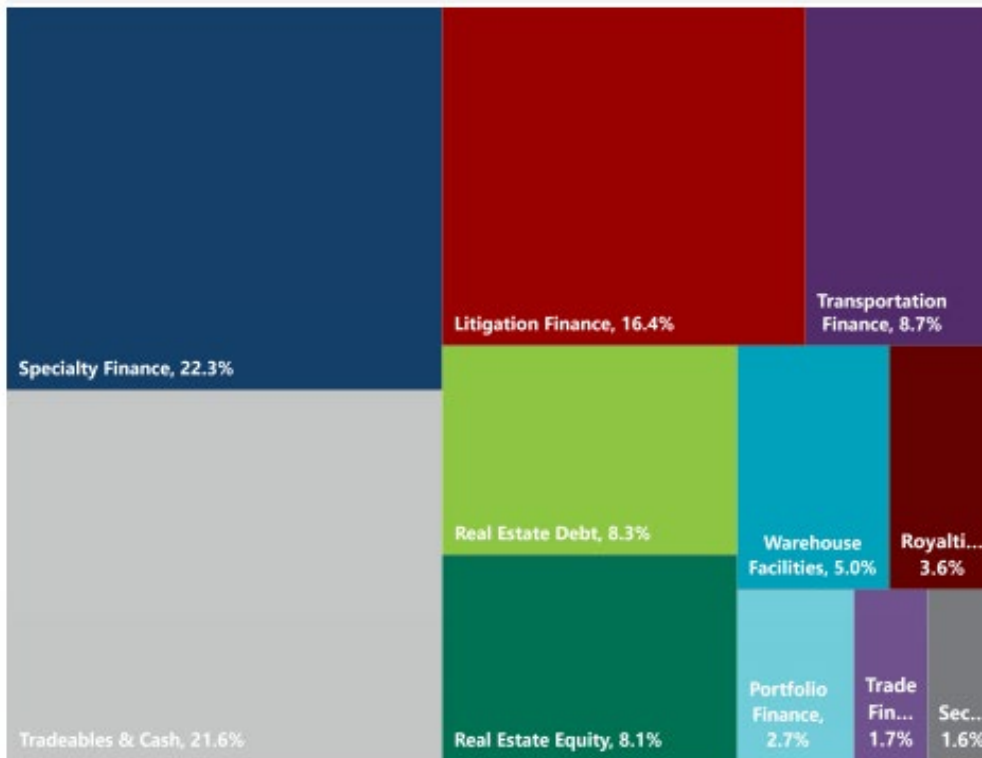
# Corporate Loans	917
% Floating Rate	99%
% First Lien	97%
Average Term to Maturity	4.2 years
Average LTV Ratio (Loan-to-Value)	45%
Average EBITDA	\$62M
Weighted Average Original Issue Discount	2%
Weighted Average Spread	LIBOR + 5.69%
Weighted Average Current Yield	6.83%

Industry Exposures: Direct & Underlying Loans

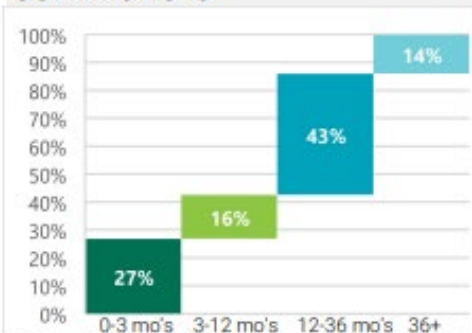


- **Expense:** 1.83% net, including leverage interest expense. (Management fee: 1.0%, Underlying managers: 0.7%)
- **Subadvisor relationships:** Subadvisors manage separate accounts. This allows for lower fees & expenses and maintains liquidity and other controls with the fund and its advisor.
- **Focus on principal protection before yield:** While the combination of market risk premiums has produced attractive returns, we favor some less risky exposures in the current environment (senior versus subordinated loans, less cyclical businesses, etc.).

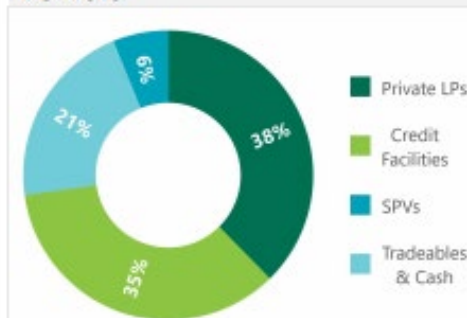
Asset class¹⁵



Commitment¹⁶



Vehicle¹⁷



Fund Overview

The Variant Alternative Income Fund offers investors efficient access to a diversified portfolio of unconventional income-generating assets. The Fund invests in niche market opportunities with strong cash flow characteristics and low correlations to public equity and bond markets. The Fund's primary objective is to provide a high level of current income. Capital appreciation will be considered a secondary objective. Variant, an innovator in alternative income investing, is led by an investment team with decades of experience investing in market niches.

Expense Ratio

2.26% net, including interest expense from leverage. (Management fee: 0.95%, Underlying managers: 1.0%, Operating expenses: capped at 0.5%)

Equity-like
returns

Bond-like
volatility

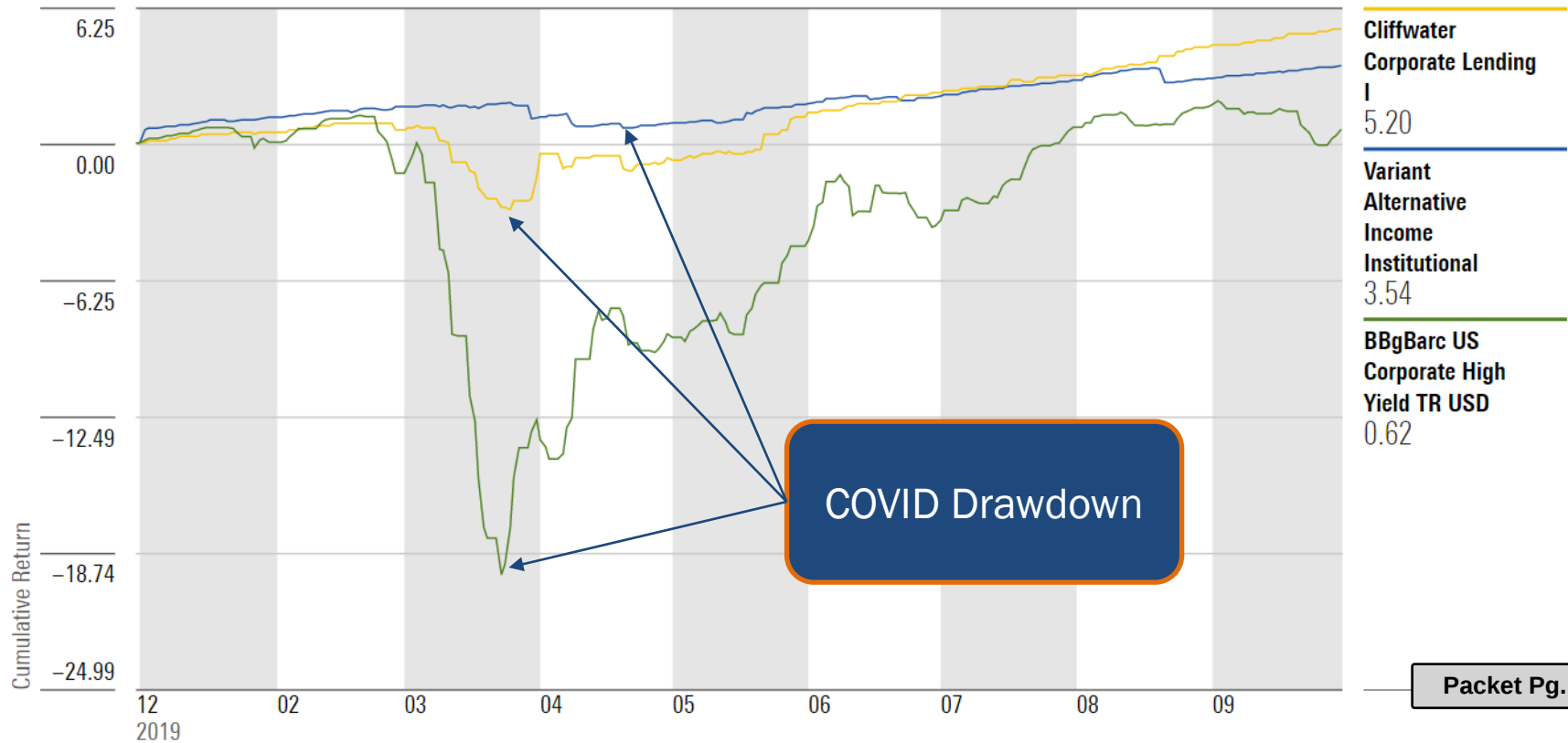
ASSET CLASS RETURN AND RISK (2004-2019)

	Return ¹	Risk ¹	Max Draw Down	Stock Beta ²
Cliffwater Direct Lending Index (CDLI)	9.55%	3.32%	-8%	0.14
Russell 3000 (US Stocks)	9.57%	15.20%	-46%	1.00
Bloomberg Barclays High Yield	7.39%	10.27%	-27%	0.52
Bloomberg Barclays U.S. Aggregate (US Bonds)	4.15%	3.23%	-3%	-0.04

Current Yield: 8.8

Current Yield: 5.8

Current Yield: 1.2



Appendix III: Definitions

Alpha is excess risk-adjusted performance relative to some benchmark index. Alpha measures the value the investment manager adds to or detracts from portfolio return.

Beta measures the tendency of a security's returns to respond to swings in the market. A beta of 1 indicates that the security's price will move with the market. A beta of less than 1 means that the security will be less volatile than the market. A beta of greater than 1 indicates that the security's price will be more volatile than the market. For example, if beta is 1.2, the security is theoretically 20% more volatile than the market.

Real return is the difference between the nominal rate of return and inflation. If the nominal return is 10% and inflation is running at 3%, the real return, adjusted for changes in purchasing power, is 7%.

Risk premium is the difference in return between a risky asset and a risk-free asset. The U.S. Treasury bill is the most common proxy for a risk-free asset. It is assumed that any risky asset will have an expected return above that of the risk-free asset, or rational investors would simply buy the risk-free asset. The greater the risk, the higher the expected risk premium.

The **Sharpe ratio** is a widely recognized measure of return earned relative to risk taken. It is calculated by subtracting the risk-free rate from the security or portfolio return, and dividing the result by the security or portfolio standard deviation.

Alternative investments refer to private equity, real assets, and hedge funds. The term is generally used to distinguish these asset classes from traditional investments in stocks and bonds.

Arbitrage is the purchase of one asset perceived as undervalued and the sale of a related asset perceived as overvalued. The strategy profits when the two assets converge to their "normal" valuations relative to one another.

Funded Status compares the value of the pension's assets (investment portfolio) to the value of the pension liability, expressed either as a percentage or dollar amount. If the assets are less than the liability, there is funded status gap, or unfunded liability, and the funded status will be less than 100%.

Pension Liability is the present value of future benefit obligations to plan participants. The two primary inputs to the calculation are the mortality/lifetime assumption of the participants and the discount rate.

Mortality/Lifetime Assumption is the projected lifetime of plan participants as calculated by the actuary. The "mortality table" is typically updated once per year.

Discount Rate is the rate used to convert future dollars into today's dollars. For example, if \$100,000 is expected to be paid out in 20 years, that \$100,000 is worth \$55,000 in today's dollars if a 3% discount rate is applied since it is assumed that the investments will appreciate over time. Varying discount rates can be used for different purposes. An "ongoing basis" discount rate is typically higher and may be used if there's no intent of annuitizing the liabilities, while the actuarial discount rate is most relevant if there are plans to annuitize the liabilities. The higher the discount rate, the lower the assumed pension liability.

Risk Transfer (Annuitization) is the process of transferring the risk and responsibility of managing the pension away from the employer by purchasing annuities that cover the future liabilities. Plan participants are typically not impacted by this.

Liability Hedging is the process of managing the duration of the pension's bond portfolio to hedge the interest rate sensitivity of the liability. Liability hedging reduces funded status risk caused by changes in interest rates (discount rates) that can meaningfully increase the value of the liabilities. If successfully hedged, the pension's bond portfolio will move in alignment with the liability.

Glide Path Management is the process of adjusting the risk level of the pension as the portfolio's funded status changes. It can be compared to a retiree nearing retirement: as a retiree nears retirement (or the pension increases its funded status), the portfolio is de-risked in accordance with the glide path.

Asset classes are groups of investment opportunities exhibiting similar characteristics. There is no universally accepted definition of an asset class. Some general characteristics of an asset class include:

- Common economic drivers
- Highly correlated with one another
- Similar risk and return characteristics
- Bottom line: similarities outweigh differences

On the following page are our asset class groups and strategies within each that we currently recommend or have recommended in the past.

We consider domestic equities and international equities distinct asset classes because of currency exposure.

Although one could argue that private equity is simply a domestic equity strategy, we consider it a separate asset class because of its illiquidity.

Note that some definitions for hedge funds are included. Hedge funds are essentially a collection of active management strategies using a wide variety of asset classes and strategies to generate alpha. We are generally interested in hedge funds that can offer returns that are uncorrelated with equity and fixed-income markets and have relatively low volatility compared to equities.

- Market capitalization is simply the value of a company or the value of its outstanding shares. Market cap is calculated as price per share times total shares outstanding.
- Below are some standard definitions for the widely utilized capitalization levels.
 - **Mega cap stocks** - Companies with a market cap of more than \$200 billion. Includes names like Apple, Microsoft, Amazon, Alphabet, Exxon, and Johnson & Johnson. The few companies that fit in this category are typically the leaders of their industries.
 - **Large cap stocks** - Market cap from \$10-\$200 billion. Many well-known companies fall into this category, which includes names like McDonald's, IBM, and Pfizer. Typically large cap stocks are considered relatively stable and secure. Both mega and large cap stocks are often referred to as blue chips.
 - **Mid cap stocks** - Ranging from \$2 billion to \$10 billion, these companies are considered more volatile than the large- and mega-caps.
 - **Small cap stocks** - Market cap from \$300 million to \$2 billion. Although their track records may not be as long as those of mid to mega caps, small caps present the possibility of greater capital appreciation—at the cost of greater risk.
 - **Micro cap stocks** - Market capitalizations from \$50 million to \$300 million fall into this category. The stock prices of these companies are quite volatile.
 - **Nano cap stocks** - Companies with market caps below \$50 million are nano caps. These companies have the highest level of risk.

			Large Cap >\$10B
			Mid Cap \$2B - \$10B
			Small Cap <\$2B
Value	Core	Growth	

- Illustrated above is a version of an equity style box made popular by Morningstar. The vertical axis is divided into the various market capitalizations as discussed on the previous page. The horizontal axis is divided into the three main investment styles: value, core, and growth.
 - **Value stocks** include those with lower than average price-to-book or price-to-earnings ratios and/or higher dividend yields.
 - **Growth stocks** are those whose earnings are expected to grow at an above average rate relative to the market or its industry. Growth stocks usually pay low or no dividends, as the company would prefer to reinvest earnings into capital projects.

International equity is ownership interests in non-U.S. corporations. International equity investment risk depends greatly upon exchange rate risk, political risk, and country-specific considerations. Generally, international equities fall into one of two broad categories—**Developed or Emerging Markets**.

International developed market stocks are found in industrialized nations. These countries are economically mature and politically stable and are therefore considered less risky. Examples include Australia, Japan, and most of western Europe.

MSCI EAFE® (Europe, Australasia, Far East) Index is a free float-adjusted capitalization-weighted index designed to measure international developed market equity performance, excluding the U.S. and Canada. As of June 2019 the **MSCI EAFE Index** consisted of the following 21 country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the U.K.

Emerging market stocks are found in nations starting to participate economically on a global scale by implementing reform programs and infrastructure improvements. A relatively large percentage of the world's population lives in these countries, though they count for a small proportion of the world's economic production. Emerging markets are characterized by political, financial system, and currency uncertainty. Examples include Brazil, Russia, India, and China.

Developed Market Country Weights (as of June 30, 2020)

46

Developed Markets:	EAFE	World	ACWI	ACWI ex. U.S.	EAFE SC
AUSTRALIA	6.73%	2.11%	1.85%	4.37%	8.35%
AUSTRIA	0.17%	0.05%	0.05%	0.11%	0.79%
BELGIUM	0.93%	0.29%	0.25%	0.60%	1.96%
CANADA		3.13%	2.75%	6.49%	
DENMARK	2.34%	0.73%	0.64%	1.52%	1.70%
FINLAND	1.01%	0.32%	0.28%	0.66%	1.44%
FRANCE	10.90%	3.41%	3.00%	7.07%	2.93%
GERMANY	9.25%	2.90%	2.55%	6.00%	5.77%
HONG KONG	3.42%	1.07%	0.94%	2.22%	2.29%
IRELAND	0.64%	0.20%	0.18%	0.42%	0.45%
ISRAEL	0.63%	0.20%	0.17%	0.41%	1.95%
ITALY	2.29%	0.72%	0.63%	1.48%	3.07%
JAPAN	25.40%	7.96%	6.99%	16.47%	31.19%
NETHERLANDS	4.32%	1.35%	1.19%	2.80%	2.22%
NEW ZEALAND	0.33%	0.10%	0.09%	0.21%	0.95%
NORWAY	0.52%	0.16%	0.14%	0.34%	2.12%
PORTUGAL	0.17%	0.05%	0.05%	0.11%	0.27%
SINGAPORE	1.11%	0.35%	0.31%	0.72%	1.99%
SPAIN	2.41%	0.76%	0.66%	1.56%	1.93%
SWEDEN	3.05%	0.96%	0.84%	1.98%	6.70%
SWITZERLAND	10.31%	3.23%	2.84%	6.68%	5.40%
UNITED KINGDOM	14.09%	4.41%	3.88%	9.14%	16.54%
USA		65.53%	57.56%		
Total	100.0%	100.0%	87.8%	71.4%	100.0%

Communication: Sunpointe Intro Meeting and CMO (Sunpointe - Implementation Update)

Emerging Market Country Weights (as of June 30, 2020)

47

Emerging Markets:	EAFE	World	ACWI	ACWI ex. U.S.	Emerging Markets
ARGENTINA			0.02%	0.04%	0.13%
BRAZIL			0.63%	1.47%	5.14%
CHILE			0.07%	0.17%	0.58%
CHINA			4.98%	11.73%	40.95%
COLOMBIA			0.02%	0.05%	0.19%
CZECH REPUBLIC			0.01%	0.03%	0.11%
EGYPT			0.01%	0.03%	0.12%
GREECE			0.02%	0.04%	0.14%
HUNGARY			0.03%	0.06%	0.23%
INDIA			0.97%	2.30%	8.02%
INDONESIA			0.18%	0.42%	1.47%
KOREA			1.41%	3.33%	11.61%
MALAYSIA			0.21%	0.51%	1.76%
MEXICO			0.21%	0.50%	1.73%
PAKISTAN			0.00%	0.01%	0.02%
PERU			0.03%	0.07%	0.25%
PHILIPPINES			0.10%	0.24%	0.84%
POLAND			0.09%	0.20%	0.71%
QATAR			0.10%	0.24%	0.83%
RUSSIA			0.39%	0.93%	3.23%
SAUDI ARABIA			0.32%	0.76%	2.66%
SOUTH AFRICA			0.46%	1.08%	3.76%
TAIWAN			1.49%	3.52%	12.28%
THAILAND			0.28%	0.65%	2.27%
TURKEY			0.06%	0.13%	0.45%
UAE			0.06%	0.15%	0.52%
Total			12.2%	28.6%	100.0%

Sources: Conway Investment Research, MSCI

A **credit spread** is the difference in yield between Treasury securities, considered risk-free, and non-Treasury securities identical in all respects except for quality rating. Corporations and other borrowers must offer a higher return on their bonds because no one else is considered as certain to fulfill its financial obligations as the U.S. federal government.

The **real interest rate** is the difference between the stated or nominal interest rate and inflation. If the nominal interest rate is 7% and inflation is running at 3%, the real interest rate would be 4%.

A **Treasury Inflation-Protected Security (TIPS)** is a U.S. Treasury-issued bond whose nominal (face) value is adjusted semi-annually to reflect changes in the Consumer Price Index (CPI). Thus, the investor's total return is the bond's coupon yield plus the rate of inflation.

Private equity investments provide financing for private firms unable or unwilling to seek funding through public equity markets. The predominant forms are:

- **Venture capital** - provides capital to emerging companies with a promising idea or innovation, often in high growth industries like technology, telecommunications, and health care.
- **Buyouts** - differ from venture capital in that the companies purchased are usually mature. Perhaps the best-known form is the leveraged buyout (LBO). An LBO involves purchasing a public or private firm and recapitalizing it with a meaningful amount of debt.
- **Distressed debt** - involves the purchase of securities or obligations of companies that are currently, or may become, insolvent. Financial, operating, economic, or market-related problems cause the securities to trade at a substantial discount to face value.
- **Mezzanine debt** - subordinated debt investments typically involved in leveraged buyouts. Mezzanine debt is the gap financing that lies between senior debt and equity in the capital structure of a portfolio company.

Special situations is a general term that includes both the distressed debt and mezzanine debt forms of private equity investing.

Real assets refers to investments in physical assets like real estate, oil & gas partnerships, timberland, and commodities. Real assets serve as a hedge against inflation, principally from income streams rising to keep pace with inflation. This provides diversification benefits because both equities and bonds tend to perform poorly during periods of unanticipated inflation.

Real estate investments typically include apartments, office buildings, industrial facilities, and retail properties.

The **capitalization rate** on real estate is the property's income divided by its value, essentially the yield on the investment. The low capitalization rates in the current market make it less likely that real estate will continue to generate the attractive returns it has in the recent past.

Real estate investment trusts (REITs) are tax-exempt corporations (pass through to investor) that receive at least 75% of their gross income from real estate transactions or real property loans. REITs offer investors a liquid, publicly-traded way to gain exposure to real estate.

Master limited partnerships (MLPs) offer tax benefits similar to those of REITs, but typically invest in energy infrastructure assets like oil and natural gas pipelines and terminals.

A **commodity** is a basic good used in commerce that is interchangeable with other commodities of the same type. Traditional examples include grains, gold, beef, oil, and natural gas. The sale and purchase of commodities is usually carried out through futures contracts on exchanges that standardize the quantity and minimum quality of the commodity being traded.

Hedge funds are specialized investment vehicles managed by investment professionals who have at their disposal a wide variety of trading techniques across virtually all types of securities.

- **Diversifying strategies** are expected to generate returns that are uncorrelated to the equity and bond markets such as long/short credit, merger arbitrage, and event driven hedge funds. Of the hedge funds, these tend to have the lowest expected return and standard deviation.
- **Long/Short Equity strategies** involve buying long positions that are expected to appreciate and selling short positions that are anticipated to fall in value. They normally offer more return potential than diversifying strategies, but also higher volatility. These strategies usually have more beta exposure than diversifying strategies – they are more likely to go up when the stock market goes up and down when the market goes down.
- **Multi-Strategy/Tactical Allocation strategies** normally invest in several underlying asset classes providing strategy diversification within a single fund. While still seeking to reduce systematic risk in the portfolio, these strategies tend to have the highest expected return and standard deviation of the of the hedge strategies. However, we still expect consistent returns with an expected standard deviation that is just over half that of global stocks.

2020 Capital Market Assumptions – Correlation Matrix | 52

Asset Class	Cash/Low Duration	US Core Fixed Income	Municipal Bonds	Investment Grade Credit	TIPS	Tactical Allocation	Diversifying Strategies	Long/Short Equity	Municipal High Yield	Preferred Securities	Global Equity	US ALL Cap/Large Cap Equity	US Mid Cap Equity	US Small Cap Equity	Intl All Cap/Large Cap Equity	Intl Small Cap Equity	Emerging Market Equity	Private Equity	Emerging Market Equity	Infrastructure	MLP	Commodities	Bank Loans	High Yield Bonds	Emerging Market Debt	Credit & Yielding Strats	Opportunistic Fixed Income	Public Core Real Estate	Private Core Real Estate
Cash/Low Duration	1.00	0.08	0.03	-0.11	0.07	0.01	0.12	0.04	-0.08	-0.15	0.02	-0.07	-0.08	-0.09	0.06	-0.03	0.15	-0.13	0.15	0.16	-0.02	0.14	-0.10	-0.12	-0.03	-0.10	0.05	-0.02	0.3
US Core Fixed Income		1.00	0.84	0.77	0.63	-0.19	0.31	-0.24	0.17	0.25	-0.14	-0.19	-0.18	-0.27	-0.11	-0.12	-0.04	-0.26	-0.04	0.10	-0.04	-0.17	-0.20	0.03	0.35	-0.09	0.97	0.09	0.9
Municipal Bonds			1.00	0.58	0.56	-0.18	0.19	-0.23	0.16	0.15	-0.14	-0.19	-0.20	-0.27	-0.11	-0.13	-0.05	-0.26	-0.05	0.03	-0.01	-0.25	-0.23	-0.01	0.33	-0.13	0.81	0.01	0.5
Investment Grade Credit				1.00	0.50	0.34	0.24	0.29	0.41	0.73	0.38	0.30	0.33	0.19	0.40	0.40	0.41	0.25	0.41	0.52	0.32	0.18	0.30	0.54	0.67	0.41	0.87	0.40	0.5
TIPS					1.00	0.14	0.10	0.05	0.45	0.06	0.06	-0.01	0.04	-0.09	0.04	0.04	0.21	-0.09	0.21	0.20	0.25	0.29	0.21	0.31	0.55	0.27	0.69	0.12	0.6
Tactical Allocation						1.00	-0.08	0.93	0.61	0.53	0.87	0.79	0.86	0.77	0.85	0.85	0.87	0.82	0.87	0.77	0.73	0.62	0.89	0.91	0.73	0.93	0.05	0.58	0.5
Diversifying Strategies							1.00	0.03	-0.08	0.15	0.05	0.04	0.06	0.02	0.05	0.05	0.04	-0.03	0.04	0.11	0.00	-0.07	-0.23	-0.13	-0.03	-0.18	0.26	0.03	0.3
Long/Short Equity								1.00	0.43	0.55	0.95	0.87	0.92	0.85	0.93	0.92	0.90	0.87	0.90	0.82	0.68	0.64	0.75	0.81	0.65	0.81	-0.01	0.56	0.9
Municipal High Yield									1.00	0.27	0.46	0.44	0.50	0.35	0.42	0.45	0.49	0.42	0.49	0.46	0.45	0.28	0.74	0.69	0.72	0.73	0.35	0.58	0.3
Preferred Securities										1.00	0.62	0.52	0.55	0.45	0.65	0.68	0.57	0.55	0.57	0.63	0.38	0.32	0.41	0.62	0.54	0.50	0.38	0.52	0.9
Global Equity											1.00	0.95	0.96	0.89	0.98	0.93	0.90	0.88	0.90	0.90	0.63	0.58	0.72	0.82	0.70	0.80	0.09	0.71	0.5
US ALL Cap/Large Cap Equity												1.00	0.97	0.92	0.88	0.82	0.75	0.89	0.75	0.81	0.64	0.48	0.68	0.76	0.59	0.75	0.02	0.75	0.9
US Mid Cap Equity													1.00	0.95	0.90	0.88	0.80	0.92	0.80	0.84	0.69	0.55	0.76	0.83	0.65	0.83	0.05	0.77	0.5
US Small Cap Equity														1.00	0.83	0.81	0.69	0.95	0.69	0.74	0.61	0.44	0.66	0.73	0.52	0.73	-0.06	0.77	0.6
Intl All Cap/Large Cap Equity															1.00	0.96	0.90	0.84	0.90	0.90	0.56	0.56	0.67	0.78	0.68	0.75	0.10	0.66	0.3
Intl Small Cap Equity																1.00	0.87	0.86	0.87	0.83	0.53	0.55	0.69	0.78	0.68	0.75	0.09	0.63	0.8
Emerging Market Equity																	1.00	0.72	1.00	0.84	0.57	0.62	0.72	0.80	0.78	0.78	0.18	0.54	0.3
Private Equity																		1.00	0.72	0.71	0.61	0.44	0.73	0.79	0.56	0.78	-0.05	0.72	0.5
Emerging Market Equity																			1.00	0.84	0.57	0.62	0.72	0.80	0.78	0.78	0.18	0.54	0.3
Infrastructure																				1.00	0.61	0.61	0.62	0.75	0.70	0.72	0.30	0.71	0.0
MLP																					1.00	0.56	0.64	0.73	0.57	0.73	0.15	0.45	0.7
Commodities																						1.00	0.58	0.58	0.47	0.61	-0.01	0.32	0.9
Bank Loans																							1.00	0.92	0.72	0.97	0.04	0.59	0.6
High Yield Bonds																								1.00	0.85	0.98	0.28	0.68	0.5
Emerging Market Debt																									1.00	0.80	0.57	0.61	0.1
Credit & Yielding Strats																										1.00	0.16	0.65	0.4
Opportunistic Fixed Income																											1.00	0.26	0.9
Public Core Real Estate																												1.00	1
Private Core Real Estate																													0

Communication: Sunpointe Intro Meeting and CMO (Sunpointe - Implementation Update)

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Sunpointe Market Environment Report Q4 2020

- I. Market Environment Summary
- II. Economic Outlook
- III. Asset Class Rankings
- IV. Capital Market Assumptions

I. Market Environment Summary

- ❑ Nonfarm payrolls increased by 1.37M in August and the unemployment rate tumbled to 8.4% as the U.S. economy continued to climb its way out of the pandemic downturn. This marked the fourth consecutive month of record job gains and the unemployment rate fell to its lowest point since the March COVID shutdown.
 - An alternative measure that includes discouraged workers and those holding part-time jobs for economic reasons also fell, down to 14.2% from 16.5% in July and 22.8% at the peak in April.
 - Hiring within the federal (census workers) and state and local government levels boosted the jobs total by nearly 450k. Those on furlough and temporary layoff also declined sharply from July to August. The U.S. economy has still lost over 10M jobs since the pandemic began in March, but a lot of progress has been made over the past 4 months and most economists believe labor markets have proved to be more resilient than expected.
 - Wages rose 4.7% Y/Y, but comparisons are less meaningful given the large numbers moving around and the composition of the job additions.
- ❑ The ISM Manufacturing Index rose from 54.2 in July to 56.0 in August, led by strength in new orders, production and employment. The gauge on employment showed strength, but still remains in contraction territory. Demand and consumption continued to drive the expansion in activity during August, but manufacturing companies remain cautious on capital spending plans for the remainder of 2020.
- ❑ The ISM Services PMI fell slightly last month, albeit from a very strong level. The August reading of 56.9 was down from 58.1 in July with most of the weakness coming from new orders and production. Employment strengthened along with exports and prices. Service companies cited solid pickup in activity, but also caution over ongoing pandemic uncertainties and supply disruptions.
- ❑ Q2 earnings largely came in much better than expected versus very pessimistic analyst estimates (-32% vs. -44%). As a result, analysts have begun raising estimates for Q3. Expectations are for a 22.4% decline in S&P 500 earnings for Q3, up slightly from the -25.4% estimate on June 30th. Tech, materials, consumer discretionary and financials are the main sectors seeing upward revisions.
 - For 2020, the analyst community expects earnings to decline 18.5% with revenues falling about 3%. Earnings growth in 2021 forecast to be 26.3% with revenue growth of 8.1%. Assuming these estimates hold, earnings in the S&P 500 would end 2020 (\$166) close to where they ended 2019 (\$163).

- ❑ After collapsing 32% during Q2, U.S. GDP is projected to surge higher by nearly 30% on an annualized basis. A rebound in consumer spending expected to account for nearly 73% of Q3 growth with smaller contributions coming from government spending, inventory restocking and residential investment. Q3 estimates are in the range of 25-35% growth.
- ❑ GDP fell 12.1% Q/Q in the eurozone during Q2 and economists expect 10% growth in Q3. The consumption tax hike continues to hold back growth in Japan based on the latest Q3 GDP growth estimate of just 3.9%.
- ❑ Countries like the U.K. (+17%) and India (+16.5%) are expected to see significant jumps in growth during Q3.
- ❑ When examining the economic and earnings growth picture across the developed world, we continue to believe the U.S. offers a more compelling case. Economic growth is forecast to fall far less in 2020 while rebounding at a similar clip in 2021.
 - U.S. earnings have routinely eclipsed those in Europe and Japan since the financial crisis and similar results are projected for this year and next. For example, earnings in the European STOXX 600 are projected to decline 35% in 2020, but rebound 39% in 2021.
 - We also note that the U.S. routinely outperforms expectations while Europe appears to underperform already pessimistic expectations.
- ❑ The eurozone recovery may already be losing some of its momentum based on the latest PMI readings. The September IHS Markit Composite PMI fell to 51.9 in August from 54.9 in July. Manufacturing activity picked up in August, but the rate of growth in the service sector eased sharply. All of the major European countries showed slower rates of growth in activity last month led by France and Spain which hit 3-month lows.
 - Although manufacturing has gathered a bit of steam, the weaker than anticipated service sector data potentially points to an economy that has already started to fade.
- ❑ Low/falling correlations and high or rising dispersion should lead to opportunities for active management. It is no secret that active management has been challenged over the past 12 years since the financial crisis, but could we be seeing the tide turning as a result of the COVID pandemic? Outflows remain persistent across equities, specifically across actively managed funds in favor of passive investing.

- ❑ Growth stocks have handily outperformed value stocks across developed and emerging markets in recent years, but leadership differs between U.S. and non-U.S. markets.
 - A handful of tech, discretionary and communication services companies have fueled the 2020 market rally in the U.S., leading to huge outperformance of market cap indices versus equal-weighted ones. This phenomenon is not true outside the U.S. where equal-weighted and market cap weighted indices have performed in a similar fashion. The return difference between the top and bottom performing sectors in the S&P 500 this year is the largest since the tech bubble burst in 2000. There is currently a 78% gap YTD in returns between technology and energy companies.
- ❑ The S&P 500 has been a great indicator of Presidential elections three months out. During the period from 1937-2017, the S&P 500 on average has been positive over the 1 and 3-month periods leading up to an election where the incumbent won, whereas they were negative in the lead up to an election lost by the incumbent. Markets hate uncertainty, which can be caused by a new administration.
- ❑ Markets also generally favor divided government because nothing significant can get accomplished. We do note that a Republican president with a Democratic Congress has been the worst possible scenario for the S&P 500 since 1945.

- ❑ Global equities are expensive, but we continue to believe they are attractive relative to fixed income and other risk assets.
- ❑ We continue to favor U.S. and EM equities over other developed markets which are struggling with subpar economic and earnings growth.
 - Within U.S. equities, our bias is towards large caps and growth/tech stocks. We recognize mean reversion may occur at some point towards value, but in our opinion, the underlying exposures in value benchmarks are not compelling.
 - The weaker U.S. dollar should benefit multinationals and non-U.S. equities.
- ❑ Core fixed income and munis need to be the principal protection anchor of a diversified portfolio, regardless of the interest rate/yield environment.
 - Credit spreads have tightened substantially since March and sit near historical averages. Our outlook for credit is more neutral today as we recognize the potential for higher defaults/bankruptcies moving forward.
 - Fixed income outside the U.S. remains unattractive to us outside of the limited currency play. Non-U.S. assets/bonds have benefited over the past few months from U.S. dollar weakness.
 - EMD looks more compelling than sovereign bonds from Europe and Japan. We prefer to take risk in EM equities over bonds as spreads have really tightened within the asset class.
- ❑ Hedge funds did a great job protecting capital during the March drawdown and many funds have posted very solid performance in 2020. Manager/fund selection is crucial as performance dispersion is high. Multi-strategy has been the star performer along with some niche fundamental L/S funds.
- ❑ Private markets continue to look compelling based on the increased COVID opportunity set. Fundraising and transaction activity remain depressed YTD, but there is a ton of dry powder available and activity should improve based on the economic recovery.
- ❑ MLPs and commodities should continue to struggle due to supply/demand imbalances and the lack of coordinated global growth/inflation.

- ❑ REITs and private real estate remain challenged despite the rebound in economic growth forecast for the second half of 2020. Certain sectors will be winners while others like retail/malls will be clear losers.
- ❑ Listed infrastructure remains undervalued versus global equities and the asset class benefits from income and capital appreciation. Certain infrastructure sectors like airports and toll roads have struggled since the start of the pandemic.
- ❑ We expect to see higher volatility around the election based on news flow and the state of the race. Elevated volatility should also be expected until an outcome is decided. Volatility was higher during the contested election of 2000.
- ❑ We continue to believe patient rebalancing is necessary as sentiment and markets change quickly. History has shown that maintaining a long-term focus is the best plan during an election year.
- ❑ It is important to note that our Asset Class Rankings are designed to be a 6-12 month outlook.

	Daily Change	Weekly Change	MTD	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Fixed Income Indices									
Barclays U.S. Treasury Bill 1-3 Month	0.00%	0.00%	0.01%	0.03%	0.52%	0.96%	1.60%	1.13%	0.59%
Barclays Municipal	-0.12%	-0.10%	0.02%	1.23%	3.33%	4.09%	4.28%	3.84%	3.99%
Barclays U.S. Aggregate	-0.15%	-0.12%	-0.05%	0.62%	6.79%	6.98%	5.24%	4.18%	3.64%
Barclays U.S. High Yield	0.29%	0.18%	-1.03%	4.60%	0.62%	3.25%	4.21%	6.79%	6.47%
S&P/LSTA Leveraged Loan	-0.06%	-0.42%	0.63%	4.14%	-0.66%	1.06%	3.10%	4.01%	4.28%
Barclays Global Aggregate	-0.04%	0.07%	-0.36%	2.66%	5.72%	6.24%	4.10%	3.92%	2.36%
JPM GBI EM Global Diversified	0.66%	-0.03%	-2.02%	0.61%	-6.32%	-1.45%	0.17%	4.78%	0.52%
U.S. Equity Indices									
DJ Industrial Average	1.20%	3.81%	-2.18%	8.22%	-0.91%	5.70%	9.98%	14.02%	12.69%
S&P 500	0.83%	3.92%	-3.80%	8.93%	5.57%	15.15%	12.28%	14.15%	13.74%
NASDAQ Composite (Price)	0.74%	5.03%	-5.16%	11.02%	24.46%	39.61%	19.79%	19.31%	16.77%
Russell 1000	0.81%	3.96%	-3.65%	9.47%	6.40%	16.01%	12.38%	14.09%	13.76%
Russell 1000 Growth	0.84%	4.85%	-4.71%	13.22%	24.33%	37.53%	21.67%	20.10%	17.25%
Russell 1000 Value	0.77%	2.99%	-2.46%	5.59%	-11.56%	-5.03%	2.63%	7.66%	9.95%
Russell Mid Cap	0.51%	3.54%	-1.95%	7.46%	-2.35%	4.55%	7.13%	10.13%	11.76%
Russell 2500	0.39%	3.59%	-2.59%	5.88%	-5.82%	2.22%	4.45%	8.97%	10.81%
Russell 2000	0.20%	3.93%	-3.34%	4.93%	-8.69%	0.39%	1.77%	8.00%	9.85%
Russell 2000 Growth	0.14%	3.83%	-2.14%	7.16%	3.88%	15.71%	8.18%	11.42%	12.34%
Russell 2000 Value	0.28%	4.04%	-4.65%	2.56%	-21.54%	-14.88%	-5.13%	4.11%	7.09%
Non-U.S. Equity Indices									
MSCI World	0.33%	2.77%	-3.41%	8.05%	2.12%	10.99%	8.33%	11.10%	9.99%
MSCI ACWI	0.44%	2.48%	-3.19%	8.25%	1.77%	11.00%	7.68%	10.90%	9.13%
MSCI ACWI Ex-U.S.	-0.08%	0.41%	-2.42%	6.36%	-5.08%	3.45%	1.65%	6.74%	4.48%
MSCI EAFE	-0.67%	0.24%	-2.55%	4.88%	-6.73%	0.93%	1.11%	5.77%	5.11%
MSCI EAFE Growth	-0.81%	0.14%	-0.63%	8.48%	4.91%	13.81%	7.47%	9.64%	7.36%
MSCI EAFE Value	-0.53%	0.35%	-4.53%	1.30%	-17.91%	-11.45%	-5.30%	1.74%	2.68%
MSCI Europe	-0.20%	0.80%	-3.32%	4.58%	-8.42%	-0.27%	-0.01%	4.86%	4.88%
MSCI Japan	-1.72%	-0.61%	1.11%	7.08%	-0.33%	7.31%	4.32%	7.90%	6.51%
MSCI AC Asia	0.03%	-0.05%	-0.50%	9.34%	3.32%	13.76%	4.94%	9.64%	6.13%
MSCI EAFE Small Cap	-0.06%	1.51%	-0.69%	10.34%	-3.90%	7.21%	1.78%	7.77%	7.71%
MSCI ACWI Ex-U.S. Small Cap	0.08%	1.32%	-1.22%	10.61%	-3.34%	7.36%	1.32%	7.20%	5.70%
MSCI Emerging Markets	1.24%	0.45%	-1.56%	9.70%	-0.91%	10.91%	2.79%	9.37%	2.87%
MSCI EM Asia	1.24%	0.46%	-1.10%	12.07%	8.27%	21.90%	6.02%	11.67%	5.80%
MSCI China	2.27%	0.87%	-2.73%	12.57%	16.80%	33.76%	8.03%	13.72%	6.78%
MSCI EM Eastern Europe	1.50%	-0.55%	-8.11%	-3.92%	-27.44%	-16.74%	-0.03%	7.94%	-0.01%
MSCI EM Latin America	1.47%	-0.21%	-5.11%	-1.23%	-35.91%	-29.12%	-11.53%	2.40%	-5.45%
MSCI EM Small Cap	0.60%	0.16%	-1.62%	12.04%	-2.12%	7.28%	-0.73%	4.85%	1.34%
MSCI Frontier Markets	0.06%	-1.85%	0.75%	8.42%	-8.61%	-2.54%	-1.45%	4.09%	3.32%

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U.S. Equities – U.S. equities posted solid, but volatile gains in Q3. Valuations are expensive, but they are more compelling than bonds. U.S. corporate earnings outpaced pessimistic analyst expectations, and as a result, estimates have been revised higher. S&P 500 earnings are forecast to decline 18% in 2020, but that is higher than just a few months ago, and they are projected to surge 25% in 2021. We believe economic and earnings growth has rebounded sharply over the past months, but there is risk on the horizon with the November election and a potential resurgence of COVID. Volatility has remained stubbornly high since March that should continue as the election will likely be close and contested. The Fed continues to provide massive stimulus, but fiscal support from Washington is not an end assuming there are no additional COVID aid packages passed. Multiples are expensive based on any earnings rebound scenario, but we believe the U.S. is resilient and there is room for an upside surprise. Our outlook is a bit more upbeat as the country entered the crisis on solid footing and we recognize that you want to fight the Fed which is pumping a massive amount of stimulus into the economy/markets. We think active management is crucial in today's uncertain environment and we have a bias towards large caps and specifically growth/tech stocks that have benefited from the pandemic.
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Non-U.S. Developed Equities – Non-U.S. developed markets posted solid gains in Q3, aided by dollar weakness. Our outlook for Europe and Japan remains neutral because their economic/earnings growth routinely lags the U.S. and it already appears as if their economic recoveries are losing steam. While valuations are cheap relative to the U.S., they are expensive and we have caution over the COVID resurgence in Europe and the resignation of Shinzo Abe as Japan's prime minister. We continue to believe the U.S. offers a more compelling case in terms of economic and earnings growth (European STOXX 600 earnings should fall 35% in 2020). Japan continues to be impacted by its 2019 sales tax hike and we ultimately believe that EAFE countries routinely underperform already pessimistic economic/earnings growth expectations. As always, we stress the importance of active management.
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Emerging Market Equities – EM equities were one of the best performing asset classes in Q3, boosted by currency and strong gains from China. Similar to the most EMs entered the crisis with stronger expectations for economic and earnings growth. GDP growth figures have been trimmed, but the declines forecast for 2020 are shallower than the developed world, especially across Asia. Earnings estimates are also expected to fall far less than developed markets as many countries in Asia never shut down or have had better success dealing with COVID. The huge amount of monetary and fiscal stimulus sloshing around the globe should continue to find a home in risk assets like EMs that present a compelling growth story. The weaker dollar has been a big tailwind for the past few months and that should continue as investors deal with increased uncertainty over U.S. politics and COVID developments. As always, active management is crucial to pick among winning and losing countries, sectors and companies within EMs.
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REITs – REITs lagged other risk assets in Q3 despite the supportive low interest rate environment. REITs traded at a big discount in March, but the strong Q2 combined with falling NAVs has caused them to trade at an 8% premium. Valuations are expensive and we remain cautious as the impact from COVID plays out with unemployment and real estate. As stimulus expires, there are still 10M+ people out of work and many businesses have closed. Interest rates are supportive, but we believe there will be bifurcation among property sectors with winners in areas like industrial, data centers and cell towers, and losers across retail, residential and office.
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Infrastructure/MLPs – Listed infrastructure (neutral) gained ground in Q3, but has not fully participated fully in the 2020 market rebound (-19% YTD). We think listed infrastructure companies continue to offer essential services, monopolistic businesses and attractive/safer yields. These are often higher quality businesses that should be well positioned to benefit from the global economic rebound. MLPs (negative) lost ground during Q3 and are down nearly 50% YTD. Energy market is oversupplied despite massive cuts, and this should lead to distribution cuts for MLPs and increased counterparty risk (LT contract impairment) from oil/gas producers that face increased default/bankruptcy risk. MLPs are cheap, but we believe the risks far outweigh the reward.

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U.S. Core Fixed Income – Treasury yields were rangebound during Q3, but gains in corporate and securitized credit pushed the Barclays Agg slightly higher. What during the pandemic drawdown (underweight Treasuries, overweight riskier credit) has been very beneficial during the market rebound. Spreads continue to tighten across all areas of fixed income, and the combination of low yields and increased duration risk makes the asset class fairly unattractive. Rates should remain low longer based on the Fed's new inflation policy, recent dot chart, and QE/stimulus programs that are targeting credit markets to support prices and ensure proper market functioning. Active management is very important across fixed income to avoid the potential defaults/landmines in credit and to allocate into other quality sectors offering yield advantages like corporate credit (also being boosted by the Fed). We continue to stress our thesis that core fixed income is primarily protection first and yield/income second.
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High yield/Floating Rate/Opportunistic Fixed Income – Credit markets moved higher in Q3 with strong gains in riskier high yield and floating rate loans, touching 1,100 bps over Treasuries at one point during the heart of the crisis, spreads in HY and loans have tightened to around 500-550 bps today. The Fed continues to support credit markets through various targeted asset purchase programs, but we believe most of the low hanging fruit is now gone in corporate credit. Spreads can certainly tighten further and there should be an increased distressed opportunity set as government support programs end. Technicals (issuance/flows) have been positive over the past two quarters, but default rates have also ticked higher. Securitized credit like MBS/CMBS has not rebounded like corporate credit, and that could be an area of opportunity, caution is warranted as real estate markets are challenged and prepayment risk has risen. Given the rebound in credit, we believe active management is more important to pick winners and avoid potential landmines. Our preference is to play this theme through an opportunistic income manager with a well-resourced team.
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Municipal Bonds – Munis continued to benefit from improved technicals during Q3 that resulted in gains of 1.3%. After experiencing sharp outflows during the CDO market selloff in March, munis have seen 19 straight weeks of asset inflows. Issuance has also improved with announced Fed support for the muni market and the need for capital to bridge budget gaps with state/local governments that are stressed due to the pandemic and lower tax revenue. Valuations are still competitive across munis (vs comparable Treasuries) with the 10-Year muni-to-Treasury ratio sitting at about 110% (peaked above 320% in March). Many of the dislocations have disappeared, but they could reappear if Washington fails to provide needed aid to problematic states. Similar to core fixed income, munis should be viewed as a principal protection anchor of a diversified taxable portfolio. We continue to like high yield munis that offer diversification, higher potential yield and idiosyncratic opportunities.
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Non-U.S. Developed Fixed Income - Our negative ranking highlights the unattractiveness of yields/bond prices in developed markets outside the U.S. Economic growth across Europe is forecast to decline sharply in 2020 (off of a low base) and corporate earnings are also expected to take a large hit. Yields are low, duration is high, and QE from the ECB/BOE/BOJ will keep yields firmly in negative territory. Unimpressive fiscal stimulus will put further stress on already strained budgets/deficits and local currencies. We don't see any reason to invest in non-U.S. developed bonds since the U.S. is healthier with deeper markets and more attractive yields.
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Emerging Markets Debt – EMD eked out a small gain during Q3 (boosted by currency), but remains down around 6% YTD. Similar to all risky credit, EMD spreads tightened in March, but have largely recovered since. We believe EMs entered the COVID crisis on stronger footing in terms of economic and earnings growth projections (except for a few problematic countries like Brazil & India), so we think the economic/earnings picture should hold up better for EMs versus DMs. EM assets have a boost from Fed stimulus (targeted credit programs) and the weaker USD, and that should continue with growing uncertainty over the U.S. election and continued Fed/central bank support. We prefer to allocate to EMD through an active, opportunistic mandate as there are many moving parts at the country/sector/sector level. Also, our preference is to take risk in EM equities over EMD.

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Hedge Funds – Hedge funds have delivered solid gains in 2020 with particularly strong capital protection during the March COVID drawdown. As expected, hedge funds have failed to keep pace during the Q2-Q3 market rebound. We continue to believe manager/fund selection is crucial given the significant performance dispersion across the asset class and the higher volatility, dynamic market environment that should lead to increased long and short opportunities across equities, credit, commodities and currencies. Multi-strategy has been the star performer in 2020, delivering positive performance during the market selloff and many funds posting 5-14% returns YTD. Uncertainty over the November election, COVID and the U.S./global economy should lead to elevated volatility across most asset classes and a compelling distressed opportunity set. One concern we have is central bank stimulus which has led to a rising tide for both high- and low-quality businesses. Increased dispersion and falling correlations should also provide a boost to active managers that can pick higher quality winners from lower quality, vulnerable pandemic losers. We continue to like the low beta, market neutral exposure from multi-strategy funds along with their diversification benefits, strong management and tail risk hedging. Multi-strategy continues to be a good alternative and/or complement to traditional fixed income. Performance dispersion is particularly wide amongst L/S managers, but our preference for smaller, niche fundamentally-driven funds has yielded good results in 2020, and systematic risk should rebound after what we hope has been a brief, challenging period.
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Private Markets – Performance and price discovery continues to be a challenge due to diminished activity across certain parts of private markets. Fundraising activity and transaction volume/value has slowed dramatically (except for venture capital) since the start of the year and we believe the outlook remains fairly subdued while considering the challenging economic/market environment. Large, well established firms, SPACs, and VC funds have driven most of the fundraising activity YTD, and a large percentage of transactions have been focused on tech companies benefiting from COVID. Quarterly marks have likely improved with the market rebound but some negative revisions should be expected depending on the sector/industry and overall market sentiment. While the amount of dry powder available remains a concern, demand is high for private markets given its attractive long-term characteristics and performance. The opportunity set remains compelling and our preference continues to be towards smaller, niche funds, but we recognize that some larger funds/deals could present themselves as a result of the pandemic.
- 

Real Estate – Private real estate faces uncertainty as COVID continues to impact the U.S./global economies. Q2 NCREIF returns were negative for the first time since the financial crisis, largely due to negative capital returns in hotels and retail. Transactions are depressed and there have been far more write-downs than write-ups. There will clearly be winners and losers by property type with particular vulnerability in areas like retail, restaurants and hotels. Sectors like industrial, data centers and cell towers will continue to see tailwinds from structural demand changes. Cap rates fell slightly during Q2 to approximately 4.6% (well below historical averages) but most of that was due to rents/income falling more than property values. The spread between cap rates and the 10-year Treasury yield also remains attractive. The interest rate backdrop is quite favorable for real estate, but we recognize there is a great deal of uncertainty over the economy and business environment that could lead to some second- and third-degree impacts to real estate markets. As the dust settles, it could be a good time for private real estate managers to put some of their dry powder to work.
- 

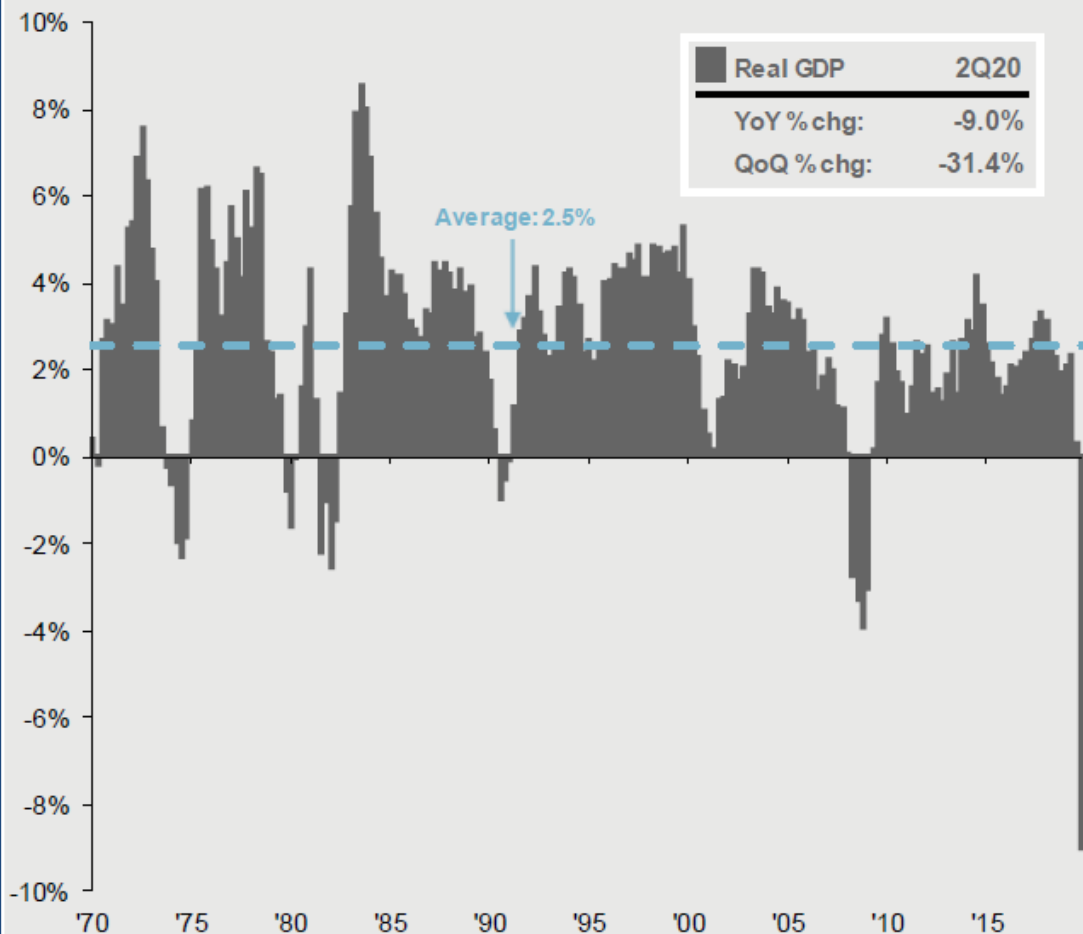
Commodities – We continue to think commodities are unattractive as an asset class based on continued supply/demand imbalances and uncertainty over global economic growth and inflation. Oil/energy markets have stabilized over the past few months, but supply far outweighs weak demand. Significant production from OPEC and some North American shale producers has failed to bring markets back in balance. Precious metals have benefited from massive central bank stimulus, low interest rates, economic uncertainty, and safe haven status, but sentiment can change quickly. All other commodity sectors are negative YTD and over all historic time periods. Global growth should pick up in the second half of 2020, but inflation expectations remain muted and economic activity could quickly reverse course if the pandemic deteriorates. Overall, the outlook for commodities doesn't look compelling.

Economic Growth and GDP Composition

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Real GDP

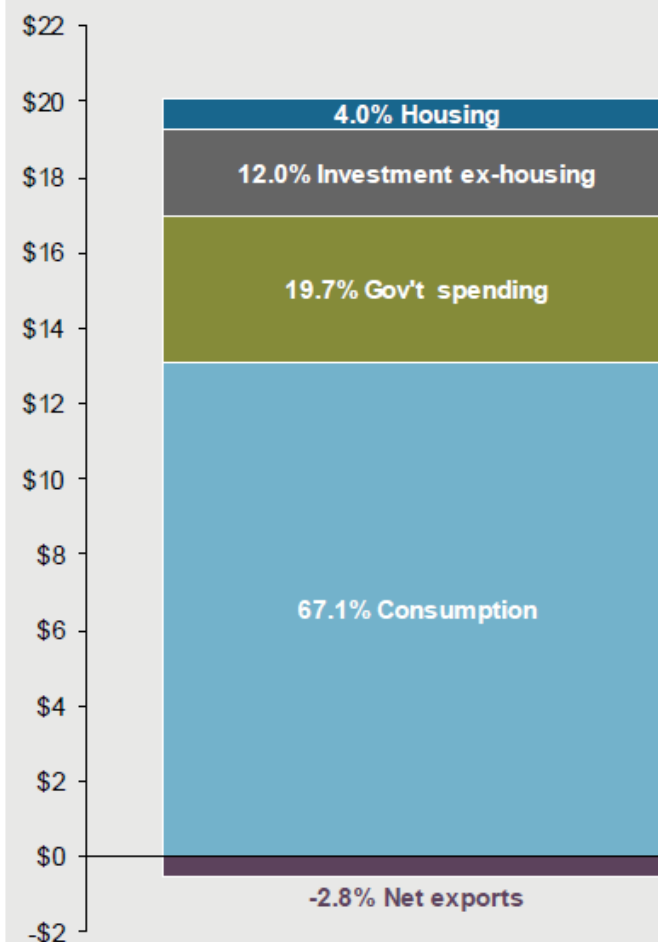
Year-over-year % change



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

Components of GDP

2Q20 nominal GDP, USD trillions

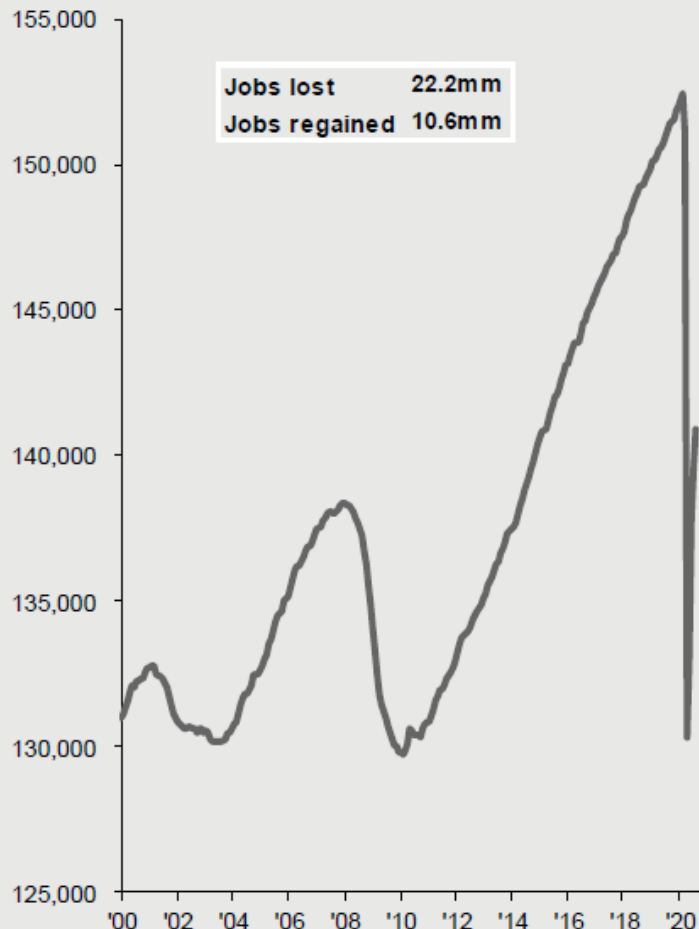


Hindering GDP is that consumption drives nearly 70% of the economy, and with many service-oriented businesses only reopened partially, and with high unemployment reducing households' ability to spend, the engine of the economy impaired. Some areas of the economy, however, like housing and autos, have been able to rebound strongly, while others, like hospitality and leisure, may continue to struggle until there is a vaccine.

Employees on total nonfarm payrolls

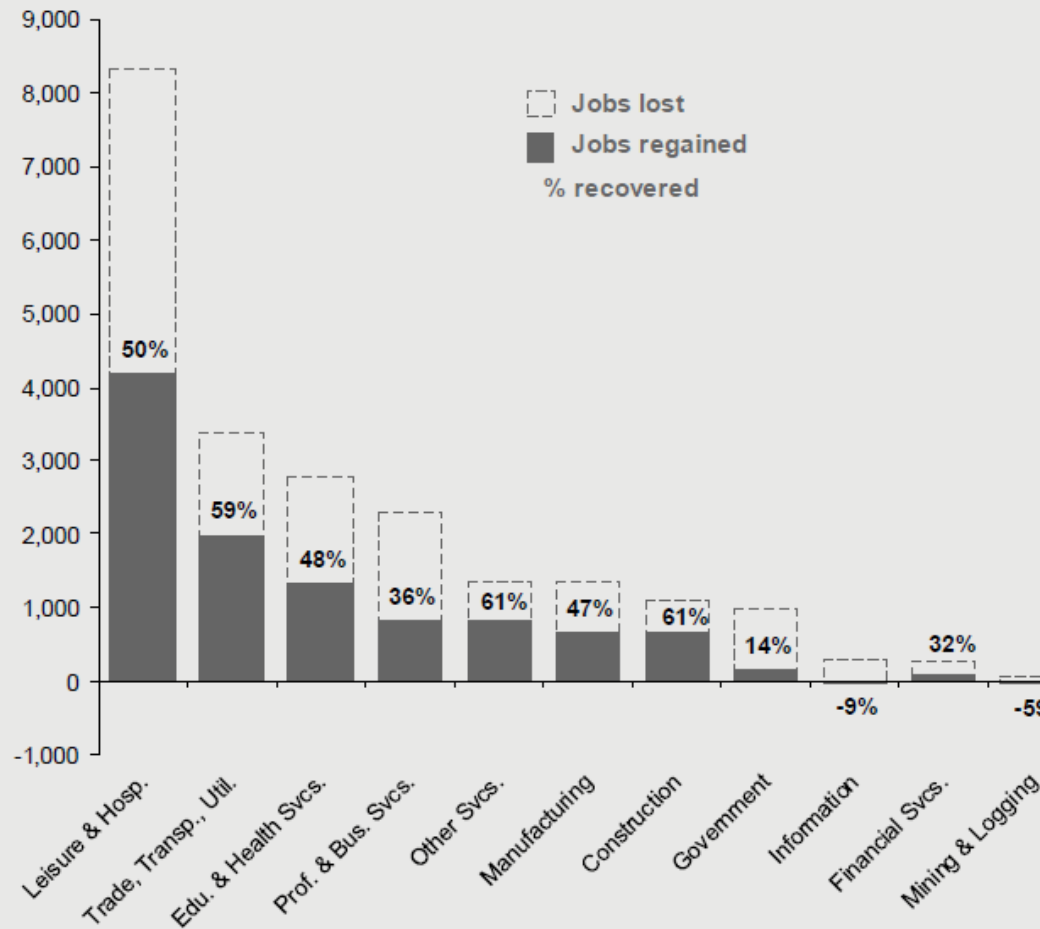
Thousands

Jobs lost 22.2mm
Jobs regained 10.6mm



Payroll employment lost and regained by industry

Thousands, % recovered

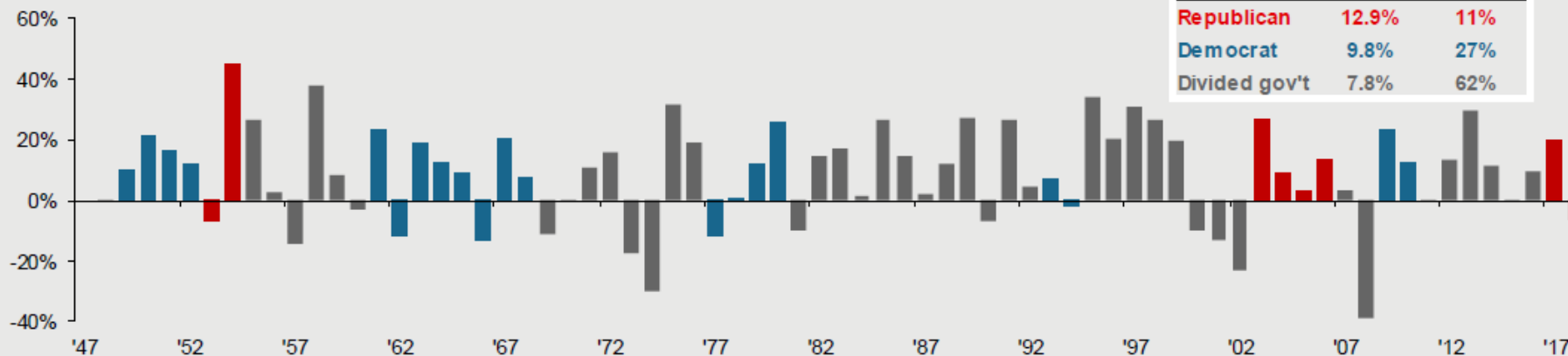


Source: Bureau of Labor Statistics, J.P. Morgan Asset Management. Jobs lost from February 2020 to April 2020, job regained from April 2020 to present.

After reaching a 50-year low in February of 3.5%, the unemployment rate spiked to 14.7% in April, as 22 million people lost their jobs. Although there has been a sharp recovery in jobs thus far, the second half of the labor market recovery is likely to be much slower.

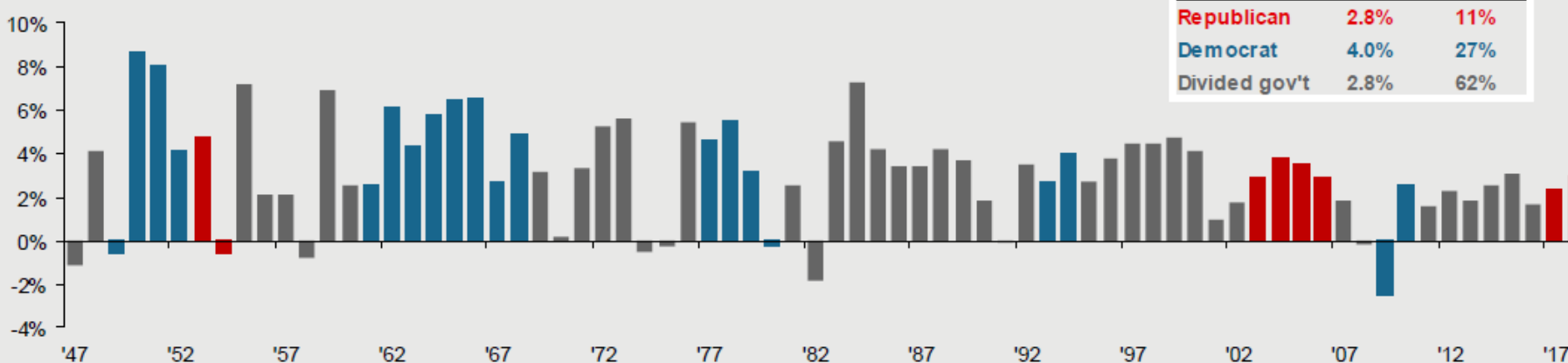
S&P 500 Price Index

Calendar year returns



Real GDP

Year-over-year % change, annual



Source: FactSet, Office of the President, J.P. Morgan Asset Management; (Top) Standard & Poor's; (Bottom) Bureau of Economic Analysis. Top chart shows S&P 500 price returns.

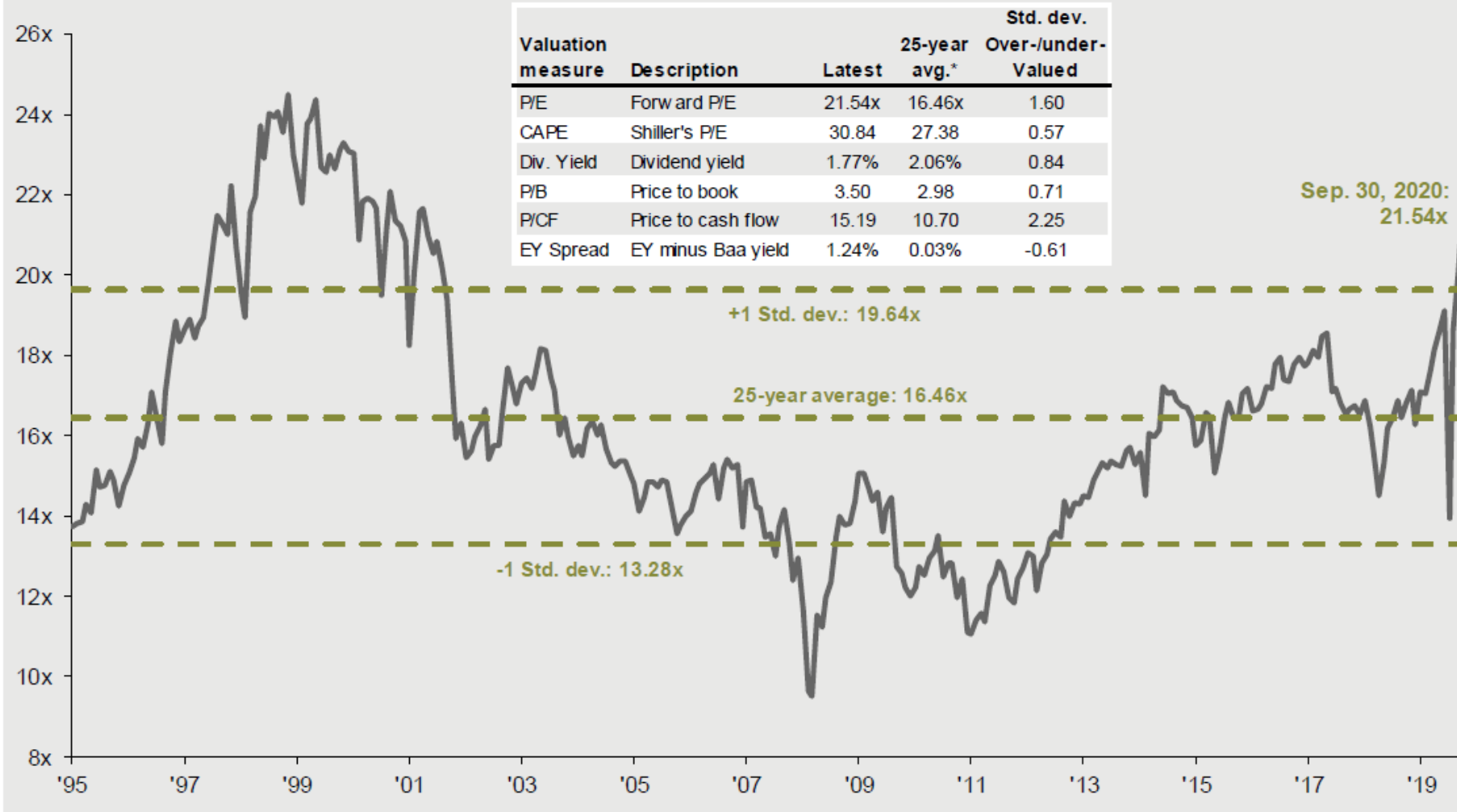
Markets are likely to experience increased volatility around the upcoming November election. That is because markets do not like uncertainty, but the outcome of an election reduces uncertainty. Even if we do not have results on Election Day, the interim volatility or the eventual outcome should not disrupt investment plans because markets rely on fundamentals, not politics. And investment time horizons extend far beyond election cycles or presidential administrations.

S&P 500 Valuations Versus LT Averages

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As of 9/30/2020

S&P 500 Index: Forward P/E ratio



Source: FactSet, FRB, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management.

Communication: Sunpointe Market Environment Report 20Q4 (Sunpointe - Capital Markets)

Valuations above average, except relative to fixed income—equity risk premium remains attractive.

Packet Pg. 69

Investments

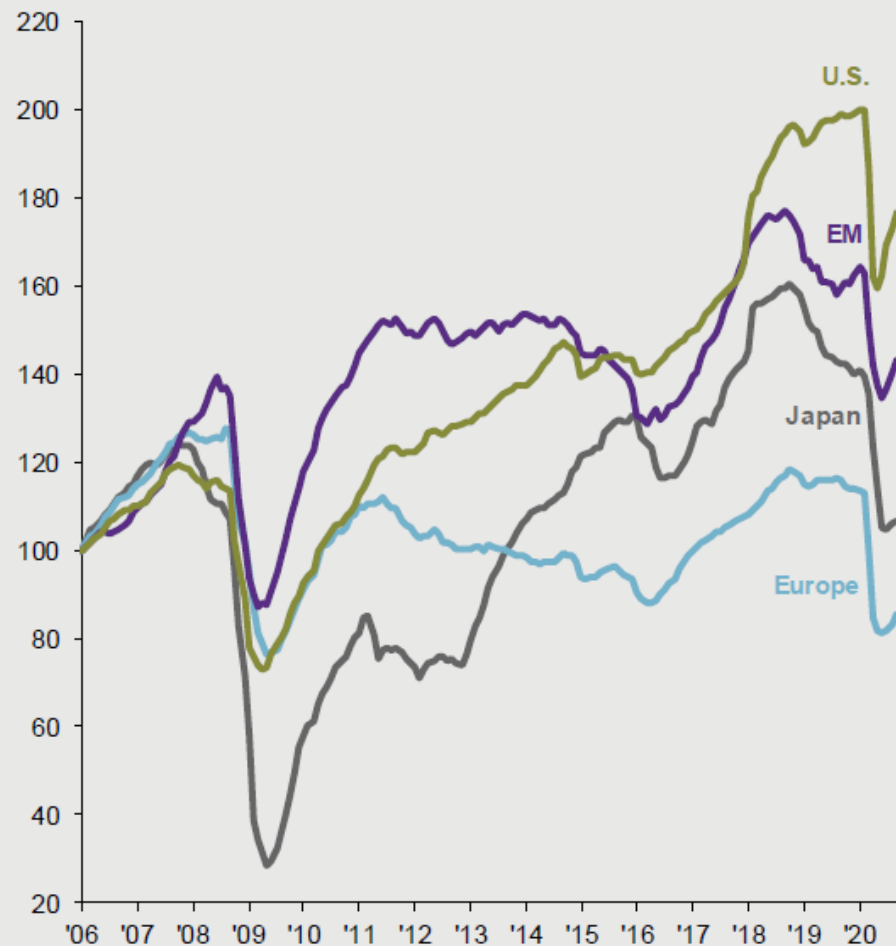
Comparative Valuations and Earnings

16

As of 9/30/2020

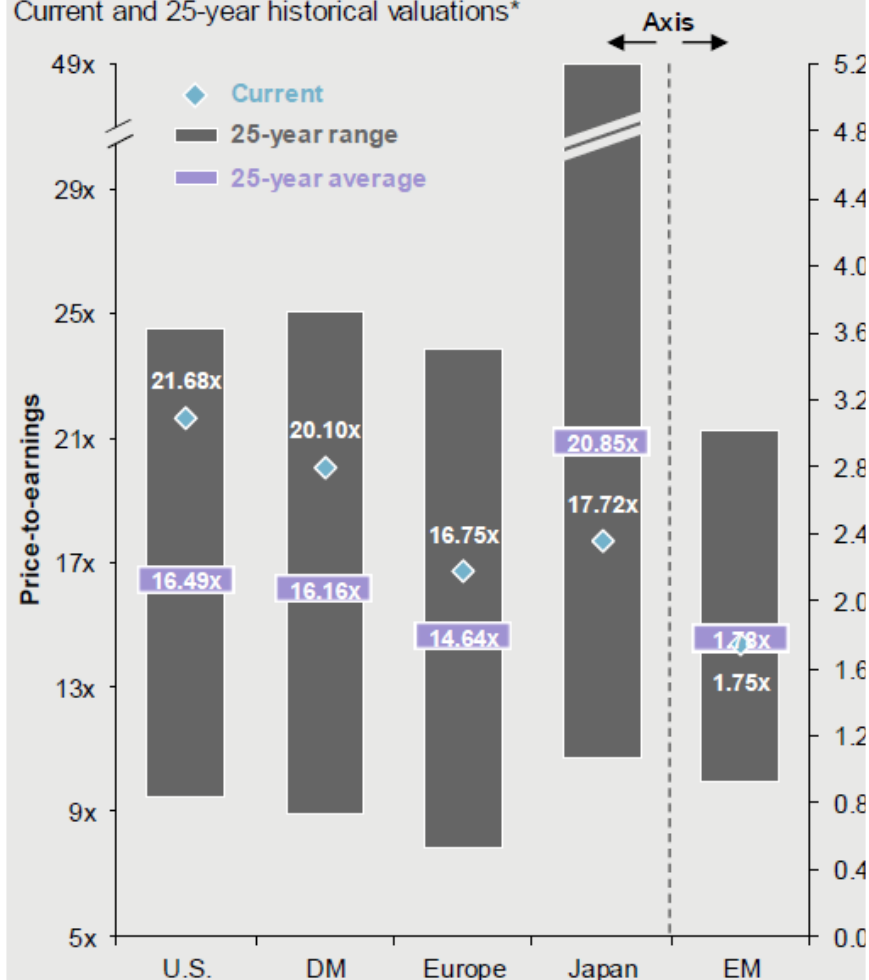
Global earnings

EPS, local currency, next 12 months, Jan. 2006 = 100



Global valuations

Current and 25-year historical valuations*



Source: FactSet, MSCI, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management.

All but Japan and EM appear overpriced as investors look beyond the next twelve months.

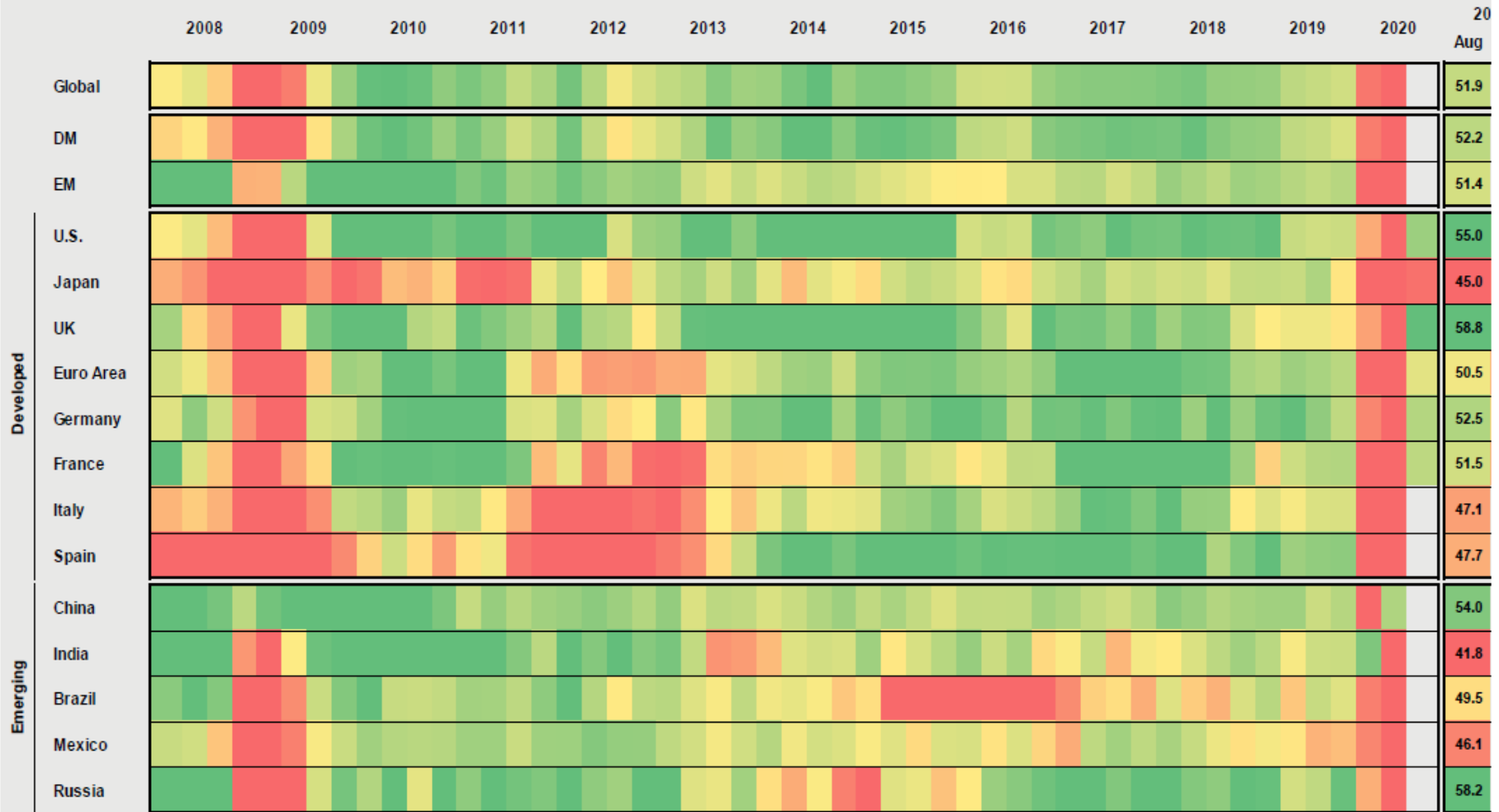
Packet Pg. 70

Communication: Sunpointe Market Environment Report 20Q4 (Sunpointe - Capital Markets)

Global Manufacturing Momentum

17

Global Purchasing Managers' Index for services, quarterly



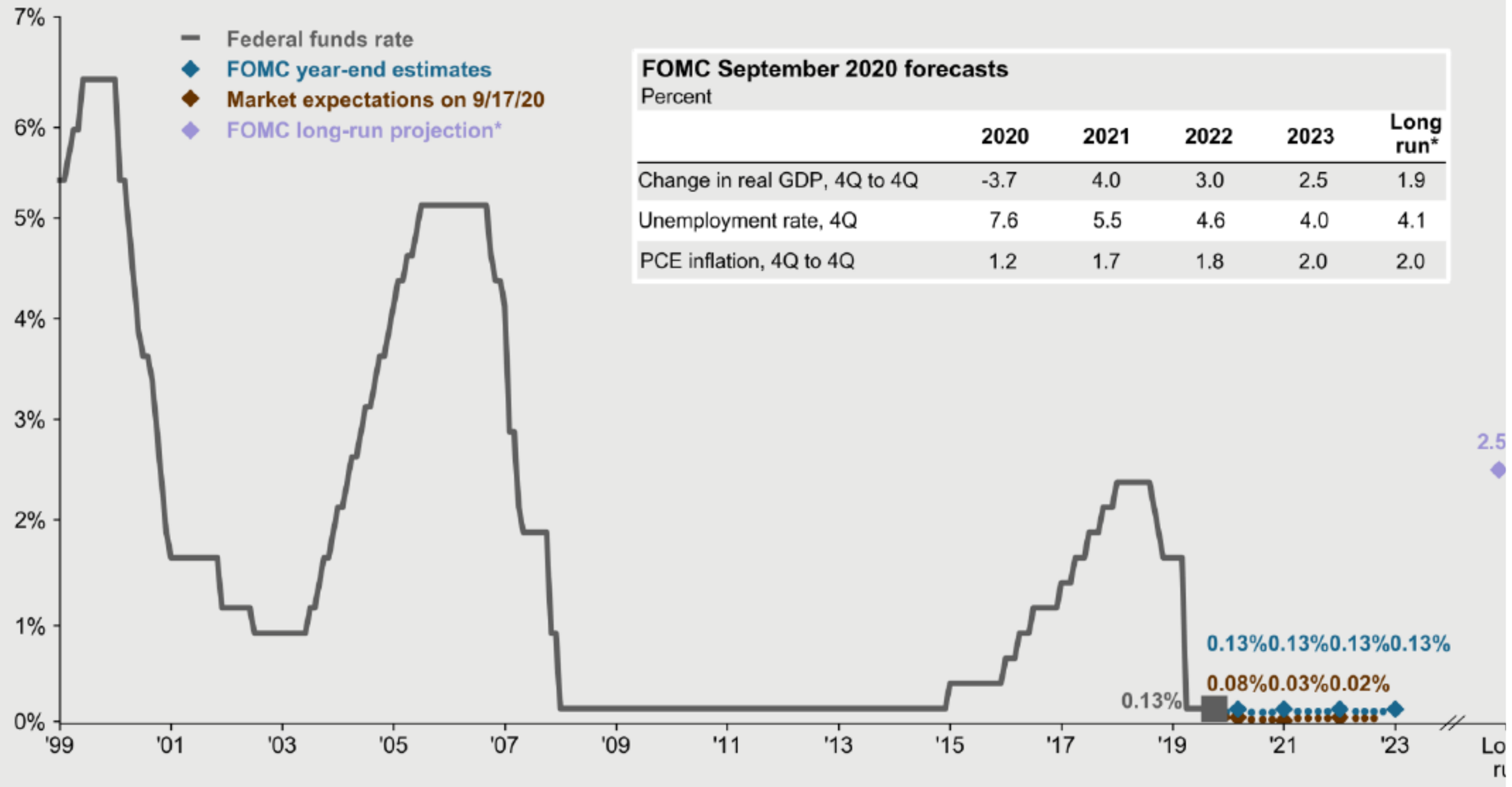
Source: Markit, J.P. Morgan Asset Management.

Note: A PMI reading over 50 conveys economic expansion

PMIs are improving. However, it is worth noting that the index is a measure of expansion/contraction from prior periods, not an absolute level.

Federal funds rate expectations

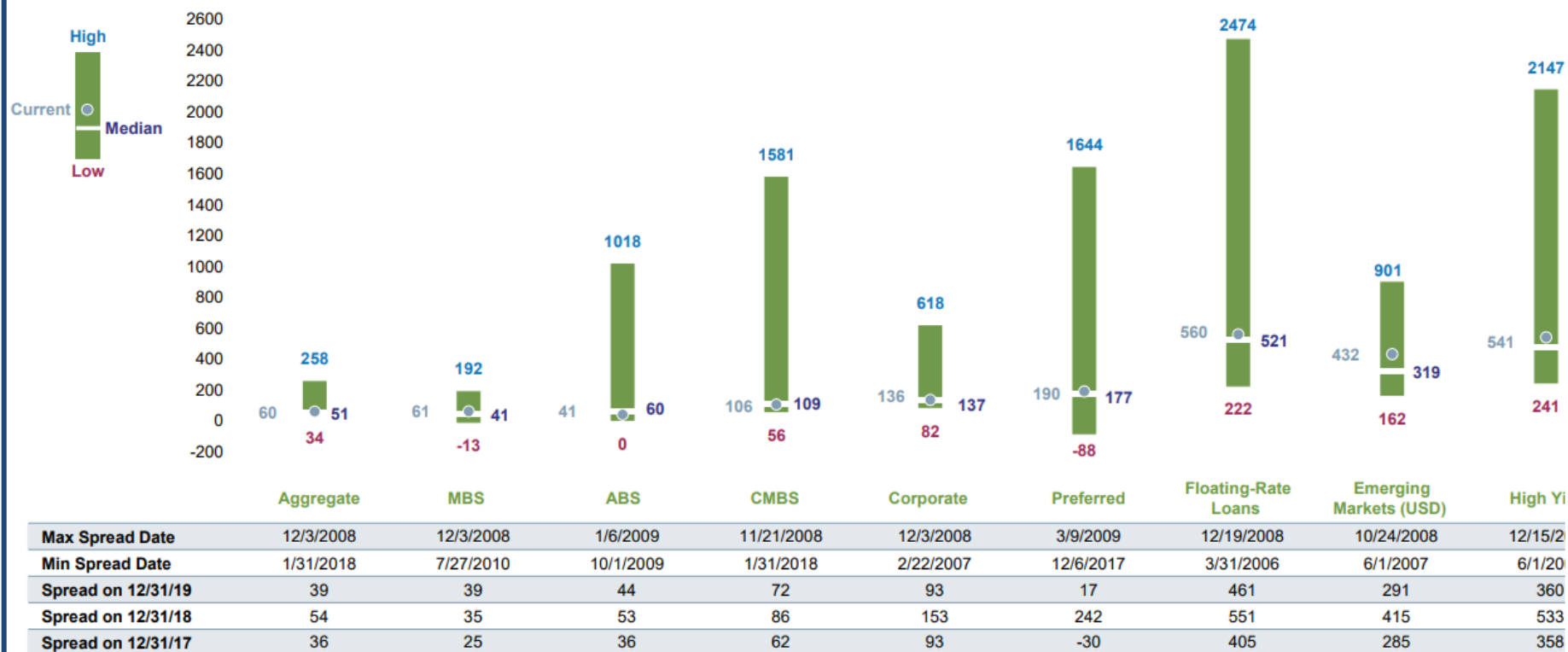
FOMC and market expectations for the federal funds rate



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

The Fed cut rates back to zero and have indicated they will be “lower for longer.”

Spread analysis (bps)



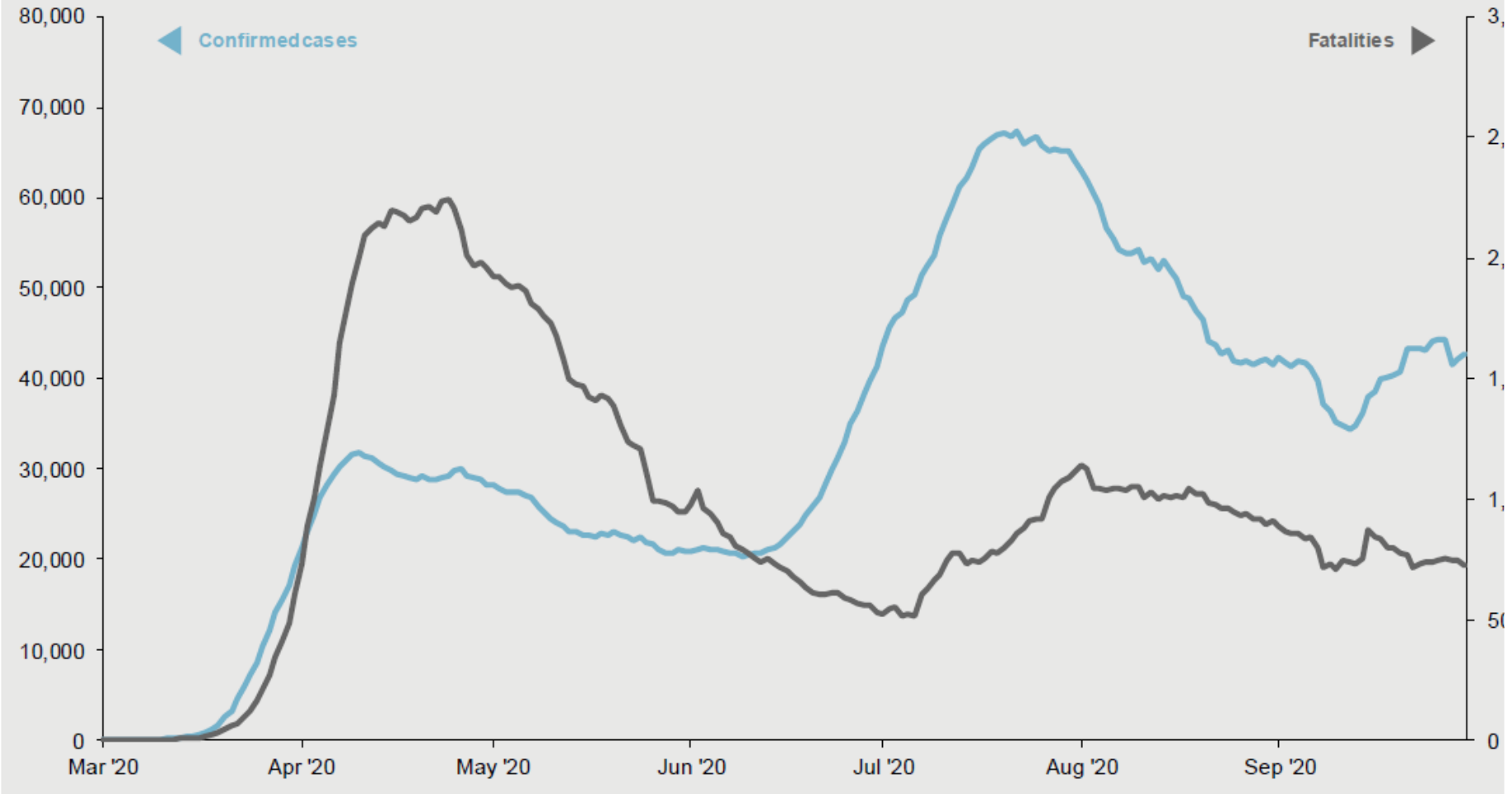
Source: Factset as of 9/30/20. Spread history measures past 15 years. Data provided is for informational use only. See end of report for important additional information. All fixed-income spreads are in basis points and measure option-adjusted yield spread relative to comparable maturity U.S. Treasuries using daily data. Loan Index spread represents the three-year discounted spread over LIBOR. Aggregate represented by Bloomberg Barclays US Aggregate Index. MBS represented by Bloomberg Barclays U.S. Mortgage Backed Securities (MBS) Index. ABS represented by Bloomberg Barclays U.S. Asset Backed Securities (ABS) Index. CMBS represented by Bloomberg Barclays U.S. CMBS Investment Grade Index. Corporate represented by Bloomberg Barclays U.S. Corporate Investment Grade Index. Preferred represented by ICE BofA Fixed Rate Preferred Securities Index. Floating-Rate Loans represented by S&P/LSTA Leveraged Loan Index. Emerging Markets(USD) represented by J.P. Morgan Emerging Markets Bond Index (EMBI) Global Diversified. High Yield represented by ICE BofA US High Yield Index.

Fixed income spreads widened substantially amidst the virus uncertainty. They have since come in and are near historical averages in several sectors, but are still above 12/31/19 spreads.

II. Economic Outlook

Change in confirmed cases and fatalities in the U.S.

7-day moving average, as of September 30, 2020

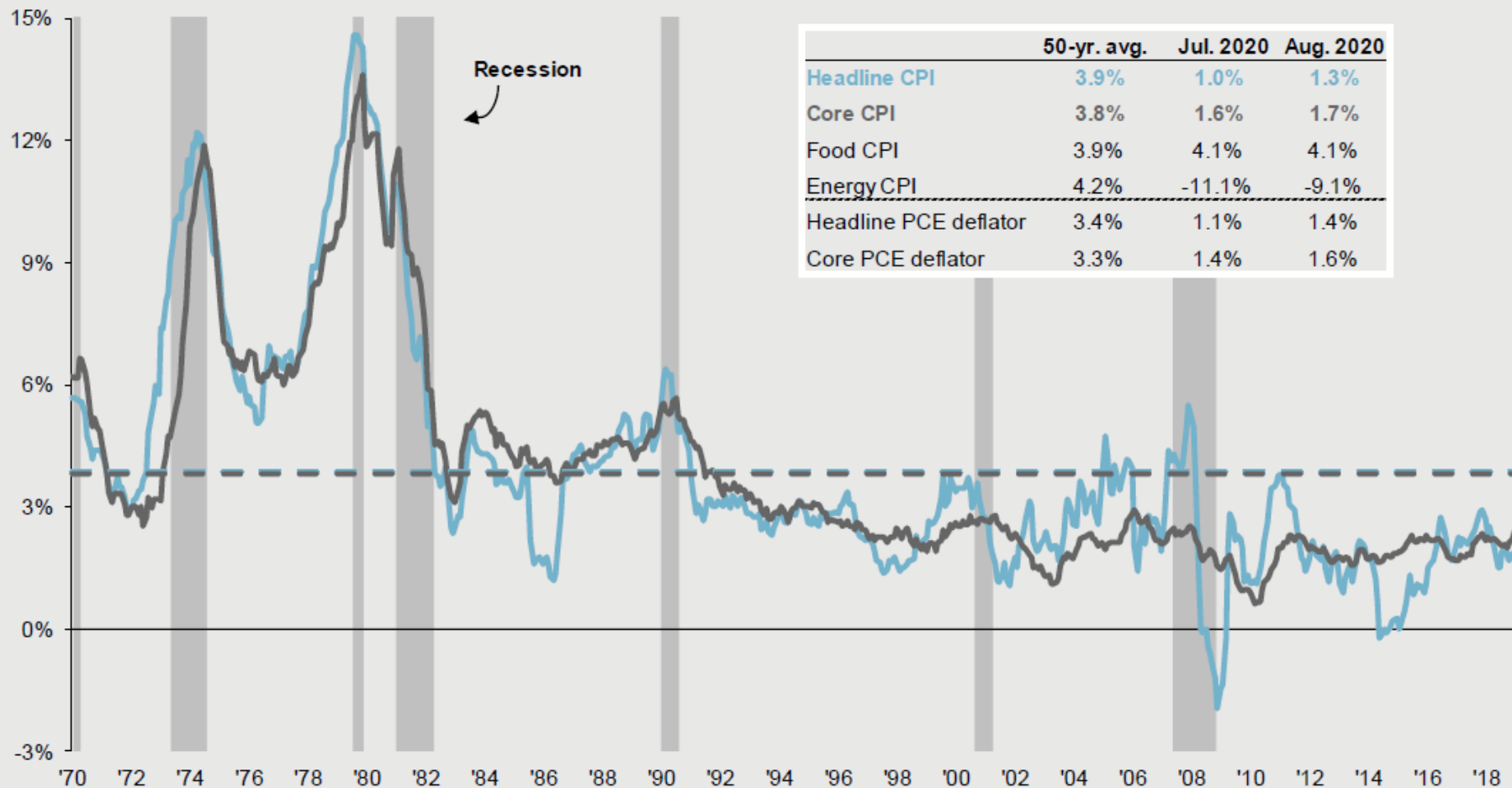


Source: Johns Hopkins CSSE, J.P. Morgan Asset Management.
Guide to the Markets – U.S. Data are as of September 30, 2020.

The path of the pandemic impacts the level of economic activity, and fluctuations cause a lot of uncertainty. Therefore, economic activity is likely to remain below pre-pandemic levels until the broad distribution of a safe and effective vaccine, likely in 2021.

CPI and core CPI

% change vs. prior year, seasonally adjusted

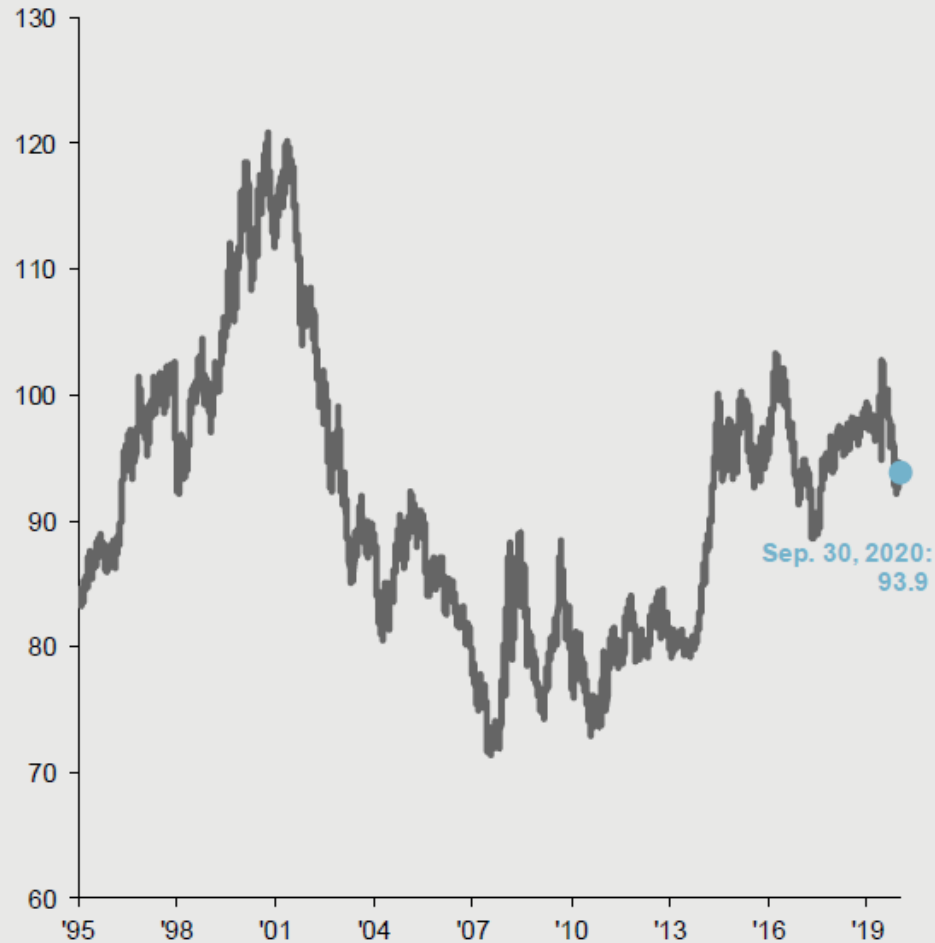


Source: BLS, FactSet, J.P. Morgan Asset Management.

The onset of the recession, combined with a collapse in oil prices, has triggered a decline in already low inflation. Although inflation normally troughs after the end of a recession, things may be a little different this time around, particularly given the potential for further economic stimulus after the election, the continuing extra costs of operating during a pandemic and the likelihood of an economic surge post-pandemic.

The U.S. dollar

U.S. Dollar Index



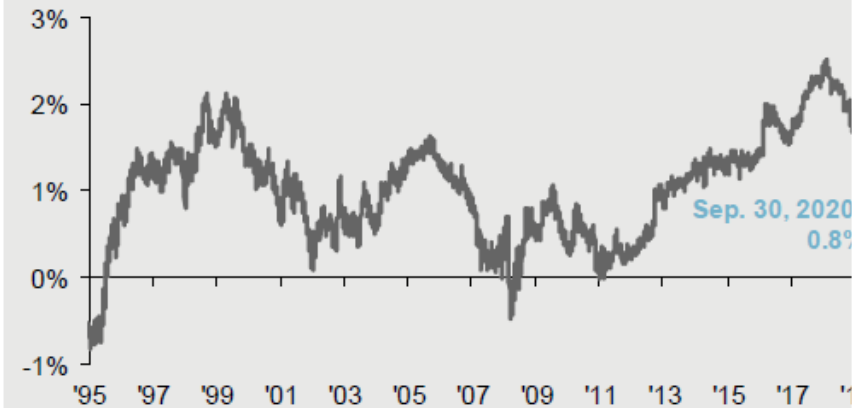
The U.S. trade balance

Current account balance, % of GDP



Developed markets interest rate differentials

Difference between U.S. and international 10-year yields*

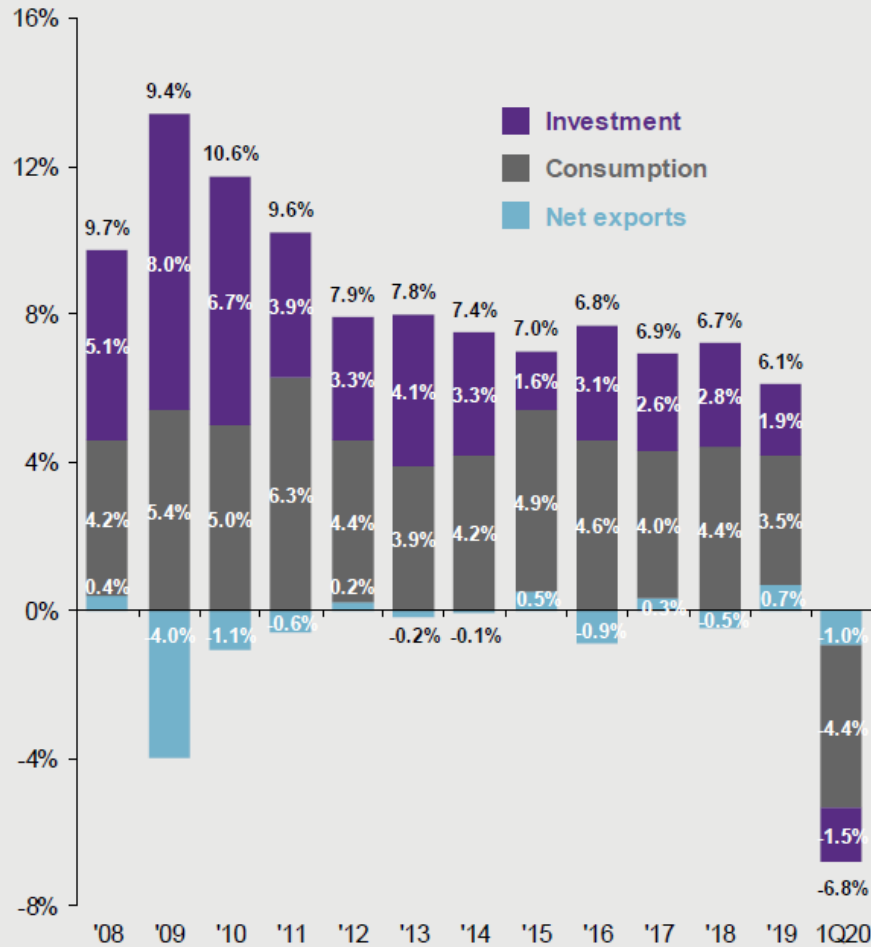


Source: J.P. Morgan Asset Management; (Left) FactSet, ICE; (Top right) Bureau of Economic Analysis, FactSet; (Bottom right) Tullett Prebon.

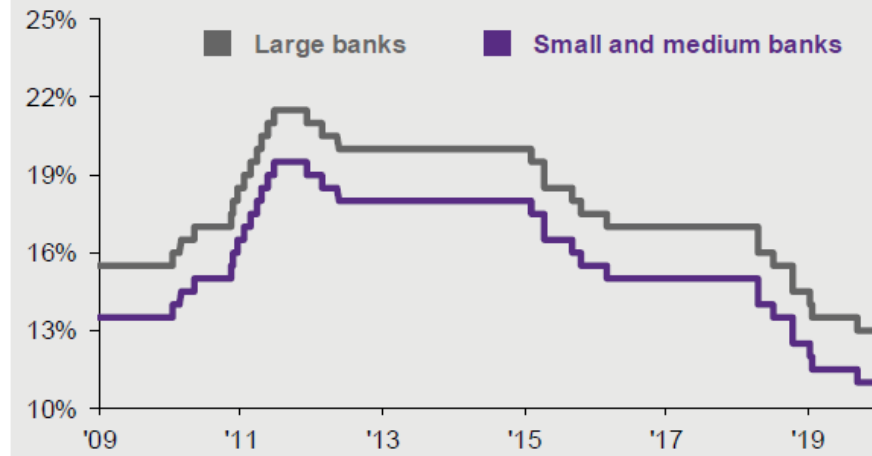
Decreasing interest rate differentials and a relatively stable current account deficit are keeping dollar strength somewhat contained, yet still present as investors seek safe havens.

China real GDP contribution

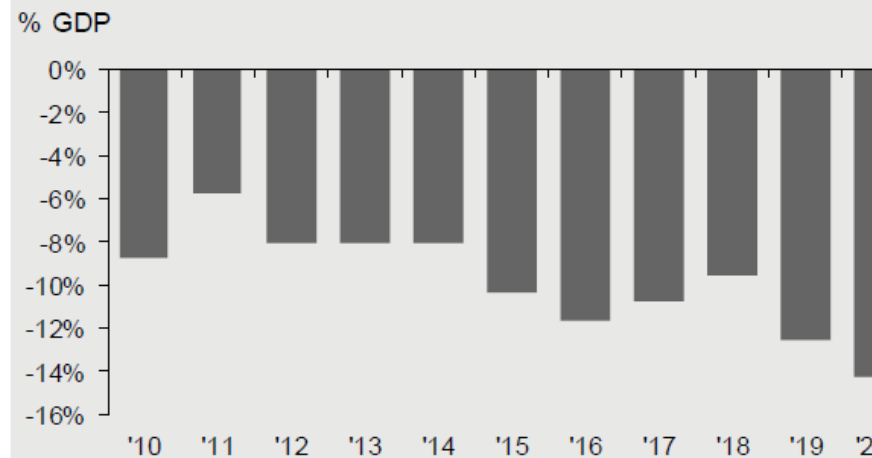
Year-over-year % change



Monetary stimulus: Reserve requirement ratio



Fiscal stimulus: Fiscal deficit*



Source: FactSet, J.P. Morgan Asset Management; (Left) CEIC; (Top right) People's Bank of China; (Bottom right) China Agriculture Development

III. Asset Class Rankings

Quilt Chart

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Highest	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	YTD	Q4
	REITS 35.06%	MSCI EME 39.78%	Barclays Agg 5.24%	MSCI EME 79.02%	REITS 27.96%	REITS 8.28%	REITS 19.70%	Russell 2000 38.82%	REITS 28.03%	REITS 2.83%	Russell 2000 21.31%	MSCI EME 37.75%	Barclays Agg 0.01%	S&P 500 31.49%	Barclays Agg 6.14%	Ru 20 25
	MSCI EME 32.58%	EM Debt 18.11%	EM Debt -5.22%	High Yield 58.21%	Russell 2000 26.85%	Barclays Agg 7.84%	MSCI EME 18.63%	Russell 3000 33.55%	S&P 500 13.69%	S&P 500 1.38%	High Yield 17.13%	MSCI EAFE 25.62%	High Yield -2.08%	Russell 3000 31.02%	Equity Hedge -2.93%	Ru 30 22
	MSCI EAFE 26.86%	Blmbrg Cmnty 16.23%	AA Portfolio -23.17%	MSCI EAFE 32.46%	MSCI EME 19.20%	High Yield 4.98%	MSCI EAFE 17.90%	S&P 500 32.39%	Russell 3000 12.56%	Barclays Agg 0.55%	Russell 3000 12.74%	S&P 500 21.83%	REITS -4.04%	REITS 28.66%	S&P 500 -3.08%	S 5 20
	Russell 2000 18.37%	MSCI EAFE 11.63%	High Yield -26.15%	Russell 3000 28.34%	Russell 3000 16.93%	S&P 500 2.11%	EM Debt 16.76%	MSCI EAFE 23.29%	Barclays Agg 5.97%	Russell 3000 0.48%	S&P 500 11.96%	Russell 3000 21.13%	S&P 500 -4.38%	Russell 2000 25.52%	AA Portfolio -3.42%	M E 18
	S&P 500 15.79%	Equity Hedge 10.48%	Equity Hedge -26.65%	REITS 27.99%	Blmbrg Cmnty 16.83%	Russell 3000 10.3%	Russell 3000 16.42%	Equity Hedge 14.28%	AA Portfolio 5.64%	MSCI EAFE -0.39%	Blmbrg Cmnty 11.77%	AA Portfolio 15.22%	Russell 3000 -5.24%	MSCI EAFE 22.66%	Russell 3000 -3.48%	M E 15
	Russell 3000 15.72%	AA Portfolio 8.01%	Russell 2000 -33.79%	Russell 2000 27.17%	EM Debt 15.68%	AA Portfolio -0.76%	Russell 2000 16.35%	AA Portfolio 14.19%	Russell 2000 4.89%	Equity Hedge -0.96%	MSCI EME 11.60%	EM Debt 15.21%	AA Portfolio -5.85%	AA Portfolio 19.36%	High Yield -3.80%	Eq He 13
	AA Portfolio 15.61%	Barclays Agg 6.97%	Blmbrg Cmnty -35.65%	S&P 500 26.46%	High Yield 15.12%	EM Debt -1.75%	S&P 500 16.00%	High Yield 7.44%	High Yield 2.45%	AA Portfolio -1.43%	EM Debt 9.94%	Russell 2000 14.65%	EM Debt -6.21%	MSCI EME 18.90%	EM Debt -6.89%	RE 13
	EM Debt 15.22%	S&P 500 5.49%	S&P 500 -37.00%	Equity Hedge 24.57%	S&P 500 15.06%	Russell 2000 -4.18%	High Yield 15.81%	REITS 2.86%	Equity Hedge 1.81%	Russell 2000 -4.41%	REITS 8.63%	Equity Hedge 13.29%	Equity Hedge -7.13%	High Yield 14.32%	MSCI EME -9.67%	A Por 13
	High Yield 11.85%	Russell 3000 5.14%	Russell 3000 -37.31%	AA Portfolio 23.56%	AA Portfolio 12.96%	Equity Hedge -8.38%	AA Portfolio 12.28%	Barclays Agg -2.02%	MSCI EME -1.82%	High Yield -4.47%	AA Portfolio 7.51%	REITS 8.67%	Russell 2000 -11.01%	Equity Hedge 13.69%	MSCI EAFE -11.07%	H Y 10
	Equity Hedge 11.71%	High Yield 1.87%	REITS -37.73%	EM Debt 21.98%	Equity Hedge 10.45%	MSCI EAFE -11.73%	Equity Hedge 7.41%	MSCI EME -2.27%	MSCI EAFE -4.48%	MSCI EME -14.60%	Equity Hedge 5.47%	High Yield 7.50%	Blmbrg Cmnty -11.25%	EM Debt 13.47%	Russell 2000 -12.98%	E D 9
	Barclays Agg 4.33%	Russell 2000 -1.57%	MSCI EAFE -43.06%	Blmbrg Cmnty 18.91%	MSCI EAFE 8.21%	Blmbrg Cmnty -13.32%	Barclays Agg 4.22%	EM Debt -8.98%	EM Debt -5.72%	EM Debt -14.92%	Barclays Agg 2.65%	Barclays Agg 3.54%	MSCI EAFE -13.36%	Barclays Agg 8.72%	REITS -13.30%	Bl Cm 5
	Blmbrg Cmnty 2.07%	REITS -15.69%	MSCI EME -53.18%	Barclays Agg 5.93%	Barclays Agg 6.54%	MSCI EME -18.17%	Blmbrg Cmnty -10.6%	Blmbrg Cmnty -9.52%	Blmbrg Cmnty -17.01%	Blmbrg Cmnty -24.66%	MSCI EAFE 1.51%	Blmbrg Cmnty 1.70%	MSCI EME -14.25%	Blmbrg Cmnty 7.69%	Blmbrg Cmnty -19.40%	Bar A 2.90%

- EM Debt = JP Morgan GBI EM Global Diversified Unhedged TR
 - REITS - FTSE/NAREIT All Equity REITS
 - Equity Hedge = HFRI Equity Hedge
 - AA Portfolio = 21% S&P, 9% R2000, 15% EAFE, 5% EM, 30% Agg, 10% HFRI EH, 5% EMD, 5% REITS
 Source: Conway Investment Research, Morningstar, MSCI, HFRI

- High Yield = Barclays Capital US Corporate High Yield
 - Blmbrg Cmnty = Bloomberg Commodity TR
 - MSCI EAFE = MSCI EAFE GD
 - MSCI EME = MSCI EM Equity GD

IV. Capital Market Assumptions

10 Year Forward Looking Market Assumptions | 28

Asset Class	Representative Index	2019 Arithmetic Expected Return	2020 Arithmetic Expected Return	2019-2020 Difference	2020 Compound Expected Return	2020 Standard Deviation	2020 Yield	10 Year Benchmark Return (2010-2019)
Cash/Low Duration	FTSE 3-Month Treasury Bills	2.5%	2.5%	-0.1%	2.4%	1.3%	1.6%	0.6%
Municipal Bonds	Barclays Intermediate Municipal 5-10 Year	3.4%	2.6%	-0.8%	2.6%	3.8%	1.8%	4.0%
Municipal High Yield	Barclays High Yield Municipal	4.7%	4.3%	-0.5%	4.0%	7.3%	4.2%	7.2%
Investment Grade Credit	Barclays U.S. Corporate Investment Grade	4.2%	3.5%	-0.6%	3.4%	5.5%	2.8%	5.5%
U.S. Core Fixed Income	Barclays U.S. Aggregate	3.7%	2.8%	-0.9%	2.7%	3.4%	2.3%	3.8%
Non-U.S. Developed Fixed Income	FTSE WGBI NonUSD	2.5%	2.0%	-0.6%	1.6%	8.9%	0.7%	1.4%
Bank Loans	Credit Suisse Leveraged Loan	5.6%	5.4%	-0.2%	5.2%	5.8%	6.1%	8.2%
High Yield Bonds	Barclays U.S. Corporate High Yield	5.7%	5.2%	-0.4%	4.8%	9.2%	5.4%	7.6%
Emerging Market Debt	50% JPM EMBI Global / 50% JPM GBI-EM Gbl Div	6.4%	5.1%	-1.3%	4.7%	9.3%	5.1%	4.7%
Preferred Securities	S&P Preferred Stock	5.3%	4.4%	-0.9%	3.7%	12.7%	4.8%	7.3%
Credit Strategies	Blended Private Debt Index	7.4%	7.0%	-0.4%	6.8%	6.9%	7.3%	8.5%
Diversifying Strategies	HFRI Fund of Funds Conservative	4.7%	4.7%	0.0%	4.2%	10.0%	0.0%	2.8%
Tactical Asset Allocation	60% MSCI ACWI / 40% Barclays U.S. Aggregate	5.8%	5.3%	-0.5%	5.0%	7.5%	2.3%	7.1%
Trading Strategies (Equity Long/Short)	HFRI Equity Hedge	6.5%	6.3%	-0.2%	4.8%	10.0%	0.0%	4.7%
U.S. Large Cap Equity	S&P 500	6.7%	6.5%	-0.2%	5.6%	14.5%	1.9%	13.6%
U.S. Mid Cap Equity	Wilshire U.S. Mid Cap	7.9%	7.6%	-0.3%	6.2%	17.4%	1.7%	13.2%
U.S. Small Cap Equity	Wilshire U.S. Small Cap	7.6%	7.2%	-0.4%	5.4%	19.4%	1.5%	11.8%
Global Equity	MSCI ACWI	7.2%	7.0%	-0.2%	5.9%	15.3%	2.4%	9.4%
Non-U.S. Developed Equity	MSCI EAFE	7.2%	6.8%	-0.4%	5.6%	16.3%	3.2%	6.0%
Non-U.S. Developed Small Cap Equity	MSCI EAFE Small Cap	8.2%	7.8%	-0.5%	6.4%	17.5%	2.6%	9.1%
Emerging Markets Equity	MSCI Emerging Markets	10.2%	10.1%	-0.1%	8.0%	21.4%	2.6%	4.0%
China Equity	MSCI China	N/A	10.7%	N/A	8.0%	23.4%	1.5%	5.4%
Private Equity	Cambridge U.S. Private Equity	12.0%	12.0%	0.0%	9.6%	22.0%	0.0%	16.4%
MLPs	Alerian MLP	9.4%	8.6%	-0.8%	7.2%	17.3%	6.4%	4.2%
TIPS	Barclays U.S. Treasury TIPS	3.1%	2.6%	-0.5%	2.5%	5.5%	0.2%	3.4%
Public Core Real Estate	FTSE NAREIT All Equity REITs	7.0%	7.1%	0.1%	5.8%	16.7%	3.7%	12.6%
Private Real Estate	NCREIF Property	9.0%	9.0%	0.0%	7.6%	17.0%	0.0%	9.8%
Opportunistic Yielding Strategies	Blended Private Debt Index	10.0%	10.0%	0.0%	9.6%	9.0%	11.1%	8.5%
Commodities	Bloomberg Commodity	4.5%	4.3%	-0.2%	3.1%	16.2%	0.0%	-4.7%
Infrastructure	S&P Global Infrastructurre	6.9%	6.7%	-0.2%	6.2%	10.5%	4.0%	7.7%

Compounded/Geometric returns are derived from arithmetic returns and the associated standard deviation.
Source: Sunpointe Investments, Conway Investment Research

2020 Capital Market Assumptions – Correlation Matrix | 29

Asset Class	Cash/Low Duration	US Core Fixed Income	Municipal Bonds	Investment Grade Credit	TIPS	Tactical Allocation	Diversifying Strategies	Long/Short Equity	Municipal High Yield	Preferred Securities	Global Equity	US ALL Cap/Large Cap Equity	US Mid Cap Equity	US Small Cap Equity	Intl All Cap/Large Cap Equity	Intl Small Cap Equity	Emerging Market Equity	Private Equity	Emerging Market Equity	Infrastructure	MLP	Commodities	Bank Loans	High Yield Bonds	Emerging Market Debt	Credit & Yielding Strats	Opportunistic Fixed Income	Public Core Real Estate
Cash/Low Duration	1.00	0.08	0.03	-0.11	0.07	0.01	0.12	0.04	-0.08	-0.15	0.02	-0.07	-0.08	-0.09	0.06	-0.03	0.15	-0.13	0.15	0.16	-0.02	0.14	-0.10	-0.12	-0.03	-0.10	0.05	-0.02
US Core Fixed Income		1.00	0.84	0.77	0.63	-0.19	0.31	-0.24	0.17	0.25	-0.14	-0.19	-0.18	-0.27	-0.11	-0.12	-0.04	-0.26	-0.04	0.10	-0.04	-0.17	-0.20	0.03	0.35	-0.09	0.97	0.09
Municipal Bonds			1.00	0.58	0.56	-0.18	0.19	-0.23	0.16	0.15	-0.14	-0.19	-0.20	-0.27	-0.11	-0.13	-0.05	-0.26	-0.05	0.03	-0.01	-0.25	-0.23	-0.01	0.33	-0.13	0.81	0.01
Investment Grade Credit				1.00	0.50	0.34	0.24	0.29	0.41	0.73	0.38	0.30	0.33	0.19	0.40	0.40	0.41	0.25	0.41	0.52	0.32	0.18	0.30	0.54	0.67	0.41	0.87	0.40
TIPS					1.00	0.14	0.10	0.05	0.45	0.06	0.06	-0.01	0.04	-0.09	0.04	0.04	0.21	-0.09	0.21	0.20	0.25	0.29	0.21	0.31	0.55	0.27	0.69	0.12
Tactical Allocation						1.00	-0.08	0.93	0.61	0.53	0.87	0.79	0.86	0.77	0.85	0.85	0.87	0.82	0.87	0.77	0.73	0.62	0.89	0.91	0.73	0.93	0.05	0.58
Diversifying Strategies							1.00	0.03	-0.08	0.15	0.05	0.04	0.06	0.02	0.05	0.05	0.04	-0.03	0.04	0.11	0.00	-0.07	-0.23	-0.13	-0.03	-0.18	0.26	0.03
Long/Short Equity								1.00	0.43	0.55	0.95	0.87	0.92	0.85	0.93	0.92	0.90	0.87	0.90	0.82	0.68	0.64	0.75	0.81	0.65	0.81	-0.01	0.56
Municipal High Yield									1.00	0.27	0.46	0.44	0.50	0.35	0.42	0.45	0.49	0.42	0.49	0.46	0.45	0.28	0.74	0.69	0.72	0.73	0.35	0.58
Preferred Securities										1.00	0.62	0.52	0.55	0.45	0.65	0.68	0.57	0.55	0.57	0.63	0.38	0.32	0.41	0.62	0.54	0.50	0.38	0.52
Global Equity											1.00	0.95	0.96	0.89	0.98	0.93	0.90	0.88	0.90	0.90	0.63	0.58	0.72	0.82	0.70	0.80	0.09	0.71
US ALL Cap/Large Cap Equity												1.00	0.97	0.92	0.88	0.82	0.75	0.89	0.75	0.81	0.64	0.48	0.68	0.76	0.59	0.75	0.02	0.75
US Mid Cap Equity													1.00	0.95	0.90	0.88	0.80	0.92	0.80	0.84	0.69	0.55	0.76	0.83	0.65	0.83	0.05	0.77
US Small Cap Equity														1.00	0.83	0.81	0.69	0.95	0.69	0.74	0.61	0.44	0.66	0.73	0.52	0.73	-0.06	0.77
Intl All Cap/Large Cap Equity															1.00	0.96	0.90	0.84	0.90	0.90	0.56	0.56	0.67	0.78	0.68	0.75	0.10	0.66
Intl Small Cap Equity																1.00	0.87	0.86	0.87	0.83	0.53	0.55	0.69	0.78	0.68	0.75	0.09	0.63
Emerging Market Equity																	1.00	0.72	1.00	0.84	0.57	0.62	0.72	0.80	0.78	0.78	0.18	0.54
Private Equity																		1.00	0.72	0.71	0.61	0.44	0.73	0.79	0.56	0.78	-0.05	0.72
Emerging Market Equity																			1.00	0.84	0.57	0.62	0.72	0.80	0.78	0.78	0.18	0.54
Infrastructure																				1.00	0.61	0.61	0.62	0.75	0.70	0.72	0.30	0.71
MLP																					1.00	0.56	0.64	0.73	0.57	0.73	0.15	0.45
Commodities																						1.00	0.58	0.58	0.47	0.61	-0.01	0.32
Bank Loans																							1.00	0.92	0.72	0.97	0.04	0.59
High Yield Bonds																								1.00	0.85	0.98	0.28	0.68
Emerging Market Debt																									1.00	0.80	0.57	0.61
Credit & Yielding Strats																										1.00	0.16	0.65
Opportunistic Fixed Income																											1.00	0.26
Public Core Real Estate																												1.00
Private Core Real Estate																												

The charts and information in this presentation are for illustrative purposes only, and are based upon sources of information that Sunpointe, LLC generally considers reliable, however we cannot guarantee, nor have we verified, the accuracy of such independent market information. The charts and information, and the sources utilized in the compilation thereof, are subjective in nature and open to interpretation.

FOR USE WITH INSTITUTIONAL INVESTORS AND INVESTMENT PROFESSIONALS ONLY.

NOT FOR PUBLIC DISTRIBUTION.

PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

RESOLUTION NO. _____

**A RESOLUTION APPROVING THE FISCAL YEAR ENDING JUNE 30, 2021 CONTRIBUTIONS TO THE
EMPLOYEE PENSION FUND IN THE TOTAL AMOUNT OF \$1,271,253**

WHEREAS, THE CITY OF CREVE COEUR PROVIDES A DEFINED BENEFIT (DB) PENSION PLAN FOR ELIGIBLE EMPLOYEES, AND

WHEREAS THE PENSION PLAN IS FUNDED THROUGH ANNUAL CONTRIBUTIONS BY THE CITY, AND

WHEREAS, THE ANNUAL ACTUARIAL STUDY HAS RECOMMENDED A CONTRIBUTION OF \$1,230,482 AS OF JULY 1, 2020, AND

WHEREAS, THE CITY HAS MADE ONE PAYMENT OF \$348,688.02 ON AUGUST 18, 2020 PURSUANT TO THE BUDGET FOR THE 1ST QUARTER OF THE FISCAL YEAR WHICH INCLUDED INTEREST AT AN ANNUAL RATE OF 6.75% PURSUANT TO CITY POLICY, AND

WHEREAS, STAFF IS RECOMMENDING THE REMAINING CONTRIBUTIONS TO BE MADE IN TWO PAYMENTS DUE TO BANK LIMITATIONS, WITH ONE ON OCTOBER 27TH AND ONE ON OCTOBER 28TH FOR \$499,667.87 AND \$422,897.09 RESPECTIVELY AND

WHEREAS, IT IS IMPORTANT TO MAINTAIN THE ANNUAL REQUIRED FUNDING FOR THE PLAN, AND

WHEREAS, THE ANNUAL CONTRIBUTION WAS INCLUDED IN THE FISCAL YEAR 2021 BUDGET, AND

WHEREAS, THE BUDGETED AMOUNT FOR PENSION PAYMENT IS \$75,812 MORE THAN THE RECOMMENDED ACTUARIAL CONTRIBUTION PLUS INTEREST FOR FY 2021.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CREVE COEUR, MISSOURI THAT:

SECTION 1. THE DIRECTOR OF FINANCE IS HEREBY DIRECTED TO MAKE A CONTRIBUTION IN THE AMOUNT OF \$922,564.96 IN TWO PAYMENTS THROUGH OCTOBER 28TH INCLUDING INTEREST AT AN ANNUAL RATE OF 6.75% TO THE CITY EMPLOYEE DEFINED BENEFIT (DB) PLAN AS APPROPRIATED IN THE FISCAL YEAR 2021 BUDGET AND AUTHORIZED HEREIN.

SECTION 2. THIS RESOLUTION SHALL TAKE EFFECT UPON APPROVAL.

ADOPTED THIS 26TH DAY OF OCTOBER 2020.

BARRY GLANTZ, MAYOR

ATTEST:

DEBORAH RYAN
CITY CLERK

Communication: FY21 Resolution Pension Contribution (New Business)

INVESTMENT POLICY STATEMENT

for the

**Retirement Plan for Employees of
the City of Creve Coeur**

This investment policy statement should be reviewed and updated periodically. Any change to this policy should be communicated in writing on a timely basis to all interested parties.

EXECUTIVE SUMMARY

Type of Portfolio:	Defined Benefit Pension Plan
Sponsor:	City of Creve Coeur
Pension Board:	Employee Pension Fund Board of Trustees ("Board")
Discretionary Equity Portfolio Investment Manager:	Fiduciary Advisors, Inc.
Equity Portfolio Custodian:	Charles Schwab & Co., Inc.
Discretionary Fixed Income Portfolio Investment Manager:	Commerce Trust Company
Fixed Income Portfolio Custodian:	Commerce Trust Company
Strategic Asset Allocation:	

Major Asset Class	Strategic Allocation	Lower Limit	Upper Limit
Equity	64%	59%	69%
Alternatives	6%	1%	11%
Fixed Income	30%	25%	35%

Equity/Alternative Portfolio	Strategic Allocation	Lower Limit	Upper Limit
Money Market	0%	0%	2%
Large Blend	32%	27%	37%
Large Value	6%	4%	8%
Mid Cap	7%	5%	9%
Small Cap	11%	8%	14%
Small Value	2%	1%	3%
International- Large	25%	20%	30%
International- Small	8%	6%	10%
REITS	5%	3%	7%
Commodities	4%	2%	6%

Fixed Income: See Fixed Income Investment Guidelines as approved by the Board and adopted by Commerce Trust Company.

BACKGROUND

Administration of the City of Creve Coeur Employees' Pension Plan, including investment of plan funds, is the responsibility of The Board of Trustees, which is the named fiduciary, (Article VIII of the Plan dated June 26, 2001, as amended).

The plan is a frozen defined benefit pension plan for full time city employees meeting the plan eligibility requirements. Employees hired after May 23, 2006 are not eligible to participate in this plan. Lump sum payments are not a distribution option.

STATEMENT OF OBJECTIVES

In establishing this Investment Policy, the Board has considered the fact that the Plan, together with social security, is the major retirement vehicle for most plan participants and has acted to discharge its fiduciary responsibility solely in the interests of such participants and their beneficiaries.

The purpose of a formal Investment Policy is to identify and establish investment objectives and guidelines that are realistic over variable market environments and appropriate to the funding requirements of the plan. The investment policy statement serves as the cornerstone of which all investment decisions will be made in order to achieve the long-term goals of the Board and will also serve as a standard by which to measure investment performance.

The basic goal underlying the establishment of this policy is to provide that the assets of the Plan shall be invested in a prudent manner, and that together with expected contributions to the Plan they will be sufficient to meet the obligations of the Plan.

Time Horizon

The investment guidelines are based upon a long term investment horizon with the ability to pay current obligations. The Plan's strategic asset allocation is also based on this long-term perspective.

Risk Tolerances

The Board recognizes that some risk must be assumed in order to achieve the investment objectives of the Portfolio. In establishing the risk tolerances of the IPS, the ability to withstand short and intermediate term variability were considered.

The Portfolio's long time horizon, current financial condition and other factors suggest collectively some interim fluctuations in market value and rates of return may be tolerated in order to achieve the longer-term objectives.

Performance Expectations

The desired investment objective is a rate of return on assets that, before fees, matches the policy index as defined later in this IPS.

DUTIES AND RESPONSIBILITIES

Board

As a fiduciary under the Portfolio, the Board is responsible for the following items with respect to this IPS:

1. Approving and maintaining this IPS.
2. Monitoring and supervising the Managers for adherence to this IPS, including any limitations.
3. Controlling and monitoring all investment, record keeping and administrative expenses associated with the Portfolio.
4. Avoiding prohibited transactions and conflicts of interest.

Custodian

Custodians are responsible for the safekeeping of the Portfolio's assets. The specific duties and responsibilities of the custodian are:

1. Value the holdings.
2. Collect all income and dividends owed to the Portfolio.
3. Settle all transactions (buy-sell orders).
4. Provide monthly reports that detail transactions, cash flows, securities held and their current value, and change in value of each security and the overall Portfolio since the previous report.
5. Maintain separate accounts by legal registration.

Discretionary Investment Manager

As distinguished from the Board, who is responsible for establishing and monitoring the investment objectives, the Manager is responsible for making investment decisions. The specific duties and responsibilities of the Manager are to:

1. Manage the Portfolio in accordance with the guidelines and objectives outlined in this IPS.
2. Exercise full investment discretion with regard to adding, replacing, and managing the investment of the Portfolio.
3. Communicate to the Board all investment changes pertaining to the Portfolio's investments.
4. Use the same care, skill, prudence, and due diligence under the circumstances then prevailing that a prudent investment professional acting in a like capacity and familiar with such matters would use in the conduct of like activities for like not for profit organization investment portfolios with like aims and in accordance and compliance with the documents governing the Portfolio, (insofar as such documents are consistent with applicable laws), and all applicable laws, rules, and regulations.

ASSET CLASS AND INVESTMENT OPTIONS

The following asset classes, along with appropriate Index and Peer comparisons, have been selected by the Manager and approved by the Board:

Equity Portfolio Asset Classes:

Asset Class	Index Comparison	Peer Group Comparison
Money Market	90 day T-Bills	Money Market Database
Large Blend	S&P 500	Large Blend
Large Value	MSCI US Prime Mkt Value	Large Value
Mid Cap	MSCI US Mid Cap 450	Mid Blend
Small Cap	MSCI US Small Cap 1750	Small-Cap Blend
Small Value	MSCI US Small Cap Value	Small Cap Value
International- Large	MSCI ACWI ex US NR USD	Foreign Large Blend
International- Small	MSCI ACWI ex US Small Cap	Foreign Small/Mid
REITS	MSCI US REIT	Real Estate
Commodities	Bloomberg Commodity TR	Commodities Broad Basket

Equity Portfolio Policy Index

Index	Percentage
S&P 500	32%
MSCI US Prime Mkt Value	6%
MSCI US Mid Cap 450	7%
MSCI US Small Cap 1750	11%
MSCI US Small Cap Value	2%
MSCI ACWI ex US NR USD	25%
MSCI ACWI ex US Small Cap	8%
MSCI US REIT	5%
Bloomberg Commodity TR	4%

Fixed Income Portfolio:

Asset Class	Index Comparison	Peer Group Comparison
U.S. Intermediate Term Bond	Barclays US Aggregate Bond Index	Intermediate Term Bond

Fixed Income Portfolio Policy Index:

Index	Percentage
Barclays US Agg Bond Idx	100%

Fixed Income Investment Policy: See separate Fixed Income Investment Policy

Prohibited Investment Activity:

Investment activity in the following is specifically prohibited without the Board's written permission (does not include underlying investments of mutual funds or ETFs)

1. Commodity trading including all futures contracts
2. Purchasing of letter stock
3. Short selling
4. Option trading
5. Stock loans
6. Securities of the investment manager, the custodian, or their parent or affiliate

INVESTMENT SELECTION

The Equity Portfolio Manager will apply the following due diligence criteria in selecting an investment fund (Fund) option.

Regulatory oversight: Each Fund should be a regulated bank, an insurance company, a mutual fund organization, or a registered investment adviser.

Correlation to style or peer group: The Fund should be highly correlated to the asset class of the investment option.

Performance relative to a peer group: The Fund's performance should be evaluated against the peer group's median manager's return, for one-, three- and five-year cumulative periods (waived for passive index funds).

Performance relative to assumed risk: The Fund's risk-adjusted performance (Alpha and/or Sharpe Ratio) should be evaluated against the peer group's median manager's risk-adjusted performance (waived for passive index funds).

Minimum track record: The Fund's inception date should be greater than three years (waived for passive index fund, fund of funds or funds with other share classes with at least a three-year performance history).

Assets under management: The Fund should have at least \$75 million under management.

Holdings consistent with style: The Fund should have no more than 20% of the portfolio invested in "unrelated" asset class securities.

Expense ratios/fees: The Fund's fees should not be in the bottom quartile (most expensive) of its peer group.

Stability of the organization: There should be no perceived organizational problems with the mutual fund complex sponsoring the Fund.

The same portfolio management team should be in place for at least two years (waived for passive index funds).

Fund performance and risk measures will be evaluated not only as of the most recent snapshot period, but also from the analysis of performance and risk on a rolling three-year basis.

MONITORING PROCEDURES

The Board acknowledges fluctuating rates of return characterize the securities markets, particularly during short-term time periods. Recognizing that short-term fluctuations may cause variations in performance, the Board intends to evaluate investment performance from a long-term perspective.

The Board is aware the ongoing review and analysis of the investment options is just as important as the due diligence process. The performance of the investment options will be monitored on an ongoing basis and it is at the Board's discretion to take corrective action by replacing a Manager if they deem it appropriate at any time.

On a timely basis, but not less than semi-annual, the Board will meet to review:

1. Manager's adherence to this IPS;
2. The performance of the various managers as compared to the weighted returns of the policy indexes indicated below:

Primary Equity Portfolio Policy Index

Index	Percentage
S&P 500	32%
MSCI US Prime Mkt Value	6%
MSCI US Mid Cap 450	7%
MSCI US Small Cap 1750	11%
MSCI US Small Cap Value	2%
MSCI EAFE	25%
MSCI EAFE Small Cap	8%
MSCI US REIT	5%
Bloomberg Commodity	4%

Secondary Equity Portfolio Policy Index

Index	Percentage
MSCI US Broad Market	58%
MSCI ACWI ex USA IMI	33%
MSCI US REIT	5%
Bloomberg Commodity	4%

Fixed Income Portfolio Policy Index:

Index	Percentage
Barclays US Agg Bond Idx	100%

3. The performance of the Portfolio's investments subject to this IPS;
 - a. Each fund's performance compared to an appropriate index and peer group as designated in this IPS.

4. Material changes in the Manager's organization and/or personnel; and,
5. Any legal, SEC and/or other regulatory agency proceedings affecting the Manager.

Portfolio Rebalancing

The portfolio will be reviewed at least quarterly to determine if the allocation is within the upper and lower limits as established in this Investment Policy. If the portfolio's allocation exceeds the upper or lower limits of this Investment Policy, the portfolio will be rebalanced to put the portfolio back within the approved ranges of this Investment Policy.

The portfolio can be rebalanced even if the allocation does not exceed the upper or lower limits at the discretion of the Discretionary Investment Manager.

Measuring Costs

The Board will review at least annually all costs associated with the management of the Portfolio's investment program, including:

1. Expense ratios of each investment against the appropriate peer group.
2. Custody/Trustee Fees: The holding of the assets, collection of the income and disbursement of payments, transaction or commission fees.
3. Discretionary investment management fee.
4. Administrative Fees: Costs to administer the Portfolio, including recordkeeping, account settlement, and allocation of assets and earnings, and (when applicable) the proper use of 12b-1 fees (or other soft dollar arrangements) to offset these fees.

The Equity Discretionary Investment Manager will provide reports with the following information to assist in the Board's review of plan fees:

1. Each funds' expense ratio compared to the Morningstar peer group.
2. Report showing all transaction fees from the custodian.
3. Report showing actual fees charged by the Investment Manager.
4. Report showing any administrative fees (if applicable) associated with the equity portfolio.

As a result of this review process, the Board may decide to add, delete or change services or service providers.

INVESTMENT POLICY REVIEW

The Manager and the Board will review this IPS periodically to determine whether stated investment objectives are still relevant and the continued feasibility of achieving the same. It is not expected that the IPS will change frequently. In particular, short-term changes in the financial markets should not require adjustments to the IPS.

Approved:

EMPLOYEE PENSION FUND BOARD OF TRUSTEES

By: _____

Date: _____

Name: _____

Title: _____

Approved:

FIDUCIARY ADVISORS, INC.
Discretionary Equity Investment Manager

By: _____

Date: _____

Name: **Todd Grizzle**

Title: **V.P. Investments**

Fixed Income Investment Guidelines

The Commerce Trust Company For City of Creve Coeur Pension Plan

July 2013

Policy

The accounts, under the supervision of The Commerce Trust Company ("Commerce"), are intended to be a high quality, diversified fixed income portfolios. Commerce will implement its stated investment philosophy/approach for the portfolio and should not deviate from it without prior approval.

Guidelines

1. The bond portfolio will be invested in fixed income securities or cash equivalents denominated in the U.S. including but not limited to: money market funds, mutual funds, certificates of deposit, commercial paper, U.S. Government and Agency securities, corporate bonds, mortgage-backed securities (including non-agency issues), asset-backed securities, sovereign and municipal obligations. Up to 10% of the account may be invested in 144A issues.
2. The bond portfolio will be adequately diversified according to the internal policies maintained by Commerce regarding individual securities and industries to avoid the undue risk inherent in non-diversified holdings..
3. The average duration of the bond portfolio is not to vary more than +/-30% of the duration of the benchmark index
4. Securities not issued by the U.S. Government or an agency of the U.S. Government should have a rating in the first four quality grades (AAA, AA, A, BBB) as established by one or more of the nationally recognized bond rating services. The bond portfolio in aggregate will maintain a minimum average quality of A- or better, on a market value weighted basis.
5. The purchase of BBB rated securities will be limited to 20% of the bond portfolio market value. Securities downgraded to below the BBB range (up to 5% of the portfolio value) may be held at the manager's discretion and must be reported to the client - amounts over 5% must be sold within 90 days.
6. The bond portfolio will maintain broad diversification with individual security positions of generally 2% or less of the portfolio at time of purchase, and a maximum position size of less than 5% (not including US Government or Agency issues).

7. Restricted Activities

- Parties-in-interest securities of Commerce.
- Futures, Option or other derivative contracts.
- Non-U.S. denominated securities or commingled funds constructed of non-U.S. denominated securities.
- Commodities.
- Lease-backs and conditional sales contracts.
- Equity real estate investment trusts.
- Naked call or put options.
- Private placement securities not identified as 144A securities.
- 144A issuers not rated as investment grade by either Moody's or Standard & Poor's.

Performance

1. The bond portfolio benchmark is the Barclays Capital Aggregate Bond Index. Over a reasonable measurement period (3 to 5 years), the fixed income portfolio's return should exceed the return of the benchmark.
2. The performance will be measured on total return basis that includes both income and changes in market value. On an ongoing basis, the portfolio will be reviewed for adherence to risk and style assignment.

Reporting Requirements

1. Investment manager will provide monthly account statements including holdings, transactions, income, current market values, and performance.
2. Investment manager shall communicate in a timely fashion any significant changes in strategy and/or investment philosophy, management, ownership, and key personnel.
3. The manager assigned to the portfolio shall be available for meetings on an as needed basis.

These guidelines, while offering restrictions at the general policy level that are in keeping with the Client's fiduciary responsibility, still allow Commerce the freedom to establish and follow the day-to-day investment strategies it considers suited to the portfolio's best interest.

If at any time Commerce believes that these guidelines are unrealistic or may be a hindrance in pursuing its investment style, the Client is to be notified in writing immediately.

Investment Policy Review

The Manager and the Board will review this IPS at least annually to determine whether stated investment objectives are still relevant and the continued feasibility of achieving the same. It is not expected that the IPS will change frequently. In particular, short-term changes in the financial markets should not require adjustments to the IPS.

EMPLOYEE PENSION FUND BOARD OF TRUSTEES

Date: 8-28-13

By: Kelly B. Sullivan

Name: Kelly B. Sullivan

Title: Chairman

THE COMMERCE TRUST COMPANY Discretionary Fixed Income Investment Manager

Date: 9/18/13

By: [Signature]

Name: John M. Basilio

Title: Vice President

Core Strategy

Analysis of Sector Limitations

July 2013

	Normal Unit Commitment (% Portfolio)	Max Exposure Per Credit (% Portfolio)	Max Sector Exposure (% Portfolio)	Additional Constraints	Constraint
Fixed Income					
U.S. Treasury Securities	Unlimited	Unlimited	Unlimited	Average Credit Quality	>=A-
Federal Agency Securities	Unlimited	Unlimited	Unlimited	Duration	±30% of Index
Agency Passsthroughs/CDOs/Other MBS	2%	5%	60%	BBB Credits	<=20%
Asset Backed Securities	2%	5%	25%	144A Issues	<=10%
Corporate Securities	2%	5%	75%	Below Investment Grade**	<=5%
Municipal Securities	2%	5%	20%		
Cash & Equivalents	2%	10%	10%		

* Index = Barclays Aggregate

** No below investment grade security may be purchased. Securities downgraded to below the BBB range (up to 5% of the portfolio value) may be held at the manager's discretion - amounts over 5% must be sold within 90 days.



city
of

CREVE COEUR

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(314) 432-6000 • Fax (314) 872-2539 • Relay MO 1-800-235-2966
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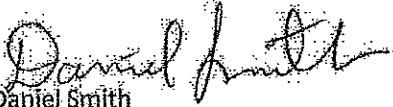
August 28, 2013

John Bascio
Commerce Bank
8000 Forsyth, Ste. 611
St. Louis MO 63105

Dear John:

Enclosed are the fixed income guidelines approved by the Pension Board and signed by the chairman. Please have Commerce Bank sign and return a copy to me for the City's records. Please contact me at (314) 872-2519 if you have any questions.

Sincerely,


Daniel Smith
Director of Finance

Enclosure

Communication: Creve Coeur IPS Commerce Fixed Income 2013 (Tabled Discussion on Investment Policy Decision)