Verus

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING: SEPTEMBER 30, 2020

Investment Performance Review for

San Mateo County Employees' Retirement Association

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3rd quarter summary

THE ECONOMIC CLIMATE

— Real GDP contracted at a -9.0% rate year-over-year in Q2 (-31.4% quarterly annualized rate)—likely the most sudden economic recession in American history.

— Europe is experiencing a drastic second wave of COVID-19 which has been sweeping across the continent. The seven-day average daily case growth of the EU and the U.K. combined rose from 4,699 to 48,807 during Q3.

— Election polls and the betting markets are indicating that Joe Biden is leading President Trump materially as we move into the final weeks pre-election. In 2016, the story was largely the same, as Clinton was expected to win up until the day before the election.

PORTFOLIO IMPACTS

— U.S. and emerging markets have recovered most losses year-to-date, while international remain negative. Global equities are now positive for 2020 despite an earnings recession and considerable economic uncertainty.

— U.S. core inflation increased to a more normal level, rising 1.7% year-over-year in August from 1.2% in June. Inflation expectations also normalized. The 10yr U.S. TIPS inflation breakeven rate recovered to 1.6%, from a low of 0.5% on March 19th. The breakeven rate of inflation is now on par with actual year-over-year inflation.

THE INVESTMENT CLIMATE

— The Federal Reserve announced a notable change to its inflation targeting approach, now aiming to achieve "inflation moderately above 2% for some time so that inflation averages 2% over time and longer-term inflation expectations remain well anchored at 2%." This was a reversal from the prior goal of achieving 2% inflation.

— The Federal Reserve maintained an accommodative tone, and most members of the FOMC held their view that short rates are likely to stay near-zero through 2023—eventually moving to 2.50% over the longer-term.

— According to FactSet, S&P 500 Q3 earnings are expected to be down -20.5%. However, earnings in Q2 beat expectations by 12.5% (-31.6% YoY vs. -44.1%). Another large positive surprise in Q3 would be welcome news to investors.

ASSET ALLOCATION ISSUES

— U.S. equities delivered +8.9% over the quarter, reaching a new high in September before giving back some gains. The S&P 500 is up +5.6% year-to-date, despite an earnings recession and considerable economic uncertainty.

— The U.S. dollar fell -3.5% in Q3, continuing a downward trend since a sudden jump in March on safe-haven buying. The dollar has now completely unwound the gains experienced during the market sell-off.

A more neutral risk positioning may be warranted in the current environment

There seems to be a high degree of uncertainty regarding the future market path

U.S. economics summary

— Real GDP contracted at a -9.0% rate year-over-year in the second quarter (-31.4% quarterly annualized rate)—likely the most sudden economic recession in American history.

— The Atlanta Fed's forecast for third quarter growth is -10.7% year-over-year (+33.8% quarterly annualized rate). This projection was based on the expectations that consumption rebounds materially, household investment picks up, businesses begin re-stocking shelves that were allowed to run empty, and supporting fiscal policy.

— The U.S. labor market partially recovered from the recent shock. Unemployment fell from 14.7% in April to 7.9% in September. A report released in September indicated 60% of temporary business closures during the pandemic were now permanent.

— Correlation between election results and market performance has been weak, and the outcome depends greatly on how the data is sliced and the timing of economic events. The S&P 500 has experienced stronger gains with a Democrat in power, though the results are skewed by extreme events such as the Great Depression.

— The NFIB Small Business Optimism Index recovered to 104.0 in Q3, which was in line with pre-pandemic levels. The survey concluded that half of the jobs lost in March and April have been recouped, but that the pace of recovery has slowed.

— The median home price increased 11.1% year-over-year in September, according to Realtor.com. U.S. housing supply has reached record tightness. In August, 3.3 months worth of homes were on the market, which was the lowest inventory ever recorded since the government began tracking this data in 1963.

	Most Recent	**12 Months Prior**
GDP *(YoY)*	(9.0%) *6/30/20*	2.0% *6/30/19*
Inflation *(CPI YoY, Core)*	1.7% *8/31/20*	2.4% *8/31/19*
Expected Inflation *(5yr-5yr forward)*	1.7% *9/30/20*	1.7% *9/30/19*
Fed Funds Target Range	0% – 0.25% *9/30/20*	1.75% – 2.00% *9/30/19*
10-Year Rate	0.7% *9/30/20*	1.7% *9/30/19*
U-3 Unemployment	7.9% *9/30/20*	3.5% *9/30/19*
U-6 Unemployment	12.8% *9/30/20*	6.9% *9/30/19*

International economics summary

— Growth contracted sharply in international developed economies in Q2. Gross domestic product in the Eurozone contracted -14.7% from the prior year, and Japanese GDP sank -9.9% over the same period, despite the deployment of fiscal support to the tune of roughly 40% of Japan's GDP.

— European officials implemented stricter social distancing controls with hopes of stymying the second wave of COVID-19 sweeping across the continent. The seven-day average daily case growth of the EU27 and the United Kingdom combined rose from 4,699 to 48,807 over the third quarter.

— The IMF revised its global growth projections for 2020 and 2021 from -4.9% and 5.4% to -4.4% and 5.2%, respectively. The IMF's model assumes social distancing controls will continue to act as a drag on growth into 2021, and that local transmission of the virus will be falling everywhere by 2023.

— Inflation remained muted globally in the third quarter, supporting arguments that the pandemic's impact has been more disinflationary than inflationary over the short term. The Eurozone's consumer price index ended the quarter -0.3% below its level from September 2019, though most of the deflationary pressures were supplied by an -8.2% decline in energy prices.

— Eurozone retail sales volumes grew 3.7% from the prior year in August (exp. 2.2%), driven by a sharp surge in online purchases and clothing sales. The vigorous rebound in consumer spending has been attributed to pent-up demand and incomes, which have been largely stable due to furlough schemes. Many analysts expect a "normalization" of retail sales in the fourth quarter, under the assumption that current spending levels are unlikely to be sustainable.

Area	**GDP (Real, YoY)**	**Inflation (CPI, YoY)**	**Unemployment**
United States	(9.0%) *6/30/20*	1.3% *8/31/20*	7.9% *9/30/20*
Eurozone	(14.7%) *6/30/20*	(0.3%) *9/30/20*	8.1% *8/31/20*
Japan	(9.9%) *6/30/20*	0.2% *9/30/20*	3.0% *8/31/20*
BRICS Nations	(3.1%) *6/30/20*	3.3% *6/30/20*	5.3% *6/30/20*
Brazil	(11.4%) *6/30/20*	2.4% *8/31/20*	13.8% *7/31/20*
Russia	(8.0%) *6/30/20*	3.3% *9/30/20*	6.4% *8/31/20*
India	(23.9%) *6/30/20*	6.7% *8/31/20*	8.5% *12/31/17*
China	4.9% *9/30/20*	2.4% *8/31/20*	3.8% *6/30/20*

Equity environment

— U.S. equities reached a new high in September before pulling back later in the month. U.S. and emerging markets have recovered most losses year-to-date, while international developed equities remain more negative. Global equities are now positive for 2020 despite an earnings recession and considerable economic uncertainty.

— Emerging market equities outperformed during the quarter (MSCI Emerging Markets +9.6%) followed by domestic equities (S&P 500 +8.9%) and international developed (MSCI EAFE +4.8%).

— According to FactSet, S&P 500 Q3 earnings are expected to be down -20.5%. However, earnings in Q2 beat expectations by 12.5% (-31.6% YoY vs. -44.1%). Another large positive surprise in Q3 would be welcome news to investors. The Cboe VIX Index moderated in June from heightened levels and remained generally rangebound during the third quarter. The VIX ended the month of September at 26, higher than the long-term average of 19.

— The U.S. dollar fell -3.5% in the third quarter, continuing a downward trend since a sudden jump in March on safe-haven buying. The dollar has now completely unwound the gains experienced during the market sell-off.

— U.S. growth stocks beat value stocks in the third quarter, continuing an incredible run of market leadership (Russell 1000 Growth +13.2%, Russell 1000 Value +5.6%), while large cap stocks outperformed small cap stocks (Russell 1000 +9.5%, Russell 2000 +4.9%).

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (S&P 500)	8.9%		15.1%	
US Small Cap (Russell 2000)	4.9%		0.4%	
US Large Value (Russell 1000 Value)	5.6%		(5.0%)	
US Large Growth (Russell 1000 Growth)	13.2%		37.5%	
International Large (MSCI EAFE)	4.8%	1.3%	0.5%	(3.1%)
Eurozone (Euro Stoxx 50)	3.5%	(0.6%)	(1.7%)	(6.8%)
U.K. (FTSE 100)	0.1%	(4.1%)	(13.9%)	(17.0%)
Japan (NIKKEI 225)	6.8%	4.7%	10.9%	10.2%
Emerging Markets (MSCI Emerging Markets)	9.6%	8.5%	10.5%	12.8%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 9/30/20

Domestic equity

U.S. equities delivered +8.9% in Q3, reaching a new high in September before pulling back later in the month. The S&P 500 is up +5.6% year-to-date, despite an earnings recession and considerable economic uncertainty.

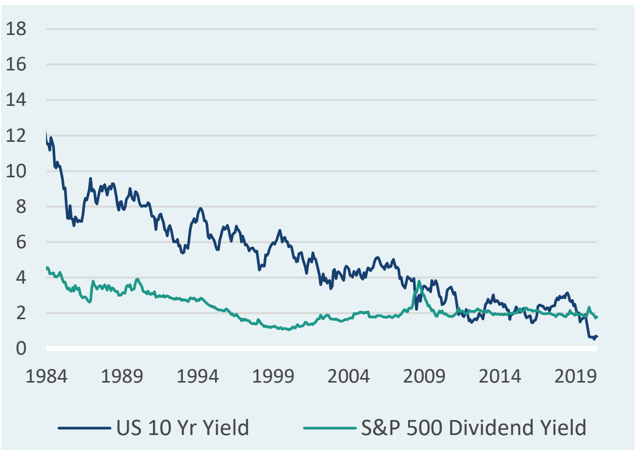
Consumer Discretionary (+15.1%) and Materials (+13.3%) sectors led in Q3, with Energy (-19.7%) delivering further underperformance. Information Technology stocks have shown impressive performance year-to-date (+27.5%) and have captured headlines as some company valuations have reached lofty levels. Large technology names have seen greater volatility recently, and exhibited a quick pullback during the first week of September. Growth stocks continue to be in vogue in the current low-growth environment.

Many investors are justifiably questioning the rationale for such strong risk asset performance, at a time when so much uncertainty exists around public health and the economy, and at a time when some business models may no longer be viable due to COVID-19.

S&P 500

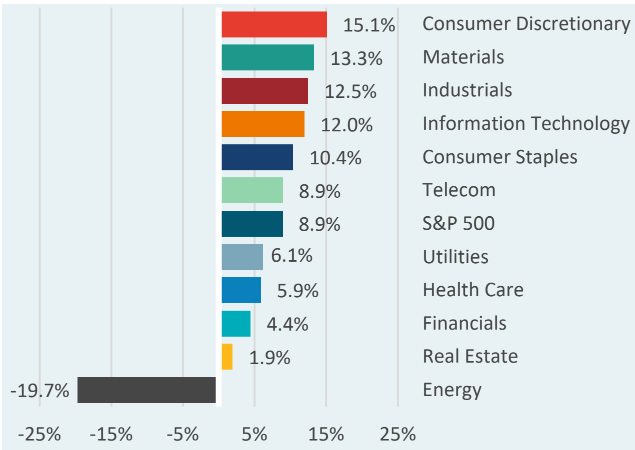
Source: Standard & Poor's, as of 9/30/20

DIVIDEND YIELD VS BOND YIELD



Source: Standard & Poor's, as of 9/30/20

Q3 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 9/30/20

Domestic equity size & style

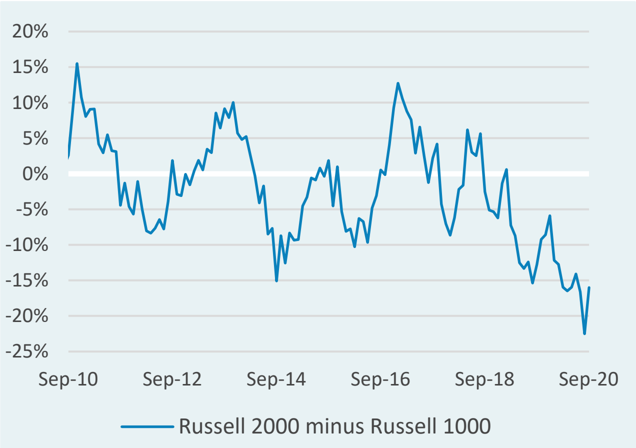
U.S. growth stocks beat value stocks during Q3, continuing an incredible run of market leadership (Russell 1000 Growth +13.2%, Russell 1000 Value +5.6%), while large cap stocks outperformed small cap stocks (Russell 1000 +9.5%, Russell 2000 +4.9%).

It seems that 2020 has been the perfect storm for value stocks. Commodities sectors were experiencing oversupply leading up to the onset of COVID-19, and the virus greatly accelerated these problems, resulting in a historic crash to prices (the Energy sector contains many value stocks). The Energy sector has delivered -45.2% over the past year. At the same time, the world has been rapidly changing in terms of technological progress, and COVID-19 appears to have accelerated these trends, contributing to extreme outperformance of the growth-tilted Information Technology sector at +47.2% over the past year.

We recognize that recent value underperformance is anomalous, but we also recognize that much of this price action has been due to global trends that may not necessarily reverse over the short-term. It is very difficult to successfully make short-term bets on style factors, as factors can be incredibly noisy and vulnerable to sector randomness. Value is historically cheap, but a catalyst for a value turnaround is not yet evident. We continue to believe that a buy-and-hold approach to style investing is the best course of action, most of the time, but we are closely watching this space.

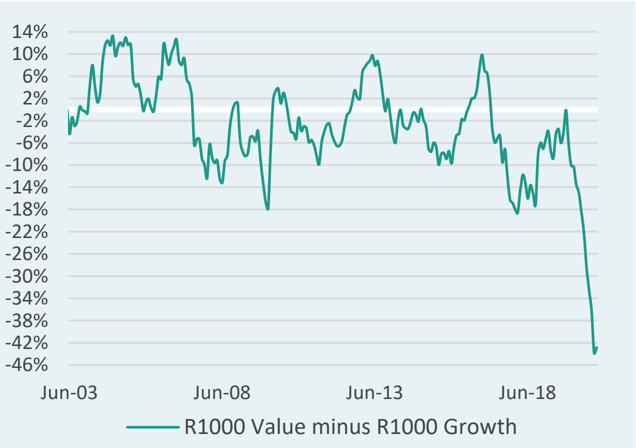
Sector performance has fueled dramatic negative performance of the value premium

SMALL CAP VS LARGE CAP (YOY)



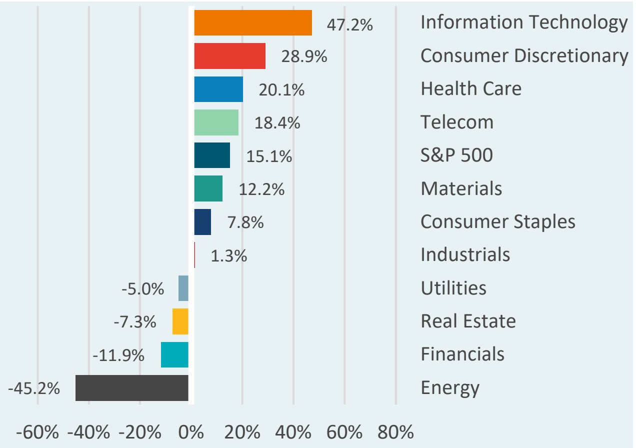
Source: FTSE, as of 9/30/20

VALUE VS GROWTH (YOY)



Source: FTSE, as of 9/30/20

S&P 500 SECTOR PERFORMANCE (1-YEAR)



Source: Standard & Poor's, as of 9/30/20

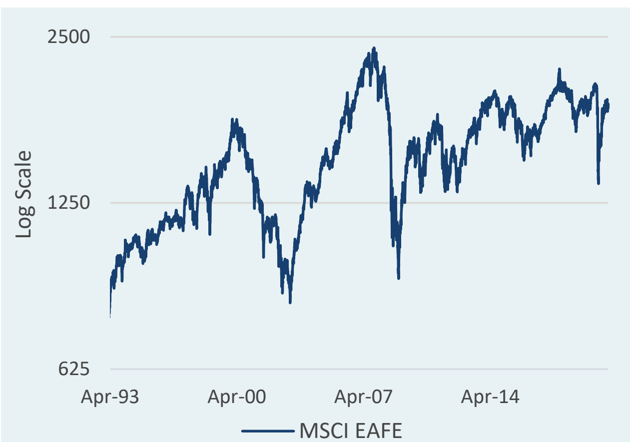
International developed equity

International equities continued to recover through Q3, though the MSCI EAFE Index (+4.8%) materially lagged the MSCI Emerging Markets Index (+9.6%) and the S&P 500 Index (+8.9%). Dollar weakness coinciding with the risk recovery through the summer was a major theme and dampened the underperformance of international developed equities relative to U.S. equities in U.S. dollar terms. The three largest currency exposures embedded in the MSCI EAFE Index—the euro (32%), the yen (26%), and the pound sterling (13%)—appreciated +4.4%, +2.2%, and +4.6% relative to the greenback over the course of the quarter.

In the second quarter, MSCI EAFE Index revenues dropped nearly -20%, and earnings dropped nearly -60%, pushing certain valuation metrics including price/earnings ratios to historic highs. Moving into Q3 earnings season, analysts are anticipating a historic turnaround in corporate profits, which could help bring valuations back to more normal levels.

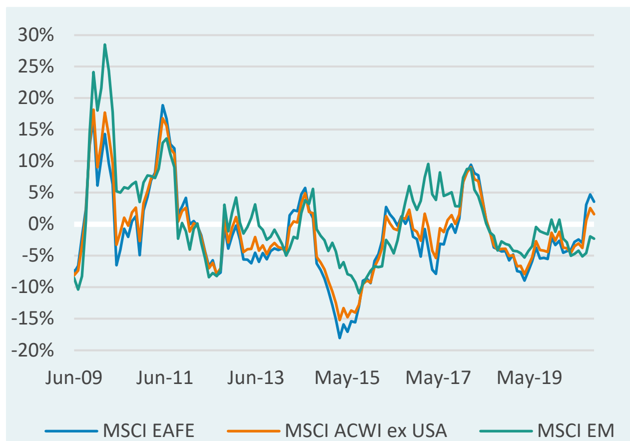
The MSCI EAFE Growth Index returned +8.4% over the third quarter, outpacing the MSCI EAFE Value Index (+1.2%) in U.S. dollar terms, extending its outperformance over the year-to-date to a staggering +23.6%.

INTERNATIONAL DEVELOPED EQUITIES



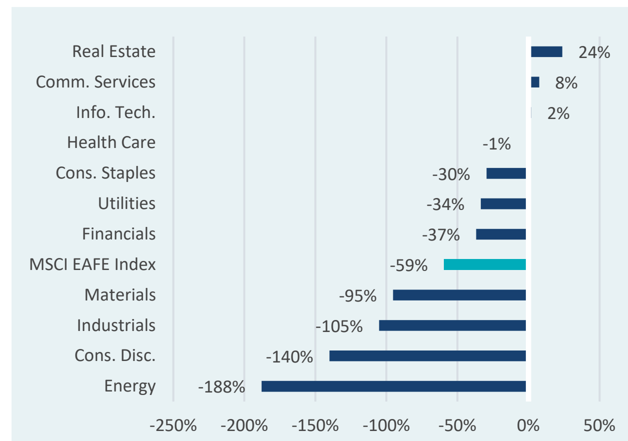
Source: MSCI, as of 9/30/20

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 9/30/20

Q2 2020 EARNINGS GROWTH – MSCI EAFE INDEX



Source: MSCI, Bloomberg, as of 9/30/20

Emerging market equity

Emerging market equities (MSCI EM +9.6%) outperformed U.S. (S&P 500 +8.9%) and international developed equities (MSCI EAFE +4.8%) over the quarter. Looking across the emerging market complex, Latin American equities underperformed (MSCI EM Latin American -1.3%) which was a continuation of a longer-term trend. Latin American stocks have drastically underperformed over the previous 10-year period (MSCI EM Latin America -5.7%, MSCI EM +2.5%).

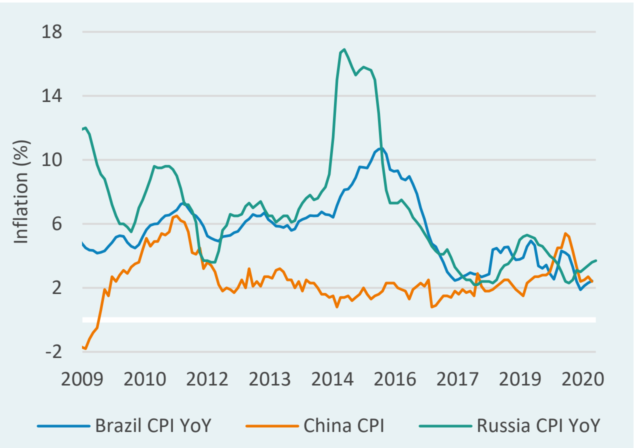
Inflation remained subdued relative to longer-term averages, due in large part to energy prices remaining under pressure. The Emerging Markets Citi Inflation Surprise Index rose from -28.8 to -6.6 over the quarter, implying that the magnitude of inflation data misses lessened between June and September.

Emerging market currencies broadly appreciated relative to the U.S. dollar, and Asian currencies outperformed. The offshore Chinese renminbi rallied 4.2% versus the greenback to ¥6.78, its strongest level since mid-2019. Part of the rally in the yuan has been attributed to FTSE Russell's recent decision to add Chinese government bonds to its World Government Bond Index. This change would take effect in 2021, and would likely result in increased foreign capital inflows.

EMERGING MARKET EQUITY

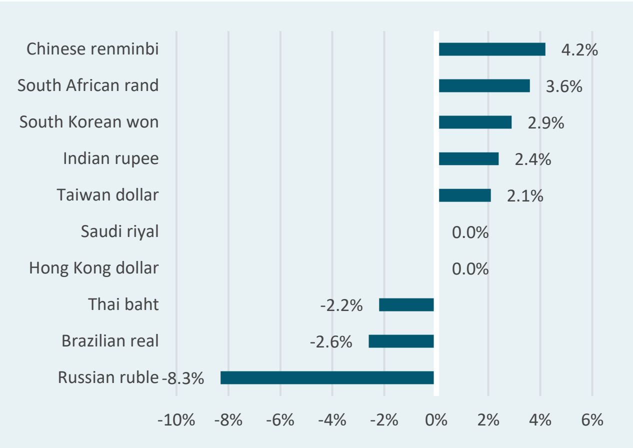
Source: MSCI, as of 9/30/20

INFLATION (YOY)



Source: Bloomberg, as of 9/30/20

Q3 CURRENCY PERFORMANCE – MSCI EM INDEX



Source: Bloomberg, as of 9/30/20

Interest rate environment

— Global interest rate levels remained extremely depressed relative to long-term averages in Q3, and the 10-year U.S. Treasury yield traded in a relatively narrow range between 0.50%-0.75%.

— The Federal Reserve maintained an accommodative tone, and most members of the Federal Open Market Committee remained of the view that short rates are likely to stay near-zero through 2023, and eventually move toward 2.50% over the longer-term. The Fed repeated that while it has the power to lend, it does not hold the power to spend, and additional fiscal support will likely be required from Congress.

— The U.S. Fed made an adjustment to its policy approach related to its inflation target. Instead of targeting stable prices, defined as 2% annual growth in personal consumption expenditures (PCE), the Fed will now implement an average inflation targeting approach aimed at achieving "inflation moderately above 2% for some time so that inflation averages 2% over time and longer-term inflation expectations remain well anchored at 2%."

— Officials at the Bank of England (BOE) reportedly warmed to the idea of pursuing a negative interest rate policy, and markets are now pricing in negative overnight rates by May 2021. Many analysts have stated that the BOE is likely to remain extremely supportive and may provide additional monetary accommodation in the form of quantitative easing before year-end.

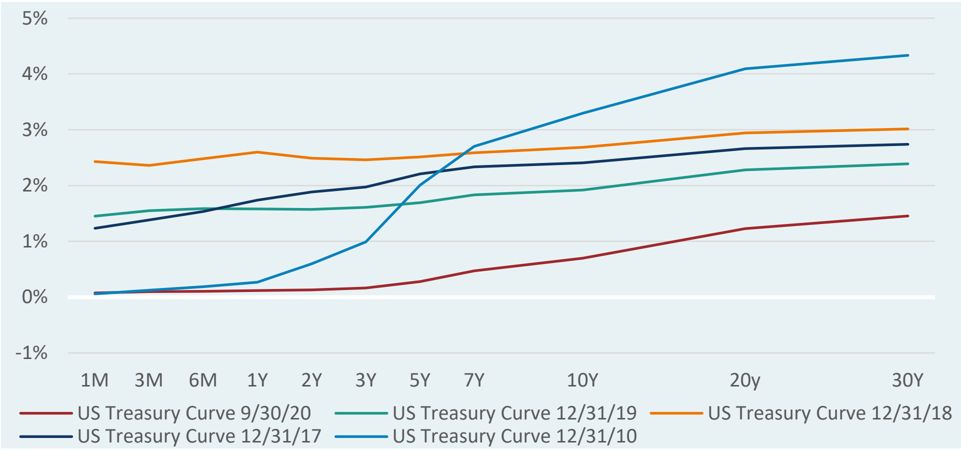
— Investors were paid for betting on longer-term reflation of growth and inflation, likely due to their expectations for further fiscal and monetary accommodation moving forward. Ten-year breakeven inflation rates recovered from 1.3% to 1.6%, and key term spreads indicated a moderate steepening in the U.S. yield curve.

Area	Short Term (3M)	10-Year
United States	0.09%	0.68%
Germany	(0.63%)	(0.52%)
France	(0.64%)	(0.24%)
Spain	(0.54%)	0.25%
Italy	(0.48%)	0.87%
Greece	(0.08%)	1.02%
U.K.	0.01%	0.23%
Japan	(0.15%)	0.01%
Australia	0.12%	0.79%
China	2.29%	3.13%
Brazil	1.93%	7.45%
Russia	4.09%	6.29%

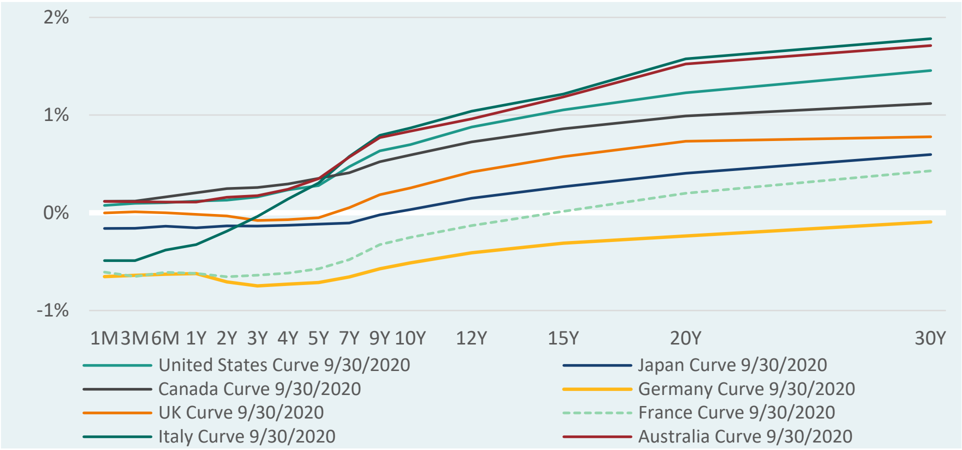
Source: Bloomberg, as of 9/30/20

Yield environment

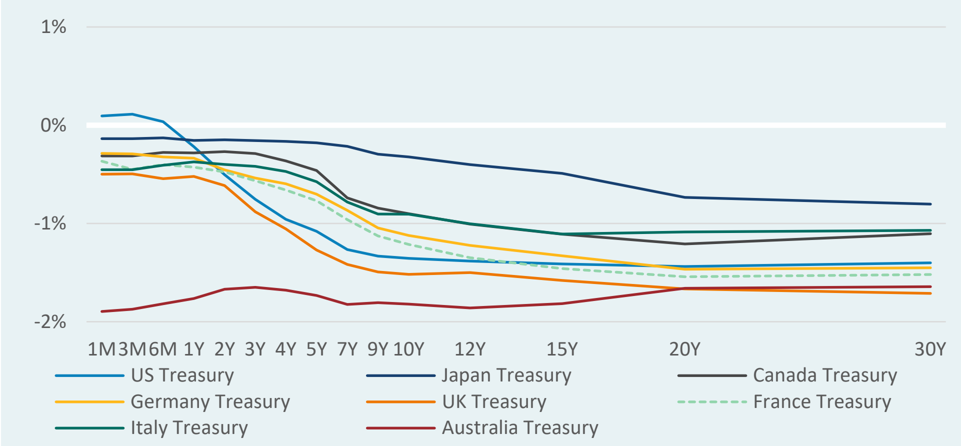
U.S. YIELD CURVE



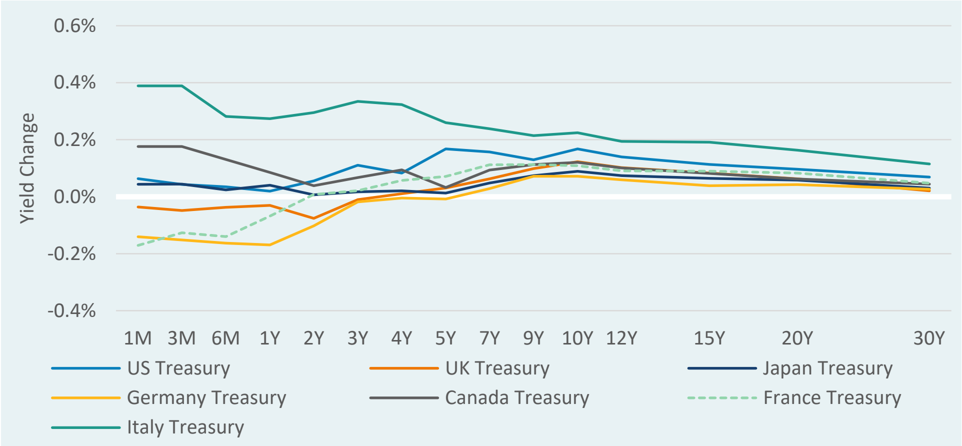
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 9/30/20

Currency

The U.S. dollar fell -3.5% in the third quarter, continuing a downward trend since a sudden jump in March on safe-haven buying. Though the dollar did show some signs of stabilization in September as equities took a step back, the Bloomberg Dollar Spot Index has now completely unwound the gains experienced during the market sell-off.

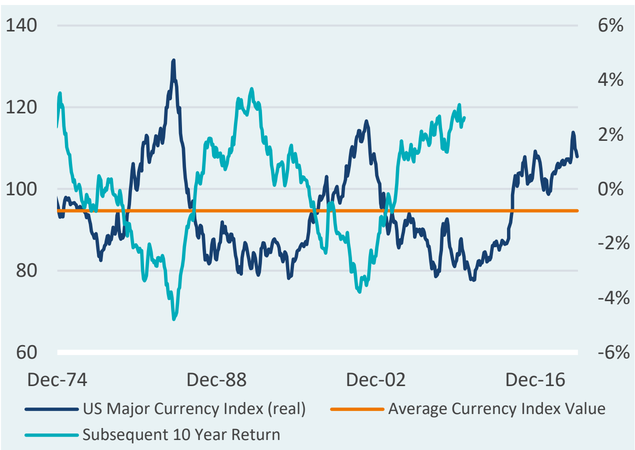
Interest rate differentials between U.S. Treasury bonds and international developed sovereign bonds have begun to separate once again. U.S. Treasury yields traded in a relatively narrow range while European yields drifted lower, perhaps as a result of speculation on further quantitative easing from the European Central Bank. A continuation of this trend could be supportive of the dollar bull case, looking ahead.

Despite the significant rally of the euro (+4.4%) relative to the greenback in Q3, the common currency remains cheap according to the OECD's purchasing power parity data. At quarter-end, the euro was -20.8% cheap relative to the U.S. dollar, which was significant but still at its least undervalued level since September 2018.

BLOOMBERG DOLLAR SPOT INDEX

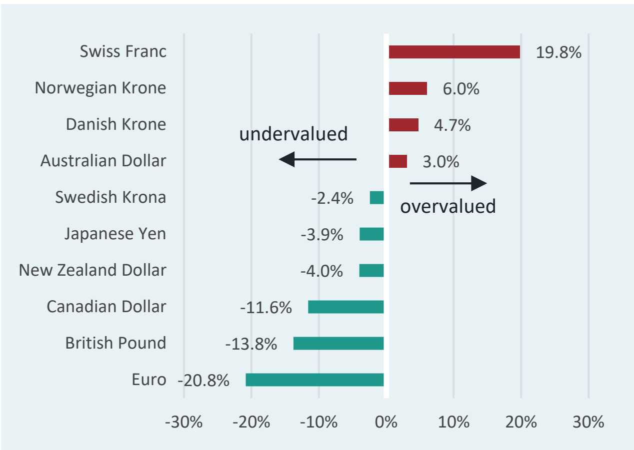
Source: Bloomberg, as of 9/30/20

USD CURRENCY LEVEL & SUBSEQUENT RETURN



Source: Federal Reserve, as of 9/30/20

G10 FX VALUATIONS – OECD PPP (VS USD)



Source: OECD, Bloomberg, as of 9/30/20

— The Total Fund, net of manager fees, returned 5.2% in the third quarter of 2020 and in the ranked 40th percentile among other public plans greater than $1 billion (median of 5.0%). It lagged the policy index return of 5.4%. The Total Fund ex Overlay returned 5.3% for the quarter. The Total Fund one-year return of 3.4% lagged the policy index return of 6.0% and ranked in the 86th percentile of its peer universe. The three-year return of 4.6% (83rd percentile) lagged the median large public plan (5.5%) and the policy index (5.9%).

— Third quarter results were enhanced by the following factors:

1. For the second quarter in a row Baillie Gifford beat the MSCI ACWI ex US (13.2 vs 6.4%). One of the particular standouts was an online cloud based commerce platform that continues to outperform because of Covid-19 concerns.

2. Western TRU gained 2.4% beating the Barclays Aggregate which rose 0.6%. Both high yield and bank loans had a positive impact on relative performance as spreads tightened meaningfully during the quarter.

— Third quarter results were hindered by the following factors:

1. Acadian Managed Vol gained 4.3% and PanAgora gained 4.5% trailing the Russell 1000 (9.5%). Underperformance was driven by an underweight to the information technology and consumer discretionary sectors.

2. QMA trailed the Russell 2000 Index (2.2% vs 4.9%.) The continued underperformance of value and smaller capitalization stocks hurt QMA's relative performance for the quarter.

	3 Mo (%)	Rank*	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Fund**	**5.2**	**40**	**-0.5**	**77**	**3.4**	**86**	**4.2**	**67**	**4.6**	**83**	**7.2**	**75**	**7.6**	**44**
Policy Index[1]	*5.4*	*31*	*1.2*	*44*	*6.0*	*51*	*5.6*	*33*	*5.9*	*39*	*8.2*	*29*	*8.2*	*24*
InvMetrics Public DB > $1B Net Median	*5.0*		*0.8*		*6.0*		*4.7*		*5.5*		*7.5*		*7.4*	
Total Fund ex Overlay	**5.3**	**38**	**-0.3**	**76**	**3.5**	**85**	**4.1**	**69**	**4.6**	**85**	**7.1**	**77**	**7.5**	**47**
Policy Index[1]	*5.4*	*31*	*1.2*	*44*	*6.0*	*51*	*5.6*	*33*	*5.9*	*39*	*8.2*	*29*	*8.2*	*24*
InvMetrics Public DB > $1B Net Median	*5.0*		*0.8*		*6.0*		*4.7*		*5.5*		*7.5*		*7.4*	
Public Equity	**7.0**	**85**	**-1.1**	**74**	**7.1**	**75**	**4.2**	**74**	**6.0**	**78**	**9.7**	**72**	**9.4**	**63**
Blended Public Equity Index[1]	*7.5*	*65*	*0.7*	*47*	*9.4*	*50*	*5.3*	*52*	*6.9*	*58*	*10.5*	*46*	*9.9*	*50*
InvMetrics All DB Total Eq Net Median	*7.9*		*0.5*		*9.3*		*5.3*		*7.3*		*10.4*		*9.9*	
US Equity	**7.2**	**83**	**0.2**	**72**	**7.8**	**78**	**5.0**	**72**	**8.9**	**67**	**11.8**	**64**	**12.2**	**55**
Blended US Equity Index[1]	*9.2*	*9*	*5.4*	*18*	*15.0*	*14*	*8.8*	*12*	*11.6*	*15*	*13.7*	*13*	*13.4*	*12*
Russell 3000	*9.2*	*9*	*5.4*	*18*	*15.0*	*14*	*8.8*	*12*	*11.6*	*15*	*13.7*	*11*	*13.5*	*11*
InvMetrics All DB US Eq Net Median	*8.2*		*2.0*		*10.6*		*6.4*		*9.8*		*12.3*		*12.3*	
Large Cap Equity	**7.5**	**54**	**1.8**	**49**	**9.4**	**51**	**6.9**	**50**	**10.4**	**44**	**13.1**	**38**	**13.0**	**40**
Russell 1000	*9.5*	*33*	*6.4*	*36*	*16.0*	*36*	*9.8*	*36*	*12.4*	*36*	*14.1*	*30*	*13.8*	*31*
eV US Large Cap Equity Net Median	*7.8*		*1.5*		*9.6*		*6.8*		*9.4*		*11.5*		*12.2*	
Acadian US MGD V	4.3	96	-6.0	95	-1.1	98	--	--	--	--	--	--	--	--
BlackRock Russell 1000	9.5	23	6.4	25	16.0	23	9.8	24	12.4	21	--	--	--	--
DE Shaw	8.1	44	2.3	53	11.3	46	5.9	68	9.8	52	13.4	25	13.9	10
PanAgora Defuseq	4.5	94	-4.6	89	-1.4	98	--	--	--	--	--	--	--	--
Russell 1000	*9.5*	*23*	*6.4*	*25*	*16.0*	*23*	*9.8*	*24*	*12.4*	*21*	*14.1*	*13*	*13.8*	*13*
eV US Large Cap Core Equity Net Median	*7.8*		*2.6*		*10.5*		*7.4*		*9.9*		*12.0*		*12.5*	

* *Total Fund and asset class aggregates are ranked in InvMetrics universes. Managers are ranked in eVest (eA) manager universes.*

** *Includes Parametric Minneapolis manager funded in August 2013.*

1. See Appendix for Benchmark History.

	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Small Cap Equity	**2.2**	**75**	**-19.5**	**77**	**-12.0**	**72**	**-11.6**	**83**	**-4.3**	**77**	**3.3**	**79**	**7.4**	**78**
Russell 2000	*4.9*	*50*	*-8.7*	*45*	*0.4*	*42*	*-4.4*	*48*	*1.8*	*44*	*8.0*	*45*	*9.9*	*47*
eV US Small Cap Equity Net Median	*4.9*		*-11.3*		*-4.0*		*-5.0*		*0.4*		*7.0*		*9.5*	
QMA US Small Cap	2.2	81	-19.5	97	-12.0	95	-11.6	97	-4.3	94	--	--	--	--
Russell 2000	*4.9*	*47*	*-8.7*	*43*	*0.4*	*39*	*-4.4*	*48*	*1.8*	*42*	*8.0*	*43*	*9.9*	*52*
eV US Small Cap Core Equity Net Median	*4.7*		*-10.6*		*-3.0*		*-5.0*		*1.0*		*7.4*		*10.1*	
Domestic Equity Overlay	8.5	--	--	--	--	--	--	--	--	--	--	--	--	--
International Equity	**6.8**	**64**	**-2.7**	**39**	**6.0**	**44**	**3.1**	**32**	**2.6**	**28**	**7.2**	**31**	**4.6**	**56**
Blended International Equity Index[1]	*5.5*	*89*	*-4.8*	*62*	*2.8*	*75*	*1.1*	*60*	*1.3*	*51*	*6.6*	*43*	*4.5*	*61*
MSCI EAFE Gross	*4.9*	*93*	*-6.7*	*82*	*0.9*	*86*	*0.1*	*77*	*1.1*	*58*	*5.8*	*71*	*5.1*	*36*
InvMetrics All DB ex-US Eq Net Median	*7.3*		*-4.2*		*5.2*		*1.8*		*1.4*		*6.4*		*4.7*	
Baillie Gifford	13.2	26	14.2	33	28.5	27	13.7	20	10.0	26	12.6	34	--	--
MSCI ACWI ex US[1]	*6.4*	*99*	*-5.1*	*97*	*3.4*	*97*	*1.3*	*97*	*1.6*	*95*	*6.7*	*96*	--	--
MSCI ACWI ex US Growth[1]	*10.2*	*69*	*7.5*	*65*	*17.9*	*65*	*9.9*	*47*	*7.7*	*60*	*10.6*	*59*	--	--
eV ACWI ex-US Growth Equity Net Median	*11.8*		*10.1*		*20.7*		*9.8*		*8.6*		*11.3*		*7.8*	
Mondrian	3.6	51	-16.2	60	-7.2	64	-4.6	30	-3.0	32	2.9	58	3.0	51
MSCI ACWI ex USA Value Gross	*2.4*	*74*	*-17.2*	*67*	*-10.3*	*89*	*-7.2*	*58*	*-4.5*	*57*	*2.8*	*62*	*2.1*	*73*
MSCI ACWI ex USA Gross	*6.4*	*30*	*-5.1*	*8*	*3.4*	*11*	*1.3*	*6*	*1.6*	*8*	*6.7*	*10*	*4.5*	*20*
eV ACWI ex-US Value Equity Net Median	*3.7*		*-14.3*		*-6.5*		*-6.7*		*-4.2*		*3.1*		*3.0*	
BlackRock MSCI ACWI EX-US IMI*	6.8	62	--	--	--	--	--	--	--	--	--	--	--	--
MSCI ACWI ex USA IMI	*6.8*	*63*	*-5.2*	*79*	*3.5*	*72*	*0.8*	*74*	*1.1*	*73*	*6.3*	*72*	*4.2*	*91*
eV ACWI ex-US All Cap Core Eq Net Median	*8.8*		*-1.4*		*8.8*		*2.4*		*3.5*		*8.0*		*5.6*	
Int'l Equity Currency Overlay	--	--	--	--	--	--	--	--	--	--	--	--	--	--
International Equity Overlay	12.7	--	--	--	--	--	--	--	--	--	--	--	--	--

* *Funded June 2020.*

1. *See Appendix for Benchmark History.*

Total Fund
Performance Summary (Net of Fees)

Period Ending: September 30, 2020

	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Fixed Income	**2.0**	**30**	**4.2**	**70**	**5.6**	**62**	**6.5**	**67**	**4.4**	**56**	**5.2**	**31**	**4.8**	**26**
Blended Fixed Income Index[1]	*1.6*	*49*	*4.9*	*60*	*5.9*	*56*	*7.9*	*39*	*5.0*	*41*	*4.9*	*38*	*3.9*	*56*
InvMetrics All DB Total Fix Inc Net Median	*1.6*		*5.6*		*6.3*		*7.2*		*4.6*		*4.5*		*3.9*	
Core Fixed	**1.3**	**--**	**6.5**	**--**	**7.4**	**--**	**8.0**	**--**	**4.8**	**--**	**4.6**	**--**	**4.3**	**--**
BBgBarc US Aggregate TR	*0.6*	*--*	*6.8*	*--*	*7.0*	*--*	*8.6*	*--*	*5.2*	*--*	*4.2*	*--*	*3.6*	*--*
BlackRock Intermediate Govt	0.3	95	6.2	58	6.2	60	6.9	59	4.2	53	--	--	--	--
BBgBarc US Govt Int TR	*0.2*	*99*	*6.0*	*63*	*6.0*	*63*	*6.7*	*61*	*4.0*	*57*	*2.8*	*59*	*2.3*	*73*
BBgBarc US Aggregate TR	*0.6*	*8*	*6.8*	*43*	*7.0*	*35*	*8.6*	*22*	*5.2*	*24*	*4.2*	*1*	*3.6*	*3*
eV US Government Fixed Inc Net Median	*0.4*		*6.4*		*6.3*		*7.6*		*4.4*		*3.4*		*3.0*	
DoubleLine*	1.8	41	--	--	--	--	--	--	--	--	--	--	--	--
BBgBarc US Aggregate TR	*0.6*	*67*	*6.8*	*2*	*7.0*	*2*	*8.6*	*2*	*5.2*	*5*	*4.2*	*16*	*3.6*	*53*
eV US Securitized Fixed Inc Net Median	*1.1*		*3.0*		*3.0*		*5.4*		*3.6*		*3.2*		*3.9*	
FIAM Bond	1.4	24	8.4	10	9.0	5	9.6	13	6.0	10	5.1	9	4.4	15
NISA Core Bond**	0.7	78	--	--	--	--	--	--	--	--	--	--	--	--
BBgBarc US Aggregate TR	*0.6*	*88*	*6.8*	*63*	*7.0*	*62*	*8.6*	*54*	*5.2*	*61*	*4.2*	*71*	*3.6*	*72*
eV US Core Fixed Inc Net Median	*1.1*		*7.2*		*7.2*		*8.7*		*5.4*		*4.4*		*3.9*	
Western TRU	2.4	2	1.9	99	5.0	96	5.9	99	3.1	99	4.5	41	--	--
3-Month Libor Total Return USD	*0.1*	*99*	*0.6*	*99*	*1.0*	*99*	*1.8*	*99*	*1.9*	*99*	*1.5*	*99*	*0.9*	*99*
BBgBarc US Aggregate TR	*0.6*	*88*	*6.8*	*63*	*7.0*	*62*	*8.6*	*54*	*5.2*	*61*	*4.2*	*71*	*3.6*	*72*
eV US Core Fixed Inc Net Median	*1.1*		*7.2*		*7.2*		*8.7*		*5.4*		*4.4*		*3.9*	
Core Fixed Income Overlay	-0.3	--	--	--	--	--	--	--	--	--	--	--	--	--

** Funded March 2020.*

*** Funded May 2020.*

1. See Appendix for Benchmark History.

	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Opportunistic Credit	**3.3**	**--**	**-0.3**	**--**	**1.9**	**--**	**3.5**	**--**	**3.8**	**--**	**6.0**	**--**	**7.7**	**--**
BBgBarc BA Intermediate HY[1]	*3.6*	*--*	*2.7*	*--*	*5.0*	*--*	*7.1*	*--*	*5.0*	*--*	*6.5*	*--*	*5.3*	*--*
AG CSF Annex Dislocation* +	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--
BBgBarc BA Intermediate HY	*3.6*	*--*	*2.7*	*--*	*5.0*	*--*	*7.1*	*--*	*5.0*	*--*	*6.5*	*--*	*5.3*	*--*
Angelo Gordon Opportunistic+	7.3	--	-12.7	--	-10.8	--	-0.9	--	8.9	--	8.3	--	--	--
Angelo Gordon STAR+	3.6	--	3.2	--	5.4	--	10.7	--	14.5	--	12.7	--	--	--
BBgBarc US Aggregate TR	*0.6*	*--*	*6.8*	*--*	*7.0*	*--*	*8.6*	*--*	*5.2*	*--*	*4.2*	*--*	*3.6*	*--*
Angelo Gordon Credit Solutions+	0.0	99	-11.2	99	--	--	--	--	--	--	--	--	--	--
BBgBarc BA Intermediate HY	*3.6*	*84*	*2.7*	*7*	*5.0*	*6*	*7.1*	*3*	*5.0*	*7*	*6.5*	*19*	*5.3*	*82*
eV US High Yield Fixed Inc Net Median	*4.5*		*0.3*		*2.6*		*4.2*		*3.6*		*5.9*		*6.0*	
Beach Point Select	6.8	3	1.2	25	4.6	12	4.8	34	5.5	2	7.4	6	--	--
BBgBarc BA Intermediate HY	*3.6*	*84*	*2.7*	*7*	*5.0*	*6*	*7.1*	*3*	*5.0*	*7*	*6.5*	*19*	*5.3*	*82*
eV US High Yield Fixed Inc Net Median	*4.5*		*0.3*		*2.6*		*4.2*		*3.6*		*5.9*		*6.0*	
Brigade Capital	6.2	5	-4.2	99	-1.2	96	-0.7	99	1.3	99	5.0	82	5.1	87
BBgBarc BA Intermediate HY	*3.6*	*84*	*2.7*	*7*	*5.0*	*6*	*7.1*	*3*	*5.0*	*7*	*6.5*	*19*	*5.3*	*82*
50% Barclays HY/ 50% Bank Loan	*4.4*	*57*	*-0.1*	*60*	*2.1*	*61*	*3.4*	*68*	*3.7*	*47*	*5.4*	*69*	*5.5*	*78*
eV US High Yield Fixed Inc Net Median	*4.5*		*0.3*		*2.6*		*4.2*		*3.6*		*5.9*		*6.0*	
PIMCO Diversified	2.7	95	1.9	15	3.6	20	6.5	5	4.7	15	--	--	--	--
Blended PIMCO Diversified Index	*2.6*	*96*	*2.0*	*14*	*3.7*	*19*	*6.9*	*4*	*4.5*	*16*	*6.0*	*43*	*5.6*	*75*
BBgBarc BA Intermediate HY	*3.6*	*84*	*2.7*	*7*	*5.0*	*6*	*7.1*	*3*	*5.0*	*7*	*6.5*	*19*	*5.3*	*82*
eV US High Yield Fixed Inc Net Median	*4.5*		*0.3*		*2.6*		*4.2*		*3.6*		*5.9*		*6.0*	
Franklin Templeton	-0.5	99	-6.2	99	-4.9	99	-1.6	99	-2.2	99	1.7	97	--	--
BBgBarc Multiverse TR	*2.7*	*69*	*5.3*	*34*	*6.0*	*39*	*6.8*	*41*	*4.0*	*48*	*4.1*	*68*	*2.5*	*72*
eV All Global Fixed Inc Net Median	*3.4*		*3.1*		*4.9*		*6.0*		*3.8*		*4.7*		*3.6*	

+ Preliminary return as of 09/30/2020.
** Funded April 2020.*
1. See Appendix for Benchmark History.

	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Private Credit	**2.4**	**--**	**3.4**	**--**	**5.3**	**--**	**6.2**	**--**	**6.9**	**--**	**--**	**--**	**--**	**--**
Cliffwater Direct Lending Index+	*3.2*	*--*	*1.4*	*--*	*3.3*	*--*	*5.6*	*--*	*6.8*	*--*	*7.6*	*--*	*9.4*	*--*
Blackrock DL Feeder IX-U+ *	0.0	99	--	--	--	--	--	--	--	--	--	--	--	--
Cliffwater Direct Lending Index	*3.2*	*90*	*1.4*	*23*	*3.3*	*26*	*5.6*	*14*	*6.8*	*1*	*7.6*	*5*	*9.4*	*1*
eV US High Yield Fixed Inc Net Median	*4.5*		*0.3*		*2.6*		*4.2*		*3.6*		*5.9*		*6.0*	
PIMCO Private Income	5.2	19	3.6	3	5.3	6	--	--	--	--	--	--	--	--
BBgBarc BA Intermediate HY	*3.6*	*84*	*2.7*	*7*	*5.0*	*6*	*7.1*	*3*	*5.0*	*7*	*6.5*	*19*	*5.3*	*82*
Cliffwater Direct Lending Index	*3.2*	*90*	*1.4*	*23*	*3.3*	*26*	*5.6*	*14*	*6.8*	*1*	*7.6*	*5*	*9.4*	*1*
eV US High Yield Fixed Inc Net Median	*4.5*		*0.3*		*2.6*		*4.2*		*3.6*		*5.9*		*6.0*	
TCP Direct Lending VIII+	1.6	99	2.6	7	4.0	18	5.7	13	6.0	2	--	--	--	--
White Oak Yield+	0.0	99	1.7	20	4.1	16	5.1	25	6.5	1	--	--	--	--
Cliffwater Direct Lending Index	*3.2*	*90*	*1.4*	*23*	*3.3*	*26*	*5.6*	*14*	*6.8*	*1*	*7.6*	*5*	*9.4*	*1*
eV US High Yield Fixed Inc Net Median	*4.5*		*0.3*		*2.6*		*4.2*		*3.6*		*5.9*		*6.0*	
Alternatives	**14.7**	**--**	**11.2**	**--**	**8.3**	**--**	**9.8**	**--**	**7.5**	**--**	**7.8**	**--**	**--**	**--**
Blended Alternatives Index[1]	*11.0*	*--*	*5.8*	*--*	*7.8*	*--*	*8.7*	*--*	*8.8*	*--*	*9.8*	*--*	*--*	*--*
Private Equity ++**	**25.5**	**1**	**31.5**	**1**	**26.7**	**4**	**26.8**	**2**	**22.4**	**5**	**18.8**	**6**	**--**	**--**
Blended Private Equity Index[1]	*21.5*	*2*	*7.1*	*23*	*9.5*	*28*	*10.7*	*30*	*11.1*	*40*	*14.5*	*17*	*15.4*	*6*
InvMetrics All DB Private Eq Net Median	*5.9*		*1.9*		*4.9*		*7.5*		*9.3*		*9.3*		*10.1*	
Hedge Fund/Absolute Return	**2.1**	**75**	**-9.8**	**87**	**-10.9**	**90**	**-7.9**	**90**	**-7.7**	**96**	**-3.5**	**93**	**--**	**--**
Libor 1 month +4%	*1.1*	*80*	*3.4*	*28*	*4.9*	*34*	*5.7*	*12*	*5.7*	*12*	*5.3*	*15*	*4.8*	*27*
InvMetrics All DB Hedge Funds Net Median	*4.4*		*-0.6*		*2.0*		*2.0*		*3.1*		*3.1*		*4.0*	

+ *Preliminary return as of 09/30/2020.*

* *Funded March 2020.*

** *Returns are one-quarter lag.*

++ *Excludes EnCap Energy Capital Fund and Sheridan Production Partners.*

1. See Appendix for Benchmark History.

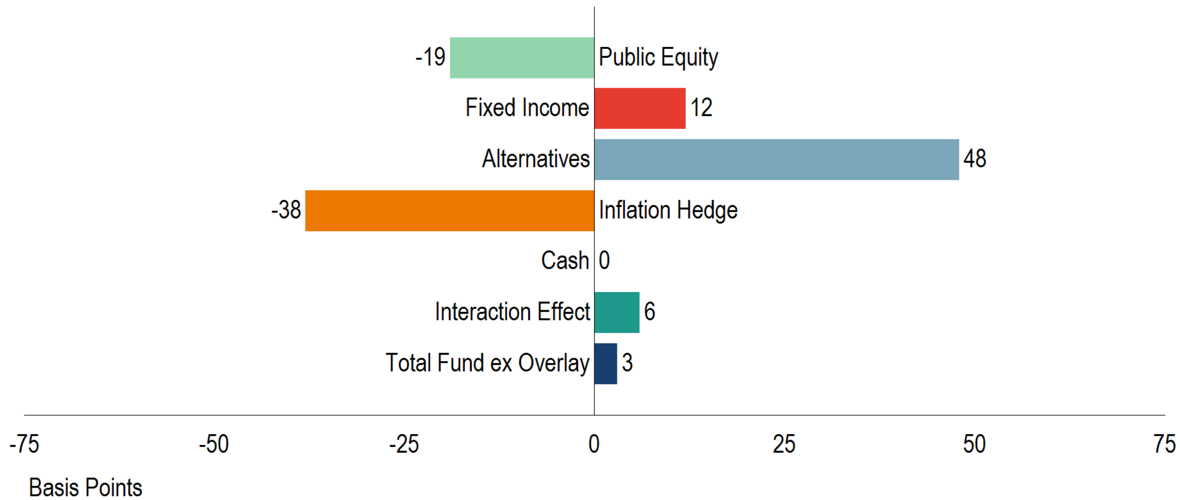
	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Aberdeen Standard GARS	4.0	44	3.9	33	5.3	37	5.3	32	2.9	47	--	--	--	--
Graham Quant Macro*	2.7	53	--	--	--	--	--	--	--	--	--	--	--	--
PIMCO MAARS Fund LP***	-0.1	80	--	--	--	--	--	--	--	--	--	--	--	--
Libor 1 month +4%	*1.1*	*68*	*3.4*	*35*	*4.9*	*39*	*5.7*	*29*	*5.7*	*26*	*5.3*	*39*	*4.8*	*47*
eV Alt All Multi-Strategy Median	*3.2*		*0.7*		*2.0*		*1.7*		*2.4*		*4.1*		*4.4*	
Inflation Hedge	**2.0**	**--**	**-10.8**	**--**	**-8.4**	**--**	**-3.5**	**--**	**-0.8**	**--**	**--**	**--**	**--**	**--**
Blended Inflation Hedge Index[1]	*4.1*	--	*-5.5*	--	*-3.1*	--	*0.4*	--	*1.9*	--	--	--	--	--
Real Estate	**0.2**	**63**	**-1.5**	**73**	**0.6**	**59**	**3.6**	**39**	**5.3**	**29**	**6.7**	**20**	**10.0**	**11**
NCREIF ODCE	*0.5*	*44*	*-0.1*	*48*	*1.4*	*45*	*3.5*	*40*	*5.2*	*33*	*6.6*	*22*	*10.3*	*7*
InvMetrics All DB Real Estate Pub Net Median	*0.4*		*-0.2*		*1.2*		*3.0*		*4.6*		*5.7*		*9.2*	
Harrison Street Core Property**	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--
NCREIF ODCE	*0.5*	--	*-0.1*	--	*1.4*	--	*3.5*	--	*5.2*	--	*6.6*	--	*10.3*	--
Invesco	-0.3	--	-3.3	--	-1.2	--	2.4	--	4.6	--	6.2	--	9.7	--
NCREIF ODCE	*0.5*	--	*-0.1*	--	*1.4*	--	*3.5*	--	*5.2*	--	*6.6*	--	*10.3*	--
Invesco US Val IV	0.9	--	-3.0	--	0.3	--	7.2	--	7.8	--	--	--	--	--
NCREIF ODCE	*0.5*	--	*-0.1*	--	*1.4*	--	*3.5*	--	*5.2*	--	*6.6*	--	*10.3*	--
NCREIF ODCE + 2%	*1.0*	--	*1.4*	--	*3.4*	--	*5.5*	--	*7.3*	--	*8.8*	--	*12.5*	--
Invesco US Val V	-0.6	--	-3.9	--	0.7	--	--	--	--	--	--	--	--	--
NCREIF ODCE	*0.5*	--	*-0.1*	--	*1.4*	--	*3.5*	--	*5.2*	--	*6.6*	--	*10.3*	--
NCREIF ODCE + 2%	*1.0*	--	*1.4*	--	*3.4*	--	*5.5*	--	*7.3*	--	*8.8*	--	*12.5*	--
PGIM RE US Debt Fund	1.3	--	3.3	--	4.7	--	5.6	--	5.9	--	--	--	--	--
NCREIF ODCE	*0.5*	--	*-0.1*	--	*1.4*	--	*3.5*	--	*5.2*	--	*6.6*	--	*10.3*	--

* *Funded February 2020.*
** *Funded January 2020.*
*** *Funded April 2020.*
1. *See Appendix for Benchmark History.*

	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Private Real Asset**	**6.3**	**--**	**-1.8**	**--**	**-1.6**	**--**	**-4.5**	**--**	**-3.7**	**--**	**4.0**	**--**	**--**	**--**
Blended Private Real Asset Index[1]	*16.9*	--	*-12.9*	--	*-15.3*	--	*-4.8*	--	*-2.9*	--	*1.3*	--	--	--
Blended Secondary CA Private RA Index[1]	*3.6*	--	*-9.6*	--	*-10.7*	--	*-4.6*	--	*0.4*	--	*2.7*	--	--	--
Public Real Assets	**4.0**	**--**	**-23.3**	**--**	**-20.0**	**--**	**-11.6**	**--**	**-7.1**	**--**	**--**	**--**	**--**	**--**
Blended Public Real Asset Index[1]	*3.9*	--	*-14.6*	--	*-9.6*	--	*-5.2*	--	*-2.5*	--	*2.0*	--	--	--
SSgA Custom Real Asset	4.0	--	-14.6	--	-9.6	--	-5.2	--	-2.4	--	--	--	--	--
SSgA Custom Real Asset Index[1]	*3.9*	--	*-14.6*	--	*-9.6*	--	*-5.2*	--	*-2.5*	--	--	--	--	--
Cash	**0.1**	**--**	**0.5**	**--**	**0.8**	**--**	**1.1**	**--**	**1.0**	**--**	**1.1**	**--**	**0.8**	**--**
91 Day T-Bills	*0.0*	--	*0.4*	--	*0.8*	--	*1.5*	--	*1.6*	--	*1.1*	--	*0.6*	--
General Account	0.2	--	1.0	--	1.5	--	3.3	--	3.2	--	2.6	--	1.5	--
Treasury & LAIF	0.2	--	1.0	--	1.7	--	2.4	--	3.0	--	2.1	--	1.5	--
91 Day T-Bills	*0.0*	--	*0.4*	--	*0.8*	--	*1.5*	--	*1.6*	--	*1.1*	--	*0.6*	--
Currency Hedge Cash Overlay	-0.1	--	--	--	--	--	--	--	--	--	--	--	--	--

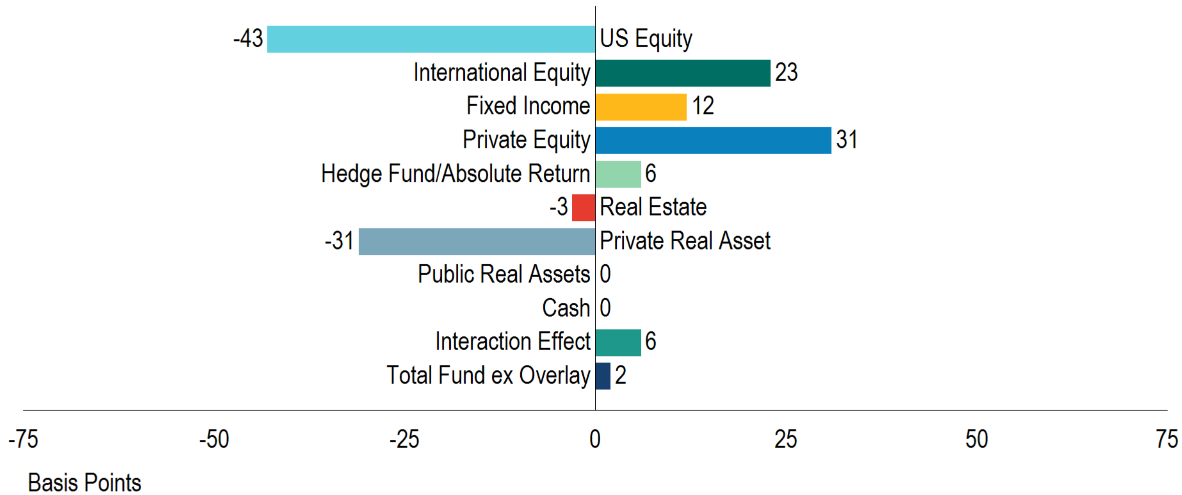
** *Returns are one-quarter lag.*

1. See Appendix for Benchmark History.



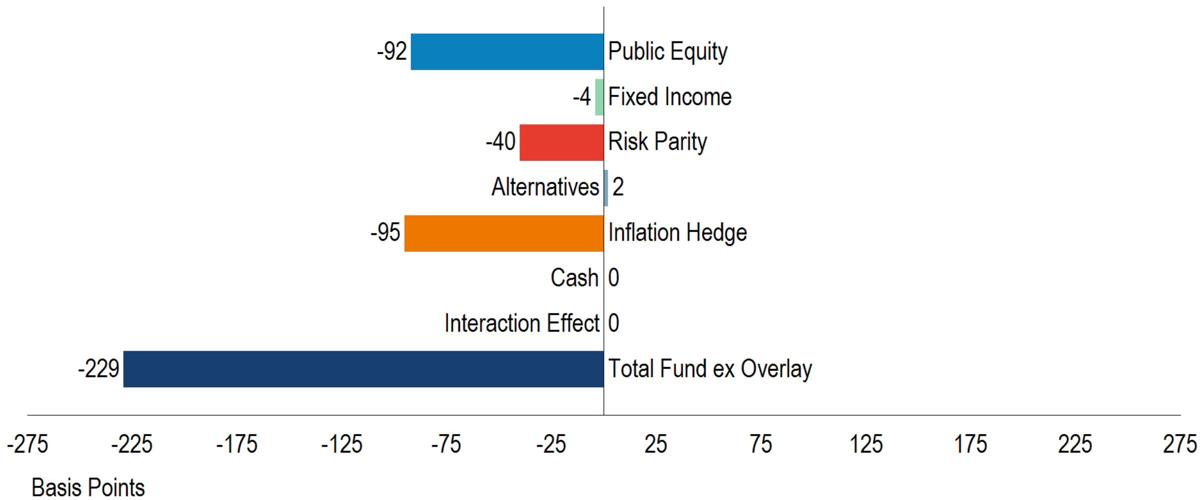
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction * Effects	Total Effects
Public Equity	7.03%	7.49%	-0.46%	-0.19%	0.01%	-0.01%	-0.18%
Fixed Income	1.98%	1.60%	0.38%	0.12%	0.02%	-0.01%	0.13%
Alternatives	14.69%	11.02%	3.68%	0.48%	-0.03%	0.02%	0.48%
Inflation Hedge	1.96%	4.14%	-2.18%	-0.38%	0.03%	0.05%	-0.29%
Cash	0.14%	0.02%	0.11%	0.00%	-0.10%	0.00%	-0.10%
Total	**5.48%**	**5.45%**	**0.03%**	**0.04%**	**-0.07%**	**0.06%**	**0.03%**

Attribution does not include the impact of the Parametric Minneapolis strategy.
** Interaction Effects include Residual Effects.*



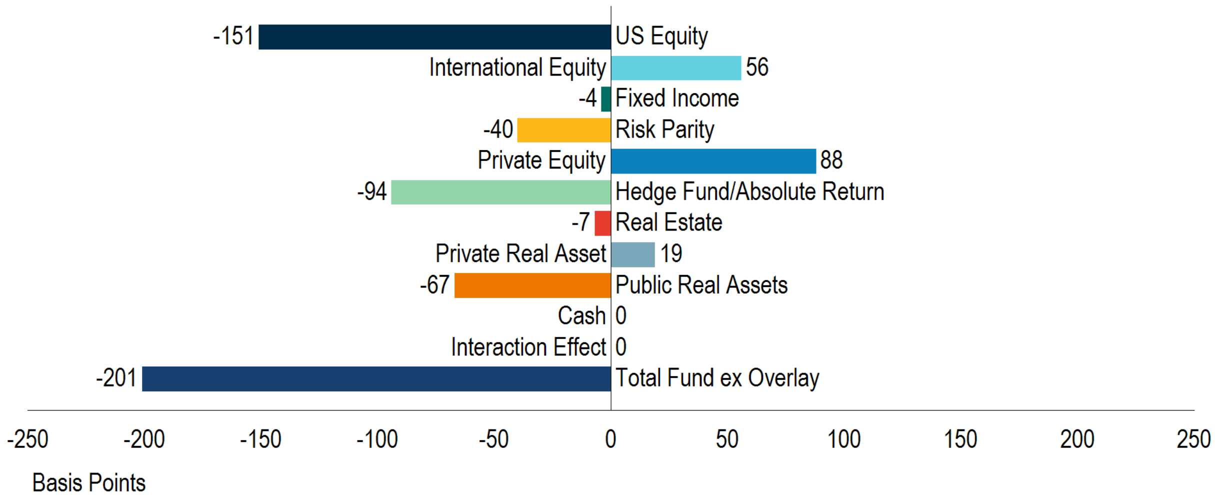
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction * Effects	Total Effects
US Equity	7.21%	9.21%	-2.00%	-0.43%	0.04%	-0.03%	-0.42%
International Equity	6.76%	5.47%	1.28%	0.23%	0.00%	0.00%	0.23%
Fixed Income	1.98%	1.60%	0.38%	0.12%	0.02%	-0.01%	0.13%
Private Equity	25.54%	21.47%	4.07%	0.31%	0.08%	-0.02%	0.37%
Hedge Fund/Absolute Return	2.11%	1.05%	1.05%	0.06%	0.03%	0.01%	0.11%
Real Estate	0.18%	0.48%	-0.30%	-0.03%	0.05%	0.01%	0.03%
Private Real Asset	6.26%	16.91%	-10.65%	-0.31%	-0.12%	0.11%	-0.32%
Public Real Assets	4.04%	3.93%	0.11%	0.00%	0.00%	0.00%	0.00%
Cash	0.14%	0.02%	0.11%	0.00%	-0.10%	0.00%	-0.10%
Total	**5.47%**	**5.45%**	**0.02%**	**-0.04%**	**0.00%**	**0.06%**	**0.02%**

Attribution does not include the impact of the Parametric Minneapolis strategy.
** Interaction Effects include Residual Effects.*



	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction * Effects	Total Effects
Public Equity	7.06%	9.37%	-2.31%	-0.92%	0.00%	0.00%	-0.92%
Fixed Income	5.59%	5.89%	-0.30%	-0.04%	0.00%	0.00%	-0.04%
Risk Parity	--	--	--	-0.40%	0.00%	0.00%	-0.40%
Alternatives	8.33%	7.82%	0.51%	0.02%	0.00%	0.00%	0.02%
Inflation Hedge	-8.43%	-3.09%	-5.34%	-0.95%	0.00%	0.00%	-0.95%
Cash	0.79%	0.82%	-0.03%	0.00%	0.00%	0.00%	0.00%
Total	**3.77%**	**6.06%**	**-2.29%**	**-2.29%**	**0.00%**	**0.00%**	**-2.29%**

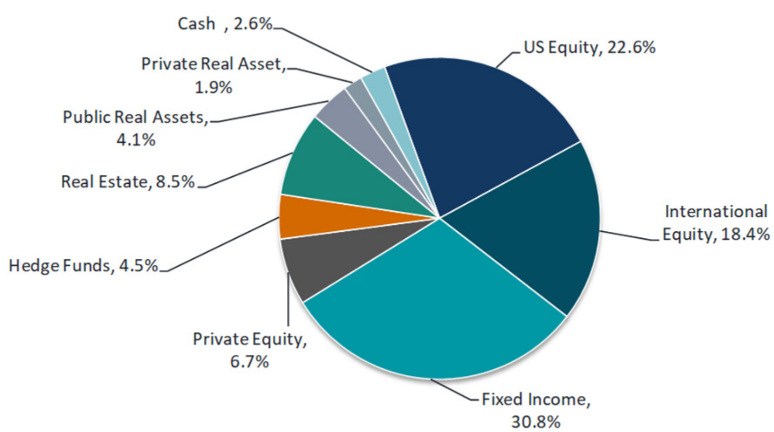
Attribution does not include the impact of the Parametric Minneapolis strategy. Risk Parity closed June 2020.
** Interaction Effects include Residual Effects.*



	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction * Effects	Total Effects
US Equity	7.84%	15.00%	-7.16%	-1.51%	0.00%	0.00%	-1.51%
International Equity	5.96%	2.78%	3.19%	0.56%	0.00%	0.00%	0.56%
Fixed Income	5.59%	5.89%	-0.30%	-0.04%	0.00%	0.00%	-0.04%
Risk Parity	--	--	--	-0.40%	0.00%	0.00%	-0.40%
Private Equity	26.68%	9.53%	17.15%	0.88%	0.00%	0.00%	0.88%
Hedge Fund/Absolute Return	-10.87%	4.90%	-15.77%	-0.94%	0.00%	0.00%	-0.94%
Real Estate	0.64%	1.39%	-0.75%	-0.07%	0.00%	0.00%	-0.07%
Private Real Asset	-1.64%	-15.26%	13.61%	0.19%	0.00%	0.00%	0.19%
Public Real Assets	-20.01%	-9.58%	-10.43%	-0.67%	0.00%	0.00%	-0.67%
Cash	0.79%	0.82%	-0.03%	0.00%	0.00%	0.00%	0.00%
Total	**3.74%**	**5.74%**	**-2.01%**	**-2.01%**	**0.00%**	**0.00%**	**-2.01%**

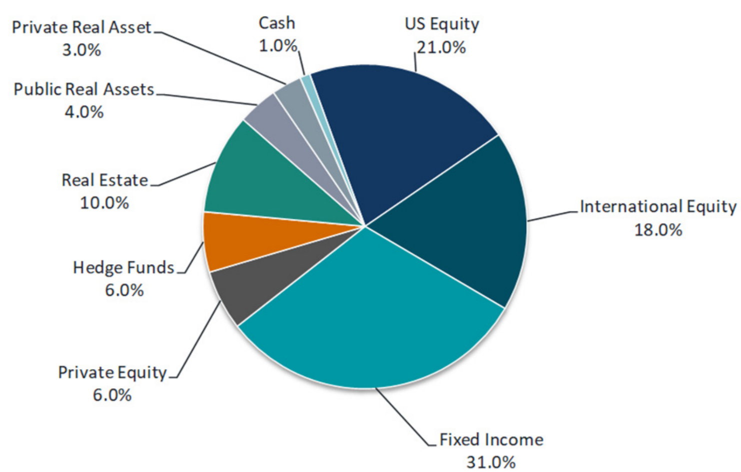
Attribution does not include the impact of the Parametric Minneapolis strategy. Risk Parity closed June 2020.
** Interaction Effects include Residual Effects.*

Current w/ Overlay

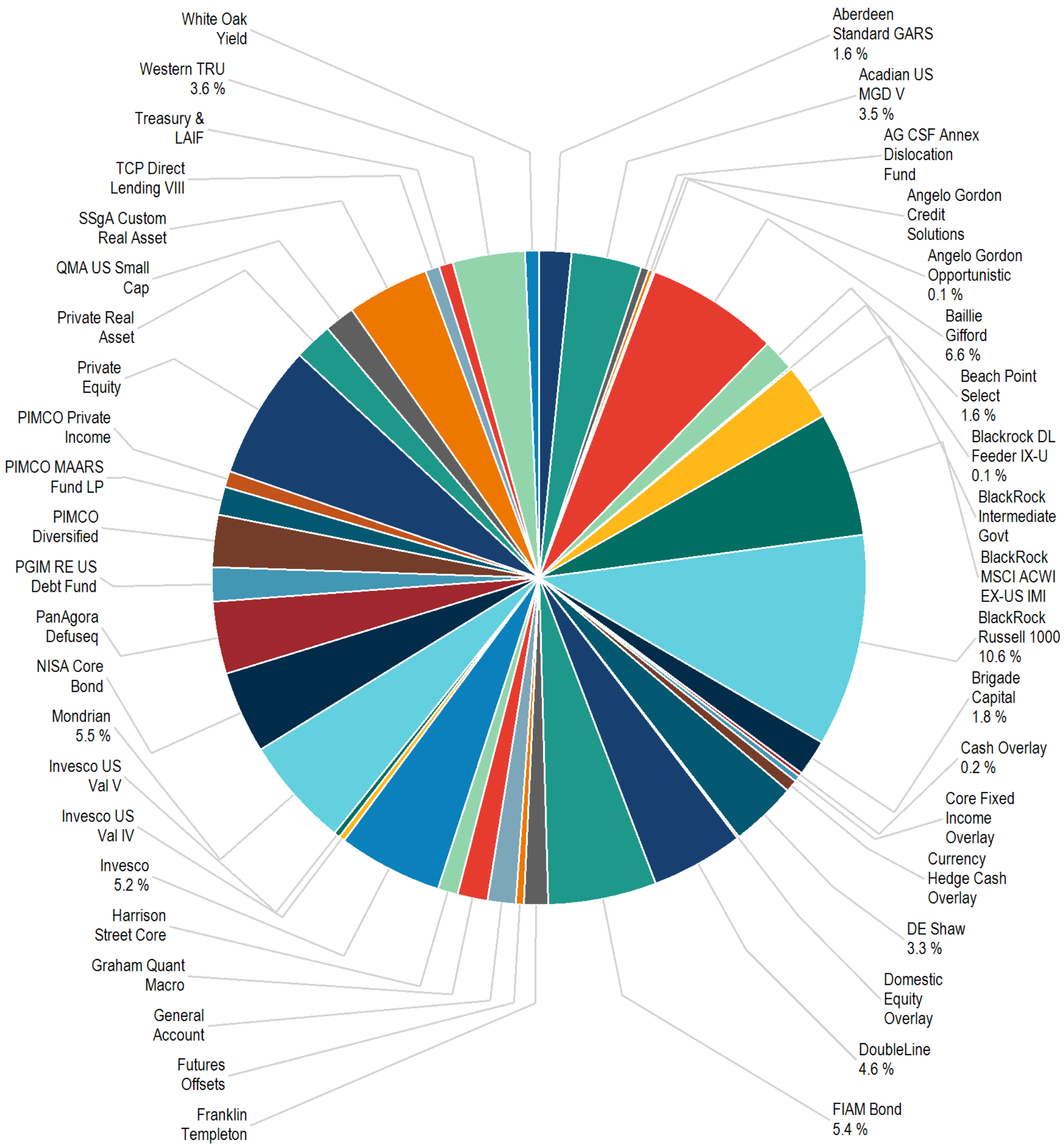


ASSET ALLOCATION	MARKET VALUE W/ OVERLAY	W/ OVERLAY	W/O OVERLAY
US Equity	1,131,615,198	22.6%	22.5%
International Equity	919,336,853	18.4%	18.3%
Fixed Income	1,538,024,061	30.8%	30.5%
Private Equity	335,485,468	6.7%	6.7%
Hedge Funds	223,116,179	4.5%	4.5%
Real Estate	425,334,711	8.5%	8.5%
Public Real Assets	203,918,226	4.1%	4.1%
Private Real Asset	95,333,057	1.9%	1.9%
Cash	128,849,763	2.6%	3.0%
TOTAL	**5,001,013,515**	**100.0%**	**100.0%**

Target



ASSET ALLOCATION	W/ OVERLAY	TARGET	DIFF
US Equity	22.6%	21.0%	1.6%
International Equity	18.4%	18.0%	0.4%
Fixed Income	30.8%	31.0%	-0.2%
Private Equity	6.7%	6.0%	0.7%
Hedge Funds	4.5%	6.0%	-1.5%
Real Estate	8.5%	10.0%	-1.5%
Public Real Assets	4.1%	4.0%	0.1%
Private Real Asset	1.9%	3.0%	-1.1%
Cash	2.6%	1.0%	1.6%
TOTAL	**100.0%**	**100.0%**	**0.0%**



	Actual	Actual
Aberdeen Standard GARS	$78,492,828	2%
Acadian US MGD V	$174,992,295	3%
AG CSF Annex Dislocation Fund	$17,978,102	0%
Angelo Gordon Credit Solutions	$9,700,337	0%
Angelo Gordon Opportunistic	$2,879,174	0%
Angelo Gordon STAR	$211,353	0%
Baillie Gifford	$329,635,411	7%
Beach Point Select	$77,889,968	2%
Blackrock DL Feeder IX-U	$4,753,490	0%
BlackRock Intermediate Govt	$140,550,445	3%
BlackRock MSCI ACWI EX-US IMI	$311,680,886	6%
BlackRock Russell 1000	$532,255,322	11%
Brigade Capital	$89,504,254	2%
Cash Overlay	$11,498,624	0%
Core Fixed Income Overlay	$12,652,281	0%
Currency Hedge Cash Overlay	$32,203,196	1%
DE Shaw	$163,999,014	3%
Domestic Equity Overlay	$5,352,620	0%
DoubleLine	$231,147,601	5%
FIAM Bond	$267,857,425	5%
Franklin Templeton	$58,277,798	1%
Futures Offsets (SMCE02001)	-$19,955,241	0%
General Account	$70,060,133	1%
Graham Quant Macro	$74,391,329	1%
Harrison Street Core Property	$50,554,625	1%
International Equity Overlay	$1,950,340	0%
Invesco	$260,402,629	5%
Invesco US Val IV	$14,716,665	0%
Invesco US Val V	$14,838,498	0%
Mondrian	$276,070,216	6%
NISA Core Bond	$204,317,463	4%
PanAgora Defuseq	$180,991,039	4%
PGIM RE US Debt Fund	$84,822,294	2%
PIMCO Diversified	$128,548,915	3%
PIMCO MAARS Fund LP	$70,232,023	1%
PIMCO Private Income	$41,573,262	1%
Private Equity	$335,485,468	7%
Private Real Asset	$95,333,057	2%
QMA US Small Cap	$74,024,907	1%
SSgA Custom Real Asset	$203,918,226	4%
TCP Direct Lending VIII	$34,316,197	1%
Transition Account	$5,028	0%
Treasury & LAIF	$35,038,023	1%
Western TRU	$181,681,972	4%
White Oak Yield	$34,184,024	1%
Total	**$5,001,013,515**	**100%**

Statistics Summary

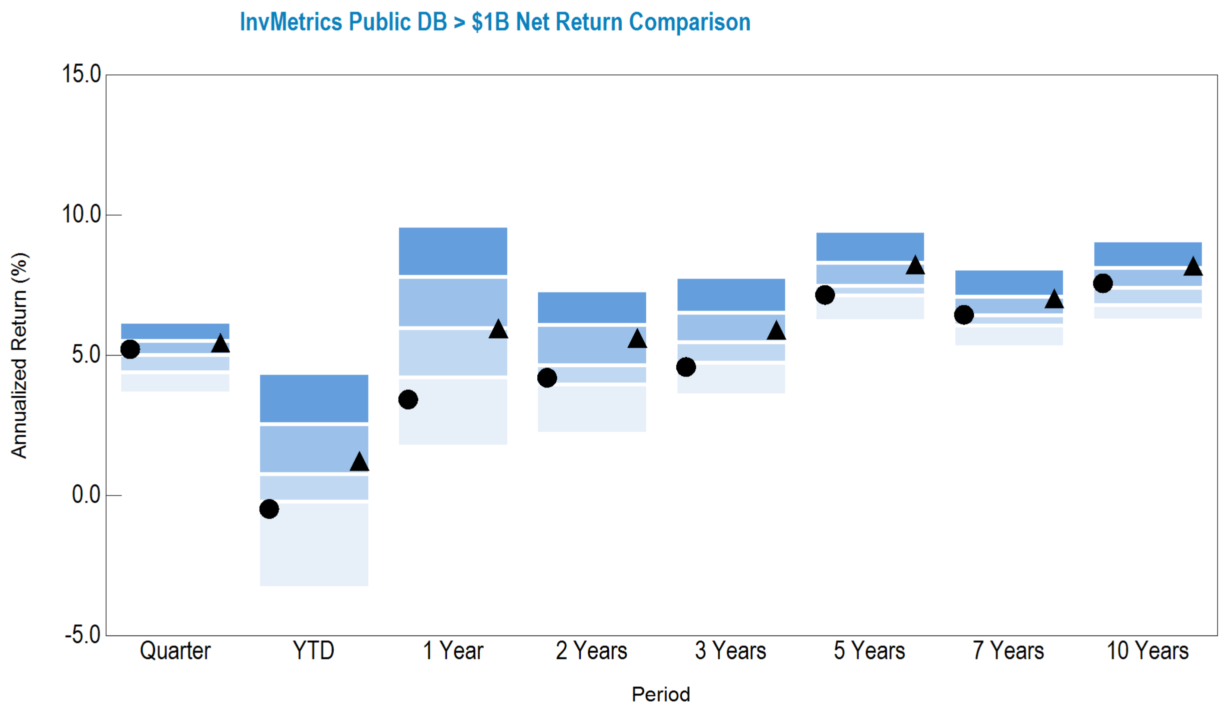
3 Years

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	4.6%	83	9.1%	44	0.3	76	-0.8	76	1.6%	62
Policy Index	5.9%	39	8.9%	29	0.5	40	--	--	0.0%	1
InvMetrics Public DB > $1B Net Median	5.5%	--	9.7%	--	0.4	--	-0.4	--	1.3%	--

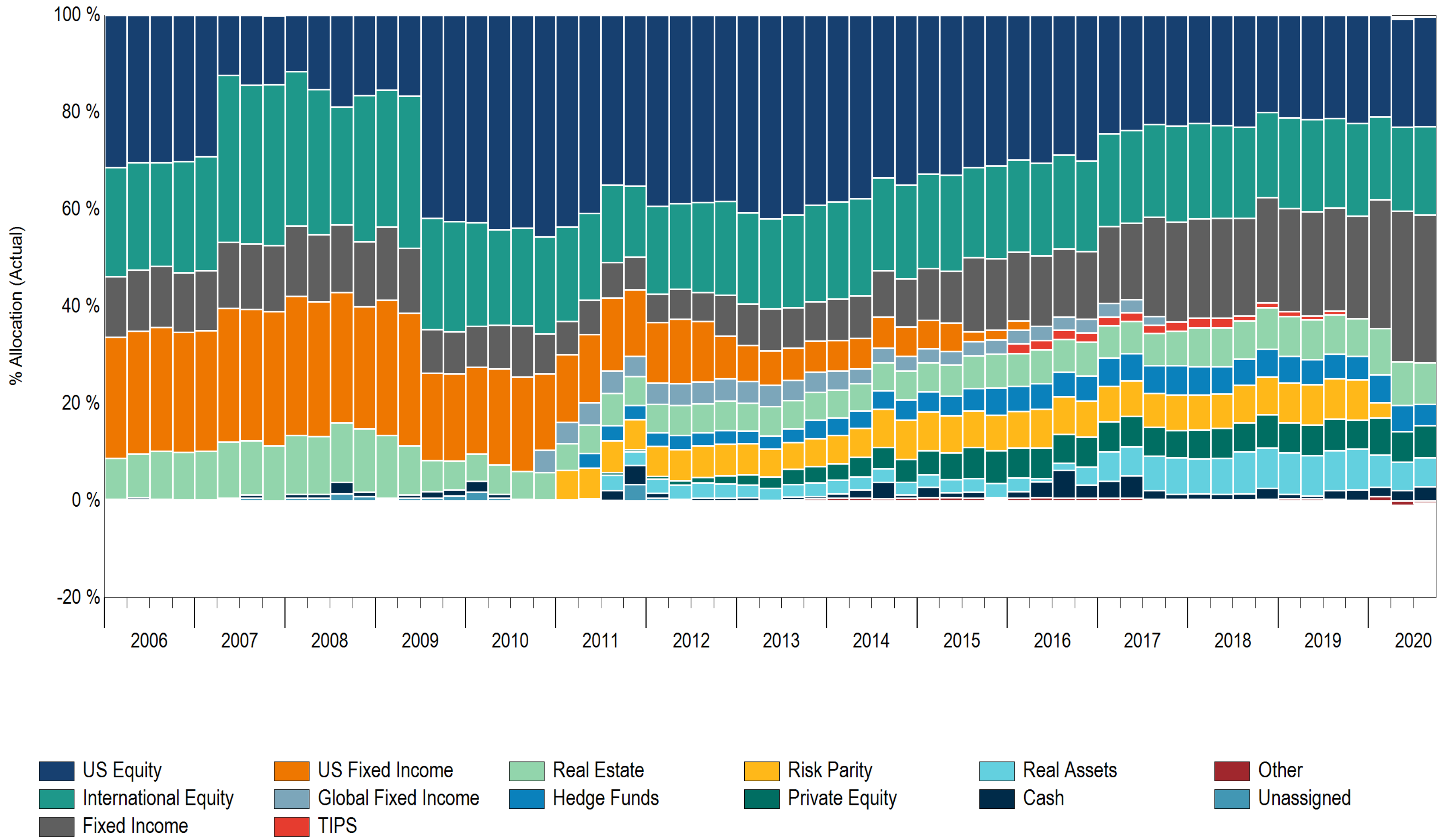
Statistics Summary

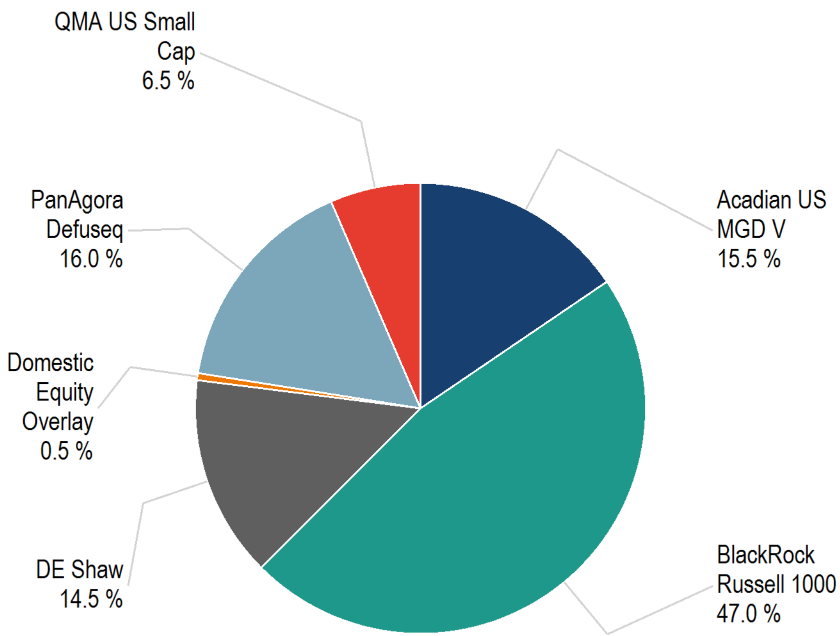
5 Years

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	7.2%	75	7.9%	45	0.8	58	-0.7	85	1.5%	60
Policy Index	8.2%	29	7.9%	45	0.9	35	--	--	0.0%	1
InvMetrics Public DB > $1B Net Median	7.5%	--	8.3%	--	0.8	--	-0.2	--	1.3%	--



	Quarter		YTD		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
Return (Rank)																
5th Percentile	6.2		4.4		9.6		7.3		7.8		9.4		8.1		9.1	
25th Percentile	5.5		2.6		7.8		6.1		6.5		8.3		7.1		8.1	
Median	5.0		0.8		6.0		4.7		5.5		7.5		6.4		7.4	
75th Percentile	4.4		-0.2		4.2		4.0		4.8		7.2		6.1		6.8	
95th Percentile	3.7		-3.3		1.7		2.2		3.6		6.2		5.3		6.3	
# of Portfolios	77		77		77		77		77		75		74		69	
● **Total Fund**	5.2	(40)	-0.5	(77)	3.4	(86)	4.2	(67)	4.6	(83)	7.2	(75)	6.5	(50)	7.6	(44)
▲ **Policy Index**	5.4	(31)	1.2	(44)	6.0	(51)	5.6	(33)	5.9	(39)	8.2	(29)	7.0	(30)	8.2	(24)


100 %
80 %
60 %
40 %
20 %
0 %
-20 %
% Allocation (Actual)
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
US Equity
International Equity
Fixed Income
US Fixed Income
Global Fixed Income
TIPS
Real Estate
Hedge Funds
Risk Parity
Private Equity
Real Assets
Cash
Other
Unassigned



	Actual $	Actual %	Manager Contribution to Excess Return %
Acadian US MGD V	$174,992,295	15.5%	-0.8%
BlackRock Russell 1000	$532,255,322	47.0%	0.0%
DE Shaw	$163,999,014	14.5%	-0.2%
PanAgora Defuseq	$180,991,039	16.0%	-0.7%
QMA US Small Cap	$74,024,907	6.5%	-0.2%
Domestic Equity Overlay	$5,352,620	0.5%	0.0%
Actual vs. Policy Weight Difference			-0.1%
Total	**$1,131,615,198**	**100.0%**	**-2.0%**

Statistics Summary

3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
US Equity	8.9%	18.0%	0.4	-2.1	1.3%
Blended US Equity Index	11.6%	18.4%	0.5	--	0.0%
Russell 3000	11.6%	18.4%	0.5	--	0.0%

Statistics Summary

3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Large Cap Equity	10.4%	17.4%	0.5	-1.3	1.5%
Russell 1000	12.4%	18.2%	0.6	--	0.0%
BlackRock Russell 1000	12.4%	18.2%	0.6	0.4	0.0%
Russell 1000	12.4%	18.2%	0.6	--	0.0%
DE Shaw	9.8%	18.1%	0.5	-1.2	2.2%
Russell 1000	12.4%	18.2%	0.6	--	0.0%
Small Cap Equity	-4.3%	24.8%	-0.2	-1.6	3.9%
Russell 2000	1.8%	23.0%	0.0	--	0.0%
QMA US Small Cap	-4.3%	24.8%	-0.2	-1.6	3.9%
Russell 2000	1.8%	23.0%	0.0	--	0.0%

Statistics Summary

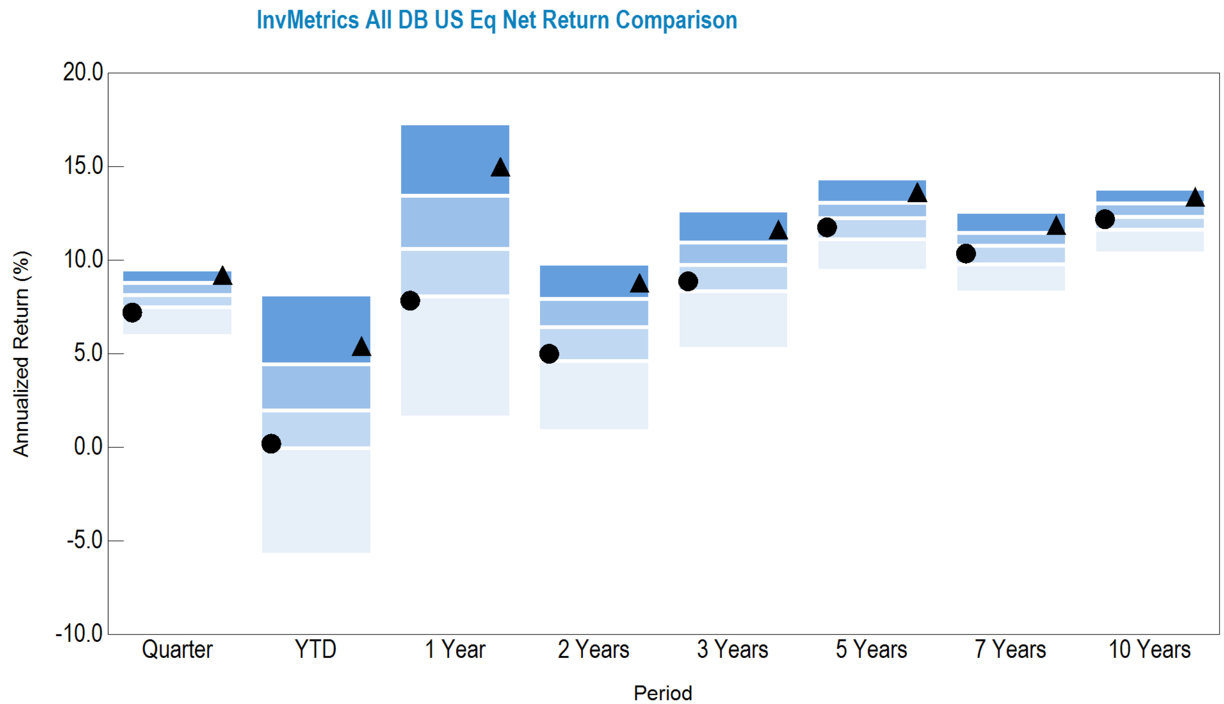
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
US Equity	11.8%	15.2%	0.7	-1.6	1.2%
Blended US Equity Index	13.7%	15.5%	0.8	--	0.0%
Russell 3000	13.7%	15.5%	0.8	0.1	0.3%

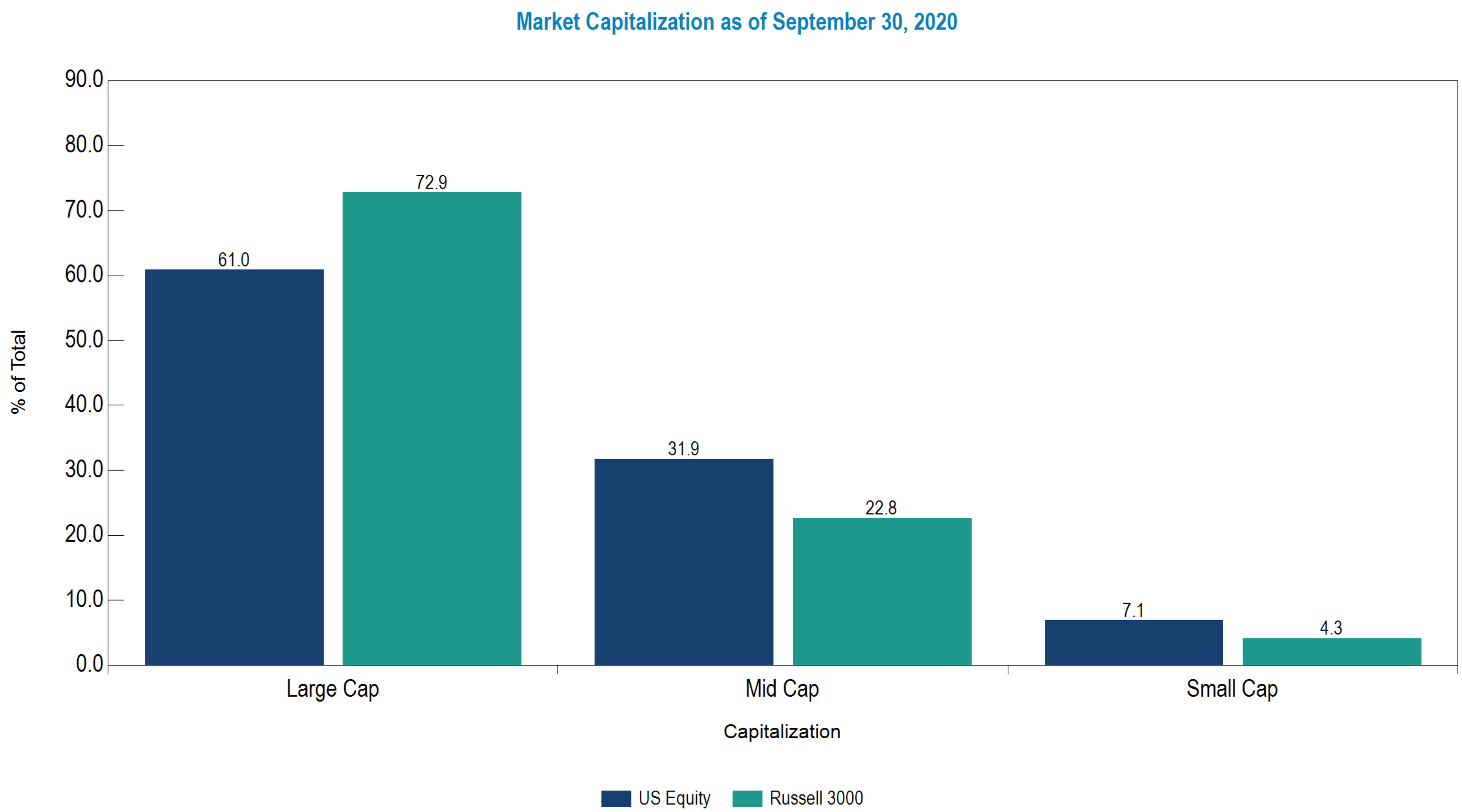
Statistics Summary

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Large Cap Equity	13.1%	14.7%	0.8	-0.7	1.5%
Russell 1000	14.1%	15.2%	0.9	--	0.0%
DE Shaw	13.4%	15.4%	0.8	-0.3	2.3%
Russell 1000	14.1%	15.2%	0.9	--	0.0%
Small Cap Equity	3.3%	21.3%	0.1	-1.3	3.6%
Russell 2000	8.0%	20.1%	0.3	--	0.0%



	Quarter		YTD		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
	Return (Rank)															
5th Percentile	9.5		8.2		17.3		9.8		12.6		14.4		12.6		13.8	
25th Percentile	8.8		4.5		13.5		7.9		11.0		13.1		11.5		13.0	
Median	8.2		2.0		10.6		6.4		9.8		12.3		10.8		12.3	
75th Percentile	7.5		0.0		8.1		4.6		8.4		11.1		9.8		11.7	
95th Percentile	5.9		-5.7		1.6		0.9		5.3		9.4		8.3		10.4	
# of Portfolios	561		561		561		555		548		523		480		374	
● **US Equity**	7.2	(83)	0.2	(72)	7.8	(78)	5.0	(72)	8.9	(67)	11.8	(64)	10.4	(62)	12.2	(55)
▲ **Blended US Equity Index**	9.2	(9)	5.4	(18)	15.0	(14)	8.8	(12)	11.6	(15)	13.7	(13)	11.9	(14)	13.4	(12)



See appendix for the market capitalization breakpoints.

Characteristics

	Portfolio	Russell 3000
Number of Holdings	2,955	3,034
Weighted Avg. Market Cap. ($B)	277.1	376.0
Median Market Cap. ($B)	2.9	1.5
Price To Earnings	22.2	24.0
Price To Book	3.9	4.3
Price To Sales	2.0	2.2
Return on Equity (%)	2.2	2.8
Yield (%)	1.7	1.6

Top Holdings

APPLE INC	3.7%
MICROSOFT CORP	3.6%
AMAZON.COM INC	2.8%
FACEBOOK INC	1.2%
PROCTER & GAMBLE CO (THE)	1.2%
VERIZON COMMUNICATIONS INC	1.2%
ALPHABET INC	1.1%
JOHNSON & JOHNSON	1.1%
BERKSHIRE HATHAWAY INC	0.8%
COSTCO WHOLESALE CORP	0.8%

Best Performers

	Return %
SERES THERAPEUTICS INC (MCRB)	494.7%
VIVINT SOLAR INC (VSLR)	327.8%
TUPPERWARE BRANDS CORP (TUP)	324.4%
EASTMAN KODAK CO (KODK)	295.5%
BIG 5 SPORTING GOODS CORP (BGFV)	292.1%
SUNRUN INC (RUN)	290.8%
NEW FORTRESS ENERGY INC (NFE)	239.6%
FORTE BIOSCIENCES INC (FBRX)	232.7%
OWENS & MINOR INC. (OMI)	229.6%
KIRKLAND'S INC (KIRK)	203.0%

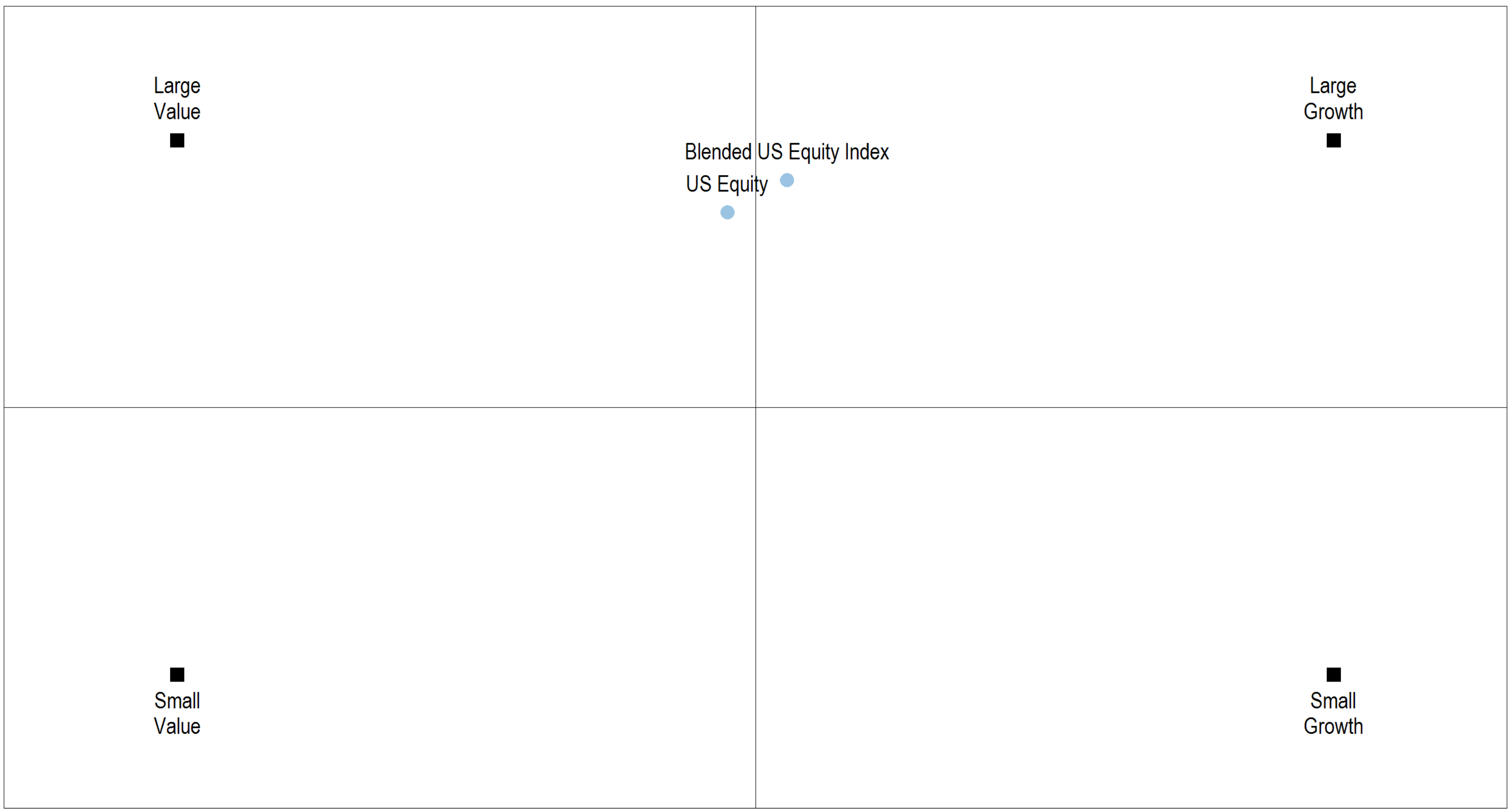
Worst Performers

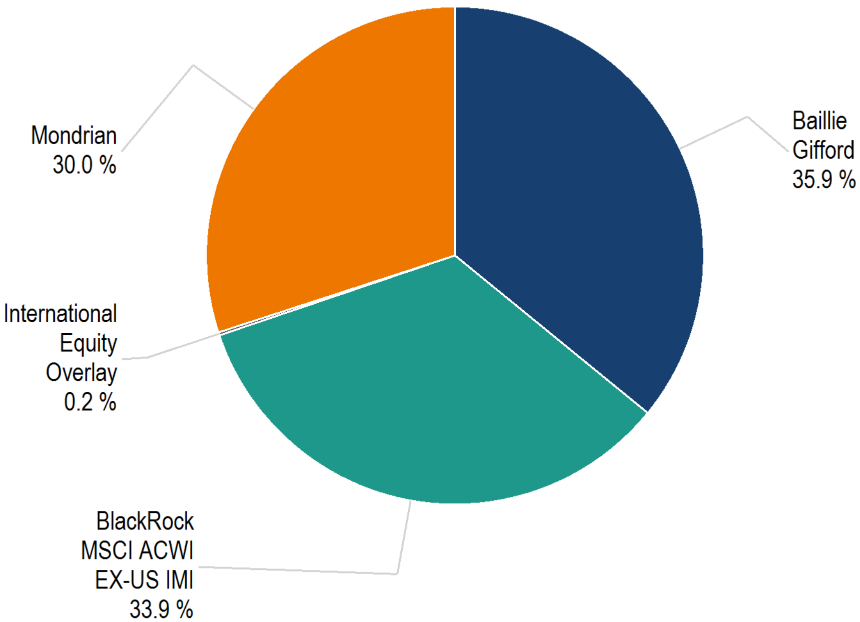
	Return %
COVIA HOLDINGS CORP (CVIAQ)	-97.5%
ENDOLOGIX INC (ELGXQ)	-96.7%
CHAPARRAL ENERGY INC (CHAPQ)	-95.2%
SHILOH INDUSTRIES INC (SHLOQ)	-94.1%
NOBLE HOLDING CORPORATION PLC (NEBLQ)	-93.1%
CALIFORNIA RESOURCES CORP (CRCQQ)	-92.9%
TAILORED BRANDS INC (TLRDQ)	-89.2%
VALARIS PLC (VALPQ)	-86.7%
SATSUMA PHARMACEUTICALS INC (STSA)	-86.5%
ATLAS FINANCIAL HOLDINGS INC (AFHIF)	-82.8%

US Equity Performance Attribution vs. Russell 3000

	Attribution Effects					Returns		Sector Weights	
	Total Effects		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.1%		0.1%	0.0%	0.0%	-16.5%	-18.9%	2.6%	2.6%
Materials	-0.1%		-0.1%	0.0%	0.0%	7.8%	11.9%	3.6%	2.7%
Industrials	-0.1%		-0.1%	0.0%	0.0%	10.3%	11.9%	7.9%	8.8%
Consumer Discretionary	-0.2%		-0.1%	-0.1%	0.0%	17.9%	19.0%	10.4%	11.4%
Consumer Staples	-0.1%		-0.1%	0.0%	0.0%	9.2%	10.4%	9.0%	6.2%
Health Care	-0.2%		-0.2%	0.0%	0.0%	5.2%	6.5%	15.7%	14.7%
Financials	-0.2%		-0.2%	0.0%	0.0%	1.3%	3.4%	9.9%	10.6%
Information Technology	-0.5%		-0.5%	-0.1%	0.1%	10.1%	11.9%	23.7%	26.7%
Communication Services	-0.2%		-0.2%	0.0%	0.0%	7.4%	9.2%	9.3%	9.9%
Utilities	-0.1%		0.0%	-0.1%	0.0%	3.6%	5.0%	4.5%	2.8%
Real Estate	-0.1%		-0.1%	0.0%	0.0%	-1.7%	1.3%	3.2%	3.6%
Cash	0.0%		0.0%	0.0%	0.0%	0.0%	--	0.1%	0.0%
Unclassified	0.0%		0.0%	0.0%	0.0%	8.7%	--	0.1%	0.0%
Portfolio	**-1.8%**	**=**	**-1.6% +**	**-0.2% +**	**0.0%**	**7.5%**	**9.3%**	**100.0%**	**100.0%**

U.S. Effective Style Map





	Actual $	Actual %	Manager Contribution to Excess Return %
Baillie Gifford	$329,635,411	35.9%	2.4%
Mondrian	$276,070,216	30.0%	0.3%
BlackRock MSCI ACWI EX-US IMI	$311,680,886	33.9%	0.0%
International Equity Overlay	$1,950,340	0.2%	0.0%
Actual vs. Policy Weight Difference			-1.5%
Total	**$919,336,853**	**100.0%**	**1.3%**

Statistics Summary

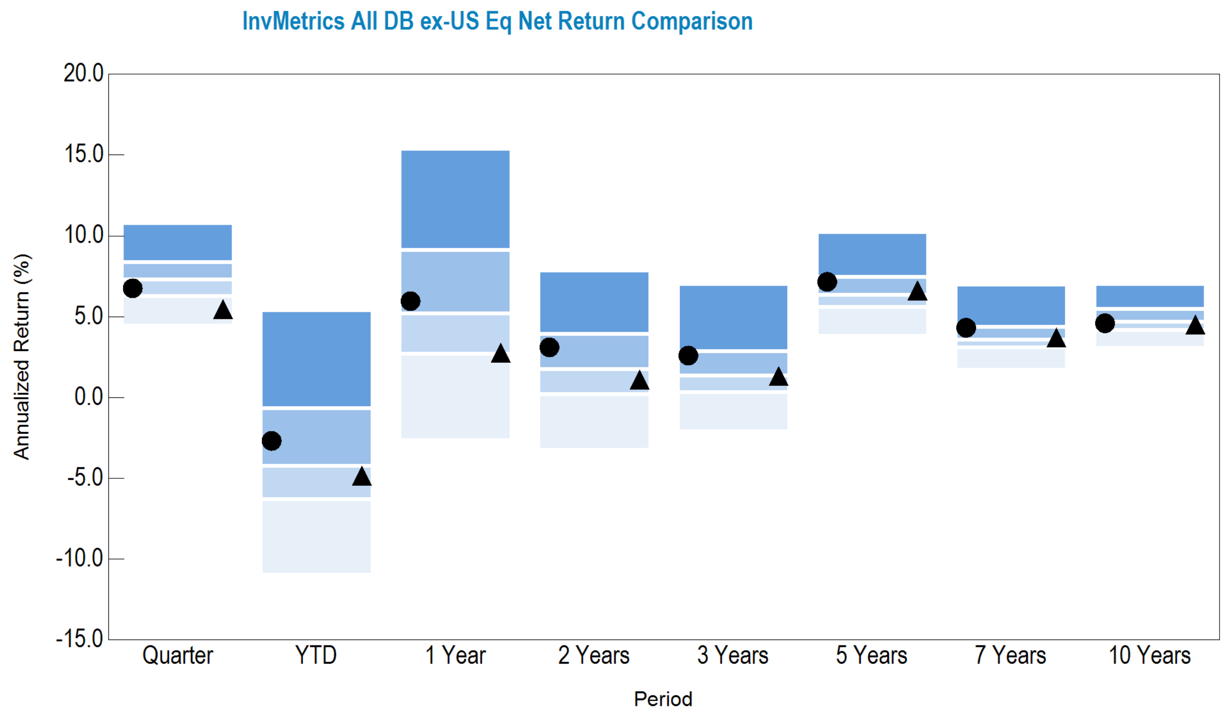
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
International Equity	2.6%	15.5%	0.1	0.9	1.4%
Blended International Equity Index	1.3%	15.6%	0.0	--	0.0%
Developed Markets	2.4%	16.2%	0.0	0.3	2.2%
MSCI ACWI ex USA Gross	1.6%	16.2%	0.0	--	0.0%
Baillie Gifford	10.0%	17.6%	0.5	1.4	5.9%
MSCI ACWI ex US	1.6%	16.2%	0.0	--	0.0%
Mondrian	-3.0%	17.0%	-0.3	0.7	2.2%
MSCI ACWI ex USA Value Gross	-4.5%	17.6%	-0.3	--	0.0%

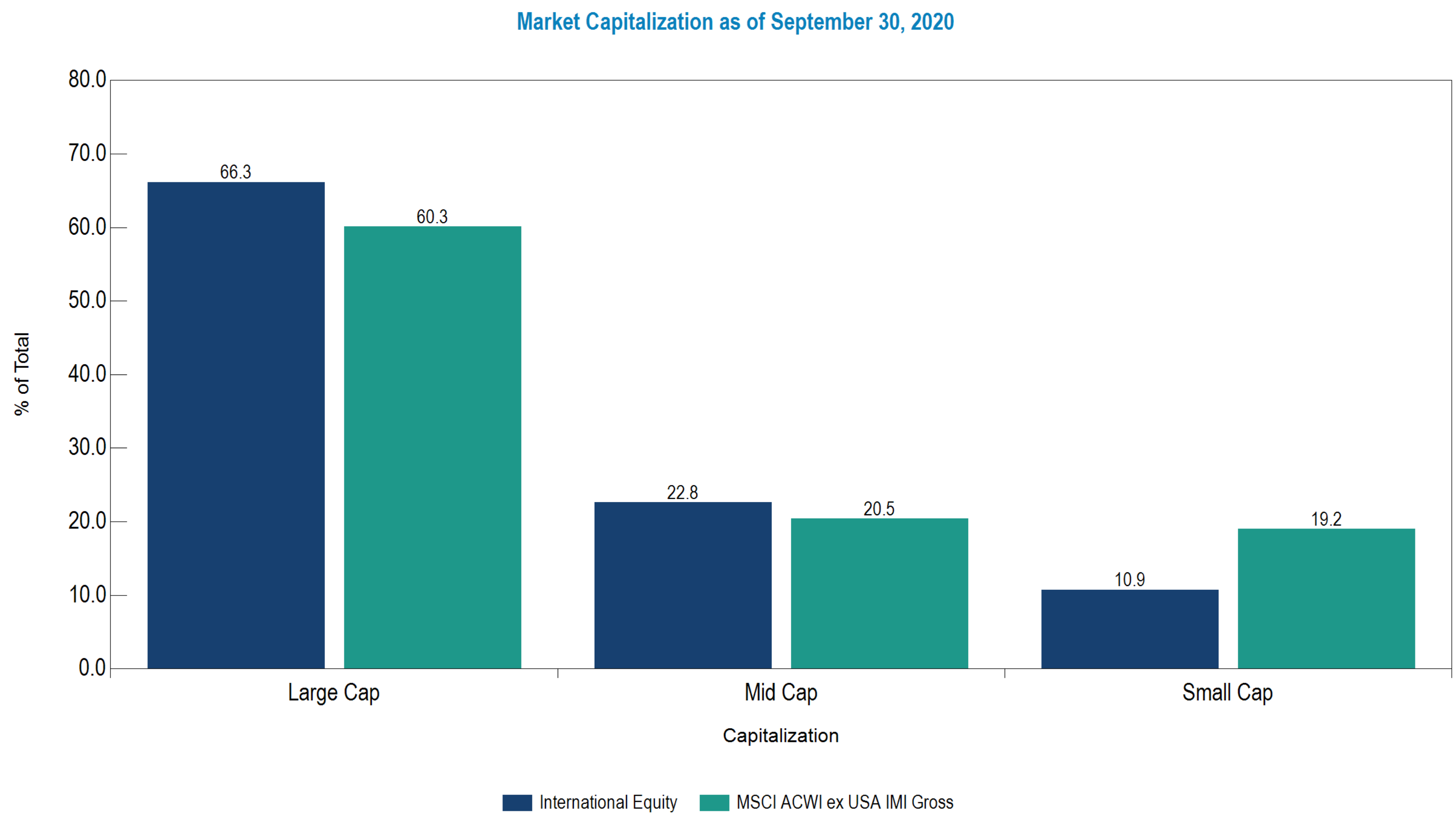
Statistics Summary

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
International Equity	7.2%	14.0%	0.4	0.3	1.6%
Blended International Equity Index	6.6%	14.1%	0.4	--	0.0%
Baillie Gifford	12.6%	16.0%	0.7	1.1	5.5%
MSCI ACWI ex US	6.7%	14.5%	0.4	--	0.0%
Mondrian	2.9%	14.8%	0.1	0.0	3.9%
MSCI ACWI ex USA Value Gross	2.8%	15.8%	0.1	--	0.0%



	Return (Rank)															
5th Percentile	10.8		5.4		15.4		7.8		7.0		10.2		7.0		7.0	
25th Percentile	8.4		-0.6		9.1		4.0		2.9		7.5		4.4		5.5	
Median	7.3		-4.2		5.2		1.8		1.4		6.4		3.6		4.7	
75th Percentile	6.3		-6.3		2.7		0.2		0.4		5.6		3.1		4.2	
95th Percentile	4.5		-10.9		-2.6		-3.2		-2.1		3.8		1.7		3.1	
# of Portfolios	361		361		361		358		350		334		306		237	
● International Equity	6.8	(64)	-2.7	(39)	6.0	(44)	3.1	(32)	2.6	(28)	7.2	(31)	4.3	(30)	4.6	(56)
▲ Blended International Equity Index	5.5	(89)	-4.8	(62)	2.8	(75)	1.1	(60)	1.3	(51)	6.6	(43)	3.7	(47)	4.5	(61)



See appendix for the market capitalization breakpoints.

Characteristics

	Portfolio	MSCI ACWI ex USA IMI Gross
Number of Holdings	6,447	6,427
Weighted Avg. Market Cap. ($B)	80.3	84.8
Median Market Cap. ($B)	1.8	1.7
Price To Earnings	19.0	16.6
Price To Book	3.0	2.8
Price To Sales	1.2	1.1
Return on Equity (%)	9.3	9.8
Yield (%)	2.3	2.6

Top Holdings

ALIBABA GROUP HOLDING LTD	2.0%
SHOPIFY INC	1.5%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1.4%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1.3%
ZALANDO SE	1.0%
UNITED OVERSEAS BANK LTD	1.0%
ASML HOLDING NV	1.0%
SARTORIUS SHS.PREF.	0.9%
TENCENT HOLDINGS LTD	0.9%
SAMSUNG ELECTRONICS CO LTD	0.9%

Best Performers

	Return %
SHINPOONG PHARMACEUTICAL CO LTD	331.5%
RAKUS CO LTD	305.4%
HAINAN MEILAN INTERNATIONAL AIRPORT CO LTD	300.6%
GENEONE LIFE SCIENCE INC	215.2%
KOREA UNITED PHARMACEUTICALS INC	211.2%
INNER MONGOLIA JUNZHENG ENERGY & CHEMICAL GROUP CO LTD	195.7%
LAURUS LABS LTD	184.5%
DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO LTD	183.4%
S2 RESOURCES LTD	179.1%
NIO INC (NIO)	174.9%

Worst Performers

	Return %
FINABLR PLC	-94.3%
BELLUS HEALTH INC (BLU.)	-77.9%
ALTUS PROPERTY VENTURES INC	-76.7%
PT SITARA PROPERTINDO	-75.5%
SOULBRAIN (KO:TEC)	-72.9%
PHARMALLY INTERNATIONAL HOLDING CO LTD	-64.9%
NORWEGIAN AIR SHUTTLE (N:NAS)	-64.3%
EUROPCAR MOBILITY GROUP S.A	-63.7%
AURORA CANNABIS INC (ACB.)	-62.3%
DBV TECHNOLOGIES S.A.	-59.1%

International Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

	Attribution Effects					Returns		Sector Weights	
	Total Effects		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0%		-0.1%	0.1%	0.0%	-9.3%	-7.0%	4.0%	4.6%
Materials	-0.2%		0.1%	-0.1%	-0.1%	12.8%	11.0%	4.5%	8.0%
Industrials	0.6%		0.4%	0.0%	0.1%	13.0%	9.6%	13.8%	12.3%
Consumer Discretionary	0.4%		0.0%	0.3%	0.1%	16.3%	16.1%	15.3%	12.5%
Consumer Staples	-0.2%		-0.2%	0.0%	-0.1%	2.6%	4.9%	9.4%	9.7%
Health Care	0.0%		0.1%	0.0%	-0.1%	4.7%	4.6%	9.9%	10.4%
Financials	0.0%		-0.2%	0.2%	0.0%	-0.5%	0.5%	14.4%	17.1%
Information Technology	0.6%		0.3%	0.2%	0.1%	15.7%	13.4%	13.9%	10.8%
Communication Services	0.1%		0.0%	0.0%	0.1%	5.2%	4.7%	9.4%	7.1%
Utilities	0.0%		-0.1%	0.0%	0.0%	0.9%	2.8%	2.7%	3.5%
Real Estate	0.0%		0.0%	0.1%	0.0%	3.2%	4.0%	1.6%	4.0%
Cash	0.0%		0.0%	0.0%	0.0%	0.0%	--	0.8%	0.0%
Unclassified	0.0%		0.0%	0.0%	0.0%	13.6%	--	0.0%	0.0%
Portfolio	**1.1%**	**=**	**0.2% +**	**0.6% +**	**0.2%**	**7.9%**	**6.8%**	**100.0%**	**100.0%**

Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

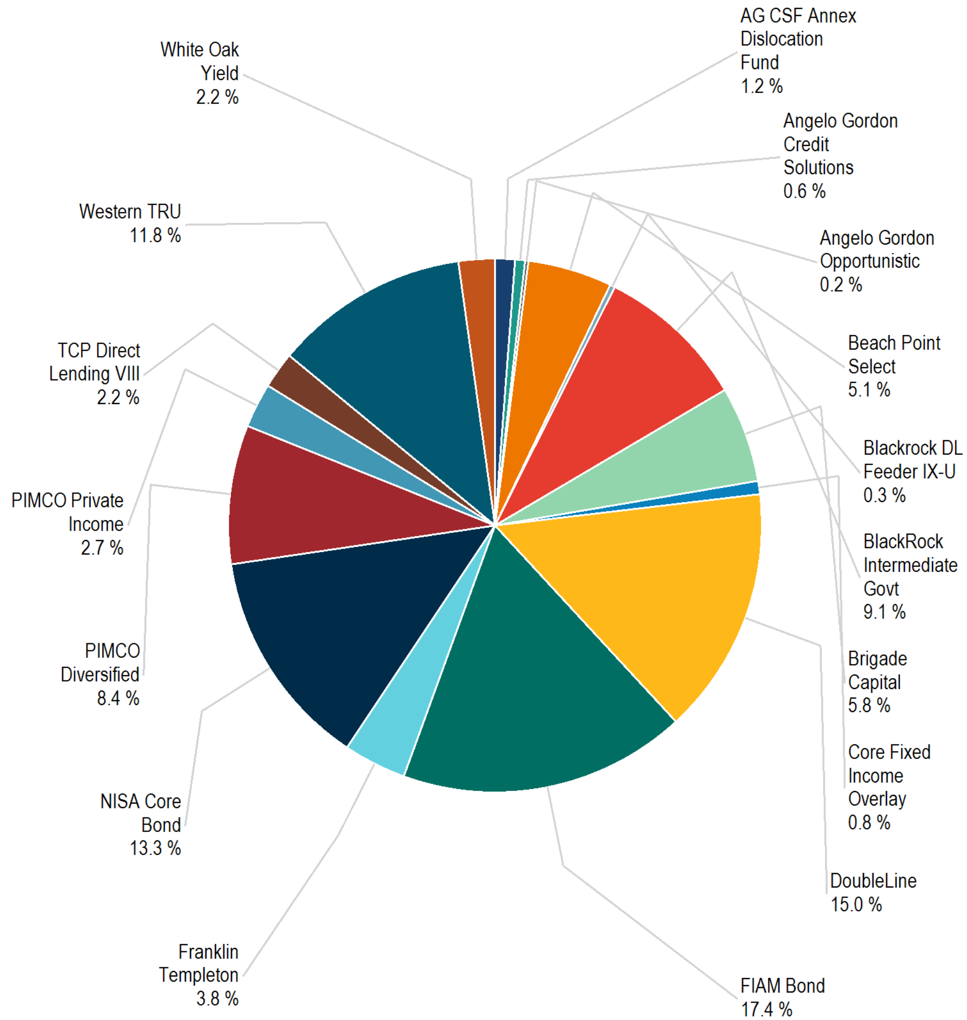
	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
Europe									
Austria	-1.4%	-1.4%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Belgium	3.3%	3.0%	0.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Czech Republic*	-3.8%	-3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Denmark	3.1%	15.4%	0.8%	1.5%	-0.2%	0.0%	0.0%	0.1%	-0.2%
Finland	23.4%	14.3%	0.8%	0.7%	0.1%	0.0%	0.0%	0.0%	0.1%
France	6.2%	3.1%	6.0%	6.7%	0.2%	0.0%	0.0%	0.0%	0.2%
Germany	15.4%	11.3%	4.6%	2.5%	0.1%	0.1%	0.1%	0.1%	0.3%
Greece*	3.3%	3.4%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Hungary*	-8.8%	-8.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Ireland	37.4%	11.8%	0.7%	0.4%	0.1%	0.0%	0.0%	0.1%	0.2%
Italy	-2.1%	2.9%	1.8%	1.6%	-0.1%	0.0%	0.0%	0.0%	-0.1%
Luxembourg	2.4%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Netherlands	1.1%	6.3%	2.8%	2.7%	-0.1%	0.0%	0.0%	0.0%	-0.1%
Norway	10.4%	10.3%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Poland*	-0.2%	-0.2%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Portugal	-6.6%	-2.8%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Russia*	-10.1%	-4.8%	0.7%	0.8%	-0.1%	0.0%	0.0%	0.0%	0.0%
Spain	-6.6%	-2.9%	1.6%	1.6%	-0.1%	0.0%	0.0%	0.0%	-0.1%
Sweden	15.0%	16.6%	3.5%	2.4%	0.0%	0.1%	0.0%	0.0%	0.1%
Switzerland	6.0%	5.7%	4.0%	6.6%	0.0%	0.0%	-0.1%	0.0%	0.0%
United Kingdom	3.9%	0.7%	12.3%	9.8%	0.3%	-0.2%	0.1%	0.1%	0.3%

Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
AsiaPacific									
Australia	2.9%	3.8%	3.0%	4.7%	0.0%	0.1%	-0.1%	0.0%	0.0%
China*	16.7%	12.3%	6.2%	10.8%	0.5%	-0.4%	0.0%	-0.2%	-0.1%
Hong Kong	8.3%	2.3%	6.0%	2.2%	0.1%	-0.1%	0.0%	0.2%	0.3%
India*	15.6%	16.1%	3.2%	2.4%	0.0%	0.1%	0.0%	0.0%	0.1%
Indonesia*	-4.2%	-5.5%	0.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Japan	7.4%	7.5%	20.3%	17.9%	0.0%	0.0%	0.1%	0.0%	0.1%
Korea*	14.4%	14.7%	2.5%	3.5%	0.0%	-0.1%	0.0%	0.0%	-0.1%
Malaysia*	6.4%	7.2%	0.2%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
New Zealand	13.9%	3.8%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.1%
Pakistan*	16.2%	15.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Philippines*	-2.5%	-2.5%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Singapore	-3.9%	0.6%	2.4%	0.8%	0.0%	-0.1%	0.0%	-0.1%	-0.2%
Taiwan*	27.3%	14.9%	3.3%	3.9%	0.5%	-0.1%	0.0%	-0.1%	0.3%
Thailand*	-12.0%	-12.2%	0.2%	0.7%	0.0%	0.1%	0.0%	0.0%	0.1%
Americas									
Argentina*	-25.2%	-2.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Brazil*	-0.8%	-2.3%	1.2%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Canada	6.5%	6.8%	4.5%	6.7%	0.0%	0.0%	-0.1%	0.0%	-0.1%
Chile*	-3.7%	-3.8%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Colombia*	1.8%	2.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Mexico*	2.1%	4.9%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Peru*	-5.8%	3.5%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
United States	7.6%	9.5%	2.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%

Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
Other									
Egypt*	4.2%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Israel	-0.4%	1.8%	0.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Qatar*	9.2%	9.1%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Romania**	-2.6%	10.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Saudi Arabia*	11.0%	10.9%	0.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
South Africa*	-0.4%	3.6%	1.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Turkey*	-14.8%	-14.8%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
United Arab Emirates*	2.8%	6.1%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Totals									
Americas	5.2%	4.9%	8.4%	9.1%	0.1%	0.0%	-0.1%	0.0%	0.0%
Europe	6.4%	4.9%	40.8%	39.4%	0.5%	0.0%	0.2%	0.0%	0.6%
Asia/Pacific	10.0%	8.9%	48.3%	48.5%	0.6%	0.0%	0.0%	0.0%	0.5%
Other	1.6%	4.8%	1.7%	3.0%	-0.1%	0.0%	0.0%	0.1%	-0.1%
Cash	0.0%	--	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	**7.9%**	**6.8%**	**100.0%**	**100.0%**	**1.0%**	**-0.1%**	**0.1%**	**0.1%**	**1.1%**
Totals									
Developed	6.6%	5.6%	78.8%	71.4%	0.8%	-0.1%	0.1%	0.1%	0.8%
Emerging*	13.4%	9.9%	20.3%	28.6%	0.9%	-0.4%	0.0%	-0.3%	0.3%
Frontier**	-2.6%	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash	0.0%	--	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



	Actual $	Actual %	Manager Contribution to Excess Return %
AG CSF Annex Dislocation Fund	$17,978,102	1.2%	0.0%
Angelo Gordon Credit Solutions	$2,879,174	0.2%	0.0%
Angelo Gordon Opportunistic	$211,353	0.0%	0.0%
Angelo Gordon STAR	$9,700,337	0.6%	0.0%
Beach Point Select	$77,889,968	5.1%	0.1%
Blackrock DL Feeder IX-U	$4,753,490	0.3%	0.0%
BlackRock Intermediate Govt	$140,550,445	9.1%	0.0%
Brigade Capital	$89,504,254	5.8%	0.1%
DoubleLine	$231,147,601	15.0%	0.2%
FIAM Bond	$267,857,425	17.4%	0.1%
Franklin Templeton	$58,277,798	3.8%	-0.1%
NISA Core Bond	$204,317,463	13.3%	0.0%
PIMCO Diversified	$128,548,915	8.4%	0.0%
PIMCO Private Income	$41,573,262	2.7%	0.0%
TCP Direct Lending VIII	$34,316,197	2.2%	0.0%
Western TRU	$181,681,972	11.8%	0.3%
White Oak Yield	$34,184,024	2.2%	-0.1%
Core Fixed Income Overlay	$12,652,281	0.8%	0.0%
Actual vs. Policy Weight Difference			-0.3%
Total	**$1,538,024,061**	**100.0%**	**0.4%**

Statistics Summary

3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Fixed Income	4.4%	3.4%	0.8	-0.3	1.8%
Blended Fixed Income Index	5.0%	4.0%	0.9	--	0.0%
Core Fixed	4.8%	2.8%	1.2	-0.3	1.5%
BBgBarc US Aggregate TR	5.2%	3.4%	1.1	--	0.0%
BlackRock Intermediate Govt	4.2%	2.5%	1.0	3.1	0.1%
BBgBarc US Govt Int TR	4.0%	2.5%	1.0	--	0.0%
FIAM Bond	6.0%	3.8%	1.2	0.5	1.6%
BBgBarc US Aggregate TR	5.2%	3.4%	1.1	--	0.0%
Western TRU	3.1%	6.6%	0.2	0.2	6.6%
3-Month Libor Total Return USD	1.9%	0.2%	1.3	--	0.0%
Opportunistic Credit	3.8%	6.6%	0.3	-0.3	4.3%
BBgBarc BA Intermediate HY	5.0%	7.9%	0.4	--	0.0%
Angelo Gordon Opportunistic	8.9%	17.9%	0.4	0.2	17.9%
BBgBarc US Aggregate TR	5.2%	3.4%	1.1	--	0.0%
Angelo Gordon STAR	14.5%	12.4%	1.0	0.7	12.4%
BBgBarc US Aggregate TR	5.2%	3.4%	1.1	--	0.0%
Beach Point Select	5.5%	8.5%	0.5	0.1	4.6%
BBgBarc BA Intermediate HY	5.0%	7.9%	0.4	--	0.0%
Brigade Capital	1.3%	11.7%	0.0	-0.6	6.7%
BBgBarc BA Intermediate HY	5.0%	7.9%	0.4	--	0.0%
PIMCO Diversified	4.7%	6.6%	0.5	0.1	1.3%
Blended PIMCO Diversified Index	4.5%	7.6%	0.4	--	0.0%

Statistics Summary

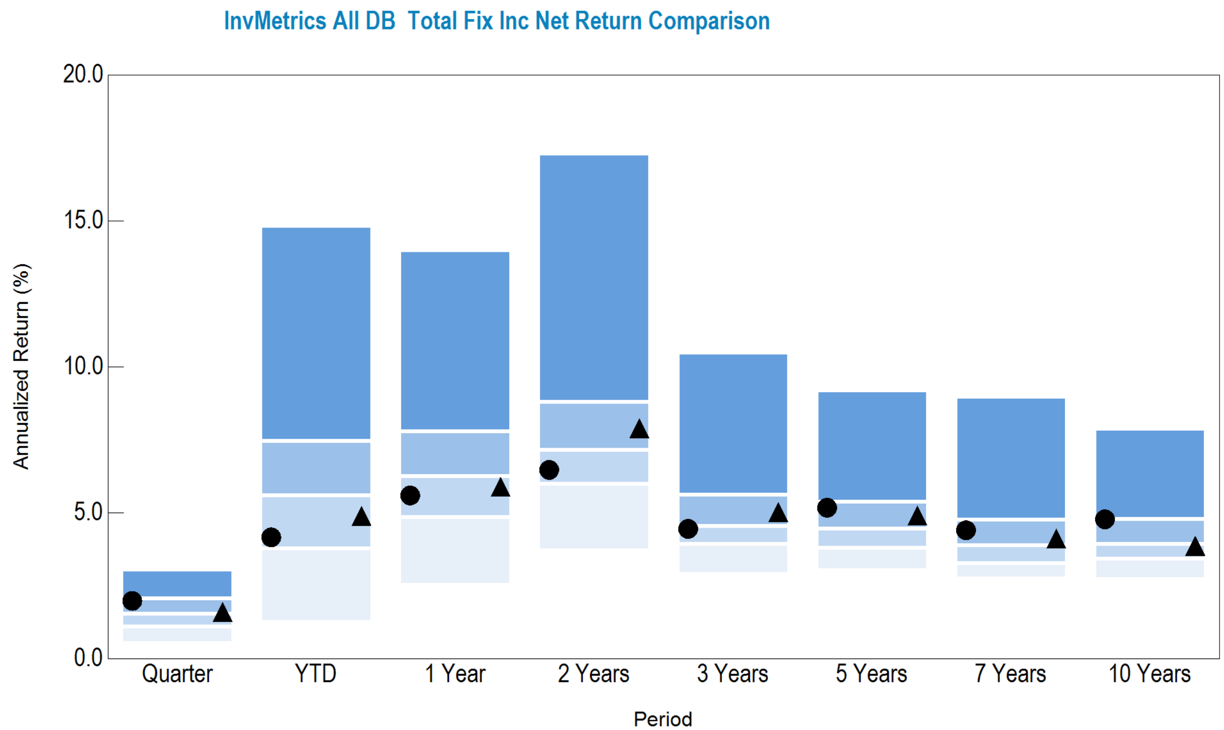
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Franklin Templeton	-2.2%	6.9%	-0.5	-0.8	7.6%
BBgBarc Multiverse TR	4.0%	4.2%	0.6	--	0.0%
Private Credit	6.9%	3.9%	1.3	0.0	2.3%
Cliffwater Direct Lending Index	6.8%	5.0%	1.0	--	0.0%
TCP Direct Lending VIII	6.0%	3.1%	1.4	-0.2	4.4%
Cliffwater Direct Lending Index	6.8%	5.0%	1.0	--	0.0%
White Oak Yield	6.5%	3.5%	1.4	-0.1	3.2%
Cliffwater Direct Lending Index	6.8%	5.0%	1.0	--	0.0%

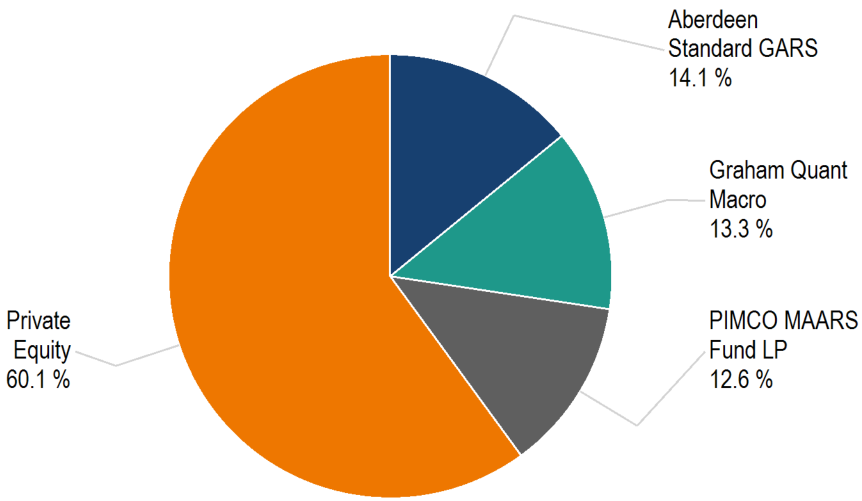
Statistics Summary

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Fixed Income	5.2%	3.2%	1.3	0.1	2.1%
Blended Fixed Income Index	4.9%	3.6%	1.0	--	0.0%
Core Fixed	4.6%	2.8%	1.3	0.3	1.7%
BBgBarc US Aggregate TR	4.2%	3.2%	1.0	--	0.0%
FIAM Bond	5.1%	3.5%	1.1	0.7	1.4%
BBgBarc US Aggregate TR	4.2%	3.2%	1.0	--	0.0%
Western TRU	4.5%	5.7%	0.6	0.5	5.7%
3-Month Libor Total Return USD	1.5%	0.2%	1.5	--	0.0%
Opportunistic Credit	6.0%	5.8%	0.9	-0.1	3.8%
BBgBarc BA Intermediate HY	6.5%	6.7%	0.8	--	0.0%
Angelo Gordon Opportunistic	8.3%	14.2%	0.5	0.3	14.3%
BBgBarc US Aggregate TR	4.2%	3.2%	1.0	--	0.0%
Angelo Gordon STAR	12.7%	10.4%	1.1	0.8	10.7%
BBgBarc US Aggregate TR	4.2%	3.2%	1.0	--	0.0%
Beach Point Select	7.4%	7.1%	0.9	0.2	3.9%
BBgBarc BA Intermediate HY	6.5%	6.7%	0.8	--	0.0%
Brigade Capital	5.0%	10.3%	0.4	-0.2	6.1%
BBgBarc BA Intermediate HY	6.5%	6.7%	0.8	--	0.0%
Franklin Templeton	1.7%	6.9%	0.1	-0.3	8.4%
BBgBarc Multiverse TR	4.1%	4.8%	0.6	--	0.0%



	Return (Rank)															
5th Percentile	3.0		14.8		14.0		17.3		10.5		9.2		9.0		7.9	
25th Percentile	2.1		7.5		7.8		8.8		5.6		5.4		4.8		4.8	
Median	1.6		5.6		6.3		7.2		4.6		4.5		3.9		3.9	
75th Percentile	1.1		3.8		4.9		6.0		3.9		3.8		3.3		3.4	
95th Percentile	0.5		1.3		2.5		3.7		2.9		3.0		2.8		2.7	
# of Portfolios	311		311		311		310		305		287		266		207	
● Fixed Income	2.0	(30)	4.2	(70)	5.6	(62)	6.5	(67)	4.4	(56)	5.2	(31)	4.4	(34)	4.8	(26)
▲ Blended Fixed Income Index	1.6	(49)	4.9	(60)	5.9	(56)	7.9	(39)	5.0	(41)	4.9	(38)	4.1	(42)	3.9	(56)



	Actual $	Actual %	Manager Contribution to Excess Return %
Aberdeen Standard GARS	$78,492,828	14.1%	0.4%
Graham Quant Macro	$74,391,329	13.3%	0.2%
PIMCO MAARS Fund LP	$70,232,023	12.6%	-0.1%
Private Equity	$335,485,468	60.1%	2.2%
Actual vs. Policy Weight Difference			1.0%
Total	**$558,601,647**	**100.0%**	**3.7%**

Statistics Summary

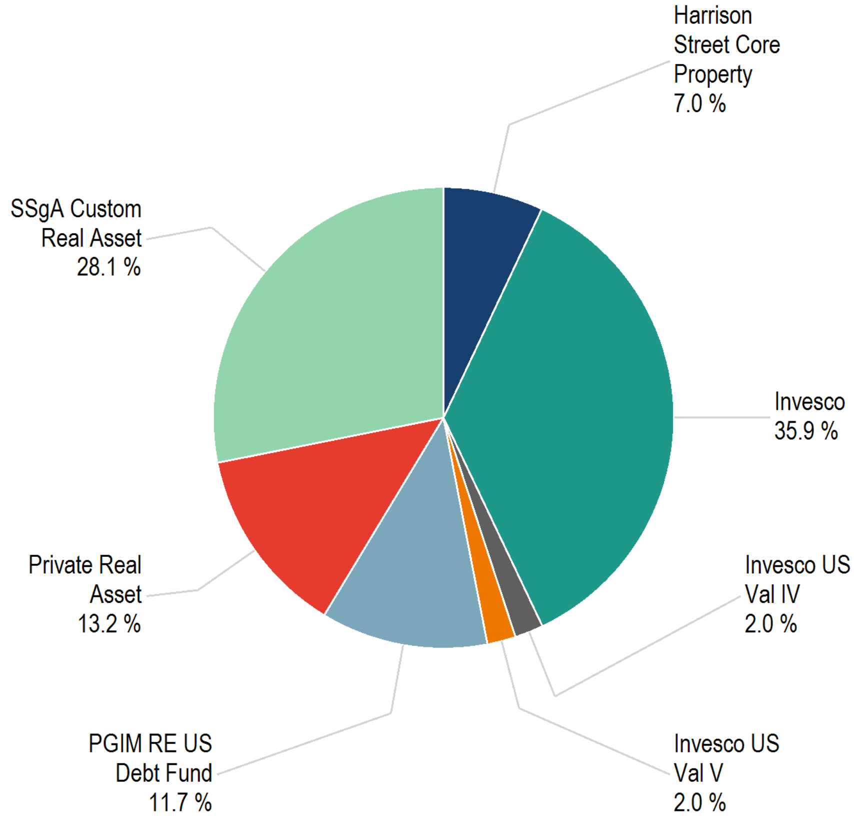
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Alternatives	7.5%	11.2%	0.5	-0.1	10.9%
Blended Alternatives Index	8.8%	8.8%	0.8	--	0.0%
Private Equity	22.4%	18.3%	1.1	0.6	18.3%
Blended Private Equity Index	11.1%	17.5%	0.5	--	0.0%
Hedge Fund/Absolute Return	-7.7%	6.8%	-1.4	-2.0	6.8%
Libor 1 month +4%	5.7%	0.2%	18.4	--	0.0%
Aberdeen Standard GARS	2.9%	4.8%	0.3	-0.6	4.9%
Libor 1 month +4%	5.7%	0.2%	18.4	--	0.0%

Statistics Summary

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Alternatives	7.8%	9.3%	0.7	-0.2	9.3%
Blended Alternatives Index	9.8%	7.5%	1.2	--	0.0%
Private Equity	18.8%	15.3%	1.2	0.3	16.3%
Blended Private Equity Index	14.5%	14.8%	0.9	--	0.0%
Hedge Fund/Absolute Return	-3.5%	5.7%	-0.8	-1.5	5.8%
Libor 1 month +4%	5.3%	0.2%	17.4	--	0.0%



	Actual $	Actual %	Manager Contribution to Excess Return %
Harrison Street Core Property	$50,554,625	7.0%	0.0%
Invesco	$260,402,629	35.9%	-0.3%
Invesco US Val IV	$14,716,665	2.0%	0.0%
Invesco US Val V	$14,838,498	2.0%	0.0%
PGIM RE US Debt Fund	$84,822,294	11.7%	0.1%
Private Real Asset	$95,333,057	13.2%	-1.4%
SSgA Custom Real Asset	$203,918,226	28.1%	0.0%
Actual vs. Policy Weight Difference			-0.7%
Total	**$724,585,994**	**100.0%**	**-2.2%**

Statistics Summary

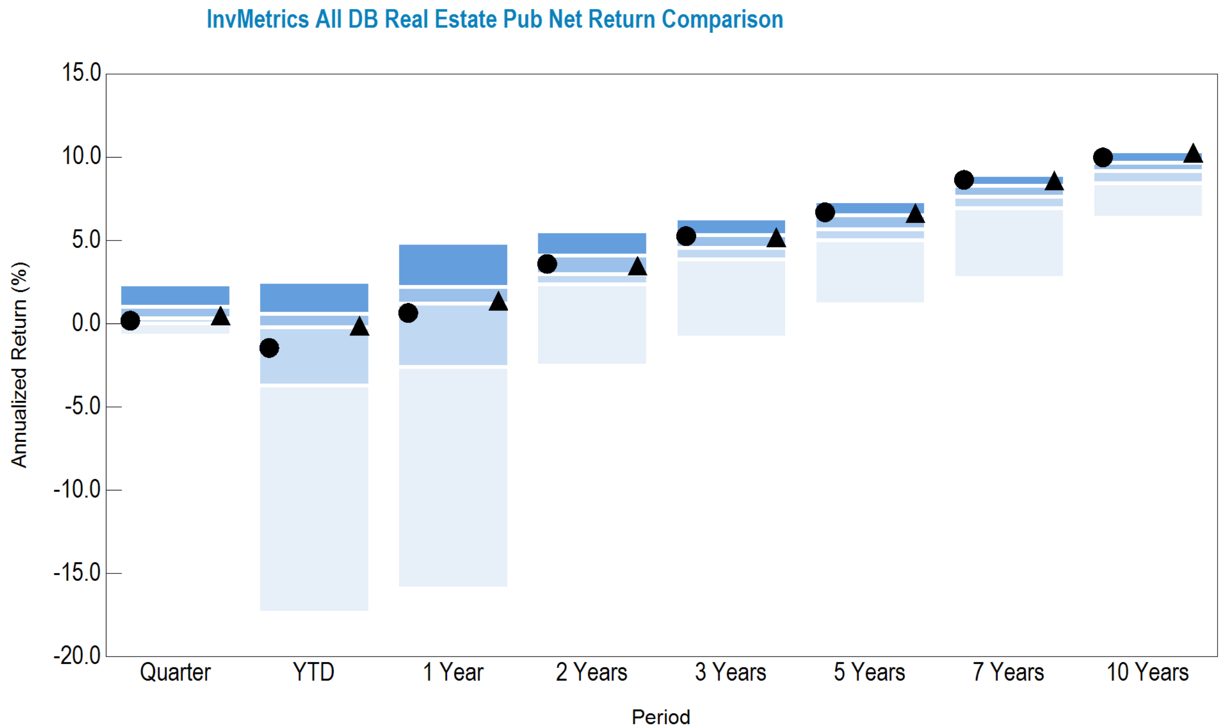
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	-0.8%	6.8%	-0.4	-1.1	2.4%
Blended Inflation Hedge Index	1.9%	5.9%	0.1	--	0.0%
Real Estate	5.3%	3.6%	1.0	0.1	1.1%
NCREIF ODCE	5.2%	2.9%	1.2	--	0.0%
Invesco	4.6%	4.2%	0.7	-0.3	1.9%
NCREIF ODCE	5.2%	2.9%	1.2	--	0.0%
Invesco US Val IV	7.8%	5.7%	1.1	0.7	3.5%
NCREIF ODCE	5.2%	2.9%	1.2	--	0.0%
PGIM RE US Debt Fund	5.9%	2.5%	1.7	0.4	1.8%
NCREIF ODCE	5.2%	2.9%	1.2	--	0.0%
Private Real Asset	-3.7%	9.7%	-0.5	0.0	18.0%
Blended Private Real Asset Index	-2.9%	18.8%	-0.2	--	0.0%
Public Real Assets	-7.1%	19.1%	-0.5	-1.0	4.4%
Blended Public Real Asset Index	-2.5%	15.9%	-0.3	--	0.0%
SSgA Custom Real Asset	-2.4%	15.6%	-0.3	0.0	0.8%
SSgA Custom Real Asset Index	-2.5%	15.9%	-0.3	--	0.0%

Statistics Summary

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error Rank
Real Estate	6.7%	3.7%	1.5	0.0	31
NCREIF ODCE	6.6%	3.3%	1.7	--	1
Invesco	6.2%	4.0%	1.2	-0.3	--
NCREIF ODCE	6.6%	3.3%	1.7	--	--
Private Real Asset	4.0%	22.1%	0.1	0.1	--
Blended Private Real Asset Index	1.3%	14.7%	0.0	--	--



	Return (Rank)															
5th Percentile	2.3		2.5		4.8		5.5		6.3		7.3		8.9		10.3	
25th Percentile	1.0		0.6		2.2		4.1		5.3		6.5		8.3		9.7	
Median	0.4		-0.2		1.2		3.0		4.6		5.7		7.6		9.2	
75th Percentile	0.0		-3.7		-2.6		2.4		3.9		5.0		6.9		8.5	
95th Percentile	-0.7		-17.3		-15.9		-2.5		-0.8		1.2		2.8		6.4	
# of Portfolios	93		93		93		89		89		84		79		64	
● Real Estate	0.2	(63)	-1.5	(73)	0.6	(59)	3.6	(39)	5.3	(29)	6.7	(20)	8.6	(12)	10.0	(11)
▲ NCREIF ODCE	0.5	(44)	-0.1	(48)	1.4	(45)	3.5	(40)	5.2	(33)	6.6	(22)	8.6	(13)	10.3	(7)

Acadian Asset Management – Acadian U.S. Managed Volatility

Acadian attempts to take advantage of the mispricing of risk by building low-risk equity portfolios that hold predominantly low-risk stocks, and then also adding information on the correlation structure of equities to help further reduce risk through diversification.

Angelo, Gordon & Co. – AG STAR Fund

The STAR Fund will focus on CMBS and non-Agency RMBS priced between 25-75% of par, which AG believes are even today mispriced due to their complex nature and a dearth of natural buyers capable of accurately valuing these assets. In addition, AG will target securities that are well-positioned to benefit from home and commercial property price stabilization and recovery, and/or borrower credit quality improvement. In this regard the STAR Fund will be more aggressive than the PPIP Fund since it will target securities that are more geared to a recovery of the commercial and residential real estate markets. The Fund will utilize a moderate amount of leverage (1x to 1.5x) and is targeting a base-case 15% net IRR with a downside return in the mid/high single digits and an upside projection of 25%+ returns.

Angelo, Gordon & Co. – AG Opportunistic Whole Loan Fund

As bank balance sheets have strengthened since the crisis, Angelo Gordon expects approximately $40 billion of re-performing loans and non-performing loans will trade hands each year in the near term. By acquiring these loans at a discounted price and replacing original servicers with better-focused special servicers, Angelo Gordon believes it can improve operational efficiency and generate attractive returns. To take advantage of this opportunity, Angelo Gordon established this Opportunistic Whole Loan Fund to make investments primarily in a portfolio of non-performing loans and re-performing, but will also include investments in new residential mortgage loans and excess mortgage servicing rights. Opportunistic investments in commercial mortgage loans and other mortgage related investments may also be included in the Fund's portfolio. Angelo Gordon has been an active participant in the residential and consumer debt market since 2008. The Partnership's investment approach to residential mortgage loans and securities is guided by an analytically based investment process anchored by distressed asset valuation and cash flow modeling. Angelo Gordon's analysis of re-performing and non-performing loans begins with its loan due diligence process. This process will include a review of substantially all of the properties in the pool, as well as a review of the loan files backing the loan pool. In addition, a macro overlay is embedded in the investment process which incorporates general economic trends, along with specific views on interest rates, unemployment, collateral appreciation or depreciation, governmental intervention in creditors' rights and liquidation timelines.

Angelo, Gordon & Co. – Credit Solutions

This fund is Angelo, Gordon's re-entry into the special situations private fund market. The fund expects to hold concentrated positions in the US and within Europe in both public and private markets.

Angelo, Gordon & Co. – CSF (Annex) Dislocation

Angelo Gordon completed syndication of its AG Credit Solutions Fund ("CSF") in December of 2019. CSF was designed to capture opportunities in a late-cycle credit market and the initial stages of a market dislocation. Angelo Gordon designed and documented CSF to allow the placement of an annex fund in times of dislocation and credit deterioration. Given the price movements in the credit markets in March of 2020, driven by the lack of liquidity, financing needs of investment grade and non-investment grade borrowers, and anticipated impacts (restructurings, rescue financings, liquidations, etc.), Angelo Gordon came to market with the $1.8 billion AG CSF Annex Dislocation Fund ("ADF"). ADF's investment aim is to target senior securities of world-class businesses with irreplaceable assets and strong cash flow profiles which, because of market stress, can be purchased at a material discount to what we believe is a company's long-term intrinsic value. ADF will address corporate credit-based opportunities created in three main areas: 1) trading-based price dislocations that reduce creation multiples (price through the debt that must be repaid before value accrues to other stakeholders) while generating high current income; 2) opportunities in issuers tied to industries directly impacted by COVID-19 where the market's perception of the impact differs from the actual impact; and 3) corporate debt issuers that will be materially impacted by the crisis and will need to restructure, but whose creation value is materially lower than the issuer's intrinsic value.

Baillie Gifford – ACWI ex US Focus Equities

ACWI ex US Focus is a fundamental growth strategy. Research is organized primarily by regional teams, with each member of the ACWI ex US Focus Portfolio Construction Group representing a regional team. Four global sector groups also contribute research. Baillie Gifford conducts approximately 2000 company meetings annually both in Edinburgh and onsite. Companies are evaluated on their growth opportunity relative to the average company, their ability to execute on that opportunity, and the degree to which probability of future success is already valued by the market. Baillie Gifford's basic philosophy is that share prices ultimately follow earnings. They believe that the stock market has a recurring tendency to under-appreciate the value of long-term compound growth. The process seeks to add value through use of proprietary fundamental research to identify companies exhibiting some combination of sustained above average growth, and attractive financial characteristics. The portfolio generally holds 80-120 stocks, with country and sector weights +/-6% relative to the index and industry weights +/- 5% relative to the index.

Beach Point Capital Management, L.P. - Beach Point Select Fund

Beach Point Select Fund is a commingled fund vehicle within the firm's Opportunistic Credit strategy. This fund focuses on off-the-run, complex, and less-liquid securities. It is a best ideas portfolio of distressed debt, special situations, private/direct loans, catalyst-driven high yield bonds and bank loans, and credit-informed equities with a North American and European focus. The Select Fund differs from other funds and accounts in the Opportunistic Credit strategy by pursuing a more concentrated portfolio and emphasizing a higher percentage of less-liquid/private investments. Beach Point invests up and down the entire capital structure and it constructs portfolios with a bottom-up, research-driven approach that also takes into account top-down macro considerations. Its investment process includes idea generation, detailed credit analysis, relative value decision making and investment selection, portfolio construction and on-going monitoring. The ultimate goal of its investment process is to produce a well-diversified investment portfolio with limited downside risk and substantial upside potential.

BlackRock – Intermediate Government Index

The Intermediate Government Index Fund seeks to track the results of an index composed of U.S. dollar-denominated government, government related, and investment grade U.S. corporate bonds with maturities between 1 and 10 years.

BlackRock – MSCI ACWI ex US IMI Index

The ACWI ex US IMI Index Fund seeks to replicate the return of the MSCI ACWI ex US IMI Index. This index represents the developed equity markets outside of North America, including small cap equity.

BlackRock – Russell 1000 Index

The Russell 1000 Index Fund tracks large U.S. companies and achieve broad diversification with low costs by fully replicating the Russell 1000 Index.

BlackRock – Direct Lending Fund

Upon completion of the TCP acquisition, the former TCP team is raising a direct lending portfolio. The fund will invest in privately originated, performing senior secured debt primarily in North American based companies with an average EV of $750 million.

Brigade – Opportunistic Credit

Opportunistic Credit is a fundamental, bottom-up strategy focused on high yield corporate bonds and bank loans with tactical allocations to structured securities, convertibles and other sectors of the bond markets as they become attractive on a relative value basis. While performing credits represent the majority, Brigade will invest up to 35% of the portfolio in distressed securities and restructuring situations if these types of opportunities are attractive on a risk-adjusted basis and the timing is right with respect to the credit cycle. The portfolio is comprised of mostly North American issuers, but they are not restricted geographically and expect to have a moderate allocation to Europe over time. Although the portfolio is generally long-only, Brigade has the ability to implement a limited amount of tactical macro hedges.

DE Shaw – DE Shaw US Broad Market Core Alpha Extension Fund

The D. E. Shaw group believes that there exist some market inefficiencies that may be identified through quantitative analysis, advanced technology, and the insight of practitioners. Identifying these inefficiencies involves a process of hypothesis formulation, testing, and validation. Importantly, to avoid data-mining, the hypothesis formulation precedes the analysis of the historical data. D.E. Shaw's Structured Equity strategies rely largely on quantitative and computational investment techniques developed by the D. E. Shaw over the last 19 years in the course of research conducted for purposes of managing the firm's hedge funds. In addition to its beta one strategies, D.E. Shaw manages substantial assets in its hedge fund strategies. D.E. Shaw's investment process involves a suite of quantitative models, each designed to capitalize on a distinct and uncorrelated set of market inefficiencies. Some of these models are technical in nature and involve price and volume inputs. Other models rely on fundamental data, such as figures gleaned from corporate balance sheets or income statements. Still others, again quantitative, anticipate or react to a particular corporate event or set of events. These models typically operate with forecast horizons of a few weeks to many months. The ability to trade on shorter-term signals distinguishes D.E. Shaw from many of its long only and 130/30 peers. Portfolio construction involves the use of a proprietary optimizer which runs dynamically throughout the trading day. The portfolio is broadly diversified with several hundred long and short positions. Over- and under-weighting of sectors and industries relative to the benchmark will be quite modest, with the intention that most of the alpha be generated by security selection. The US Broad Market Core Alpha Extension Fund is a 130/30 strategy which maintains a beta that is approximately neutral to the Russell 1000 Index.

DoubleLine – Securitized Income

The DoubleLine Securitized Income strategy is an actively managed, liquid, long only, intermediate-term fixed income product. The primary objective of the strategy is to seek and maximize current income and total return by utilizing a combination of Agency MBS and structured credit. The DoubleLine Structured Products team aims to offer clients investment grade exposure to both interest rate duration and credit spread to provide a more attractive total return profile compared to the benchmark in its Securitized Income portfolios.

Franklin Templeton Investments – Global Fixed Income

Franklin Templeton manages the global bond mandate in an unconstrained fashion using a top-down, fundamental framework. In the short term and on a country-by-country basis there are often inefficiencies in global bond and currency markets, however, over the longer term the market will generally price to fundamentals. Thus, FT focuses on fundamental research to identify long-term opportunities and uses short-term market inefficiencies to build positions in such investments. The investment and portfolio construction process begin with the determination of the Fund's or institutional client's investment objectives, resulting in a set of risk-return parameters and exposure limits within which the portfolio is managed. Next the firm's global economic outlook for the industrialized countries is developed, with a focus on interest rate and exchange rate forecasts. The portfolio's interest rate outlook is a function of global general equilibrium macroeconomic analysis as well as country-specific research. Macroeconomic conditions in the G-3 economies are analyzed first, primarily with respect to how current and projected growth and inflation dynamics are expected to influence monetary policy. This analysis is then extended out to the rest of the industrialized countries (G-13) as well as emerging markets, which results in broad targets for cash, duration, currencies and the developed/emerging market mix. Using the firm's interest rate and exchange rate outlook, probability-weighted horizon returns for bonds of various countries are then calculated. This analysis is used to establish specific country weights and duration targets based on risk-adjusted expected total return measured in the portfolio's base currency. Analysis of emerging markets includes sovereign credit analysis along with greater emphasis on capital flows, inter-market dynamics and trends in the level of risk aversion in the market.

Graham – Quant Macro Fund

Graham Quant Macro ("GQM") is a directional, long and short strategy that utilizes fundamental and price-based indicators to establish return forecasts across global interest rates, foreign exchange, stock indices and commodities. The strategy incorporates a variety of submodels that generate macro fundamental forecasts, assess yield and earnings differentials, compare current valuations relative to historic fair value, and analyze directional price trends across markets. Quantitative risk management and portfolio construction techniques are used to diversify risk across the portfolio and enhance risk-adjusted returns. Historically, the average holding period has been approximately eight to ten weeks, although the sub-models will make daily adjustments to positions. The strategy is designed to have low correlation to traditional markets and other alternative strategies and has the potential to provide significant portfolio diversification benefits.

Harrison Street Core Property

Based in Chicago, Harrison Street's exclusive focus since inception in 2005 has been investing in non-core property sectors of the real estate market. The Harrison Street Core Fund is an open-end fund that invests primarily in stabilized education, healthcare, and self-storage real estate assets in the United States using modest leverage with an emphasis on generating current income. The focus on these alternative property types is intended to concentrate on areas of the real estate market that are less GDP sensitive with demand drivers that are more demographic driven such as aging populations, education growth and healthcare delivery. Each of these areas tend to be less tied to the business cycle, have fragmented ownership and more operationally intensive. The fund acts as a diversifier within real estate portfolios with sector exposures that are not a typical focus of other core ODCE funds.

INVESCO Realty Advisors – INVESCO Core Equity, LLC

SamCERA is a founding member of INVESCO's open-end Core Equity real estate fund and rolled its separate account properties into the fund. INVESCO Core Equity, LLC (the "Fund") is a perpetual life, open-end vehicle which invests in a diversified portfolio of institutional quality office, retail, industrial and multifamily residential real estate assets. The Fund buys core properties that are located within the United States, typically requiring an investment of $10 million or more. The portfolio cannot be more than 30% leveraged.

INVESCO Realty Advisors – INVESCO US Val IV

Invesco has provided SamCERA with Core Real Estate exposure since 2004 through the Invesco Core Equity Fund. The Invesco real estate team manages around $62B in assets with investments and offices around the globe. Invesco Value Fund IV will look to acquire fundamentally sound but broken "core" assets that can be repositioned into institutional-quality, income producing properties. Investments will be limited to direct equity interests in office, multi-family, retail and industrial properties across the US. The Fund is expected to be geographically concentrated in U.S. gateway cities and top 25 Metropolitan Statistical Areas (MSA's). Invesco Value Fund IV will provide a nice compliment to the more conservative Invesco Core Fund and offer the potential of enhanced returns to the SamCERA Real Estate portfolio.

INVESCO Realty Advisors – INVESCO US Val V

Invesco has provided SamCERA with Core Real Estate exposure since 2004 through the Invesco Core Equity Fund and through the Invesco US Value IV Fund since December 2015. The Invesco real estate team manages around $62B in assets with investments and offices around the globe. Invesco Value Fund V will be similar to the Value Add IV and look to acquire fundamentally sound but broken "core" assets that can be repositioned into institutional-quality, income producing properties. Investments will be limited to direct equity interests in office, multi-family, retail and industrial properties across the US. The Fund is expected to be geographically concentrated in U.S. gateway cities and top 25 Metropolitan Statistical Areas (MSA's).

Mondrian Investment Partners – International Equity

Mondrian is a value-oriented, defensive manager whose investment philosophy is based on the principle that investments must be evaluated for their fundamental long-term value. The firm's philosophy involves three stated investment objectives: 1) provide a rate of return meaningfully greater than the client's domestic rate of inflation, 2) structure client portfolios that preserve capital during protracted international market declines, and 3) provide portfolio performance that is less volatile than benchmark indices and other international managers. Mondrian applies typical value screening criteria to a universe of 1,500 stocks, from which 500 are selected for more detailed work. Through fundamental research, and the deliberations of the Investment Committee, the universe is further reduced to a list of 150 stocks. The investment team conducts detailed fundamental analysis on the remaining stocks, a process which includes applying the firm's dividend discount model consistently across all markets and industries. Mondrian also uses a purchasing power parity model to give an accurate currency comparison of the value of the stocks under consideration. The firm will only consider buying stocks in countries with good investor protection practices and relatively simple repatriation procedures. A computer-based optimization program is employed in the portfolio construction process. Mondrian's portfolio holds 80-125 issues.

NISA – Core Bond

NISA's investment strategy consists of strategic top-down and tactical bottom-up decisions. The Investment committee meets monthly and sets the strategic parameters including sector selection and yield curve positioning.

PanAgora Asset Management – Defensive U.S. Equity Low Volatility

PanAgora's Defensive Equity strategy seeks to balance risk exposures within the portfolio across multiple dimensions to achieve true diversification. The Defensive Equity approach is used to construct equity portfolios designed to achieve tailored exposure to certain factors, including low volatility, multi-factor (value, quality, and momentum), and high dividend yield while maintaining less risk concentration throughout the portfolio.

Parametric Currency Overlay – Currency Hedge

An overlay hedge placed on half of the notional value of international equities. The portfolio uses Parametric for this overlay.

PIMCO Diversified

PIMCO Diversified Income Fund offers a broad and flexible multi-credit approach in a liquid and cost-effective format. The Diversified Income Fund seeks to produce consistent above benchmark performance using diversified sources of alpha from a universe that includes global credit as well as "non-core" credit sectors (ex., securitized, emerging markets).

PIMCO – MAARS

PIMCO MAARS is an alternative risk premia strategy that looks for risks associated with: (1) Supply and Demand Constraints, (2) Behavioral Biases, and (3) Asymmetric Risks (event risk).

PIMCO Private Income Fund

PIMCO Private Income Fund provides an attractive total return oriented global credit exposure utilizing both top-down sector relative value and bottom up security selection. The strategy invests across private residential, commercial, corporate and specialty finance markets.

PGIM RE Debt

PGIM Real Estate US Debt Fund focuses on a loan origination strategy with a mix of 20% senior long duration loans on stable assets, 60% senior short/medium duration loans on stable and transitional assets, and 20% mezzanine mid/long duration debt.

Pyramis Global Advisors – Broad Market Duration Commingled Pool

Pyramis' Broad Market Duration (BMD) investment strategy seeks to achieve absolute and risk-adjusted returns in excess of the BC U.S. Aggregate Index, focusing its investments in US Treasuries, agencies, investment grade corporate bonds, mortgage-backed and asset-backed securities. The BMD commingled pool can also hold small, opportunistic positions in out-of-benchmark securities, such as inflation-linked bonds. The investable universe includes all US dollar denominated, investment grade debt securities. The BMD investment approach emphasizes issuer and sector valuation and individual security selection. Through the integration of fundamental and quantitative research and trading, the BMD strategy is implemented in a team environment. Risk management technology is utilized to explicitly quantify benchmark exposures on a daily basis, and Pyramis uses the same analytical framework to assess both index and portfolio risk. Tracking error should range between 40 and 60 basis points per annum over the benchmark, and stringent portfolio construction risk control rules are strictly adhered to.

Quantitative Management Associates – QMA Small-Cap Core

Quantitative Management Associates (QMA) utilizes a bottom-up quantitative framework in order provide a diversified exposure to core U.S. small-cap stocks, while attempting to produce consistent outperformance versus the benchmark with moderate tracking error levels. QMA uses an adaptive, systematic investment process to exploit opportunities created by mispriced securities to consistently add value over long time periods. Bottom-up stock selection drives exposure to key sources of alpha (valuation, growth, and quality). The QMA stock selection model adapts to changes in company growth rates and market environments by putting more emphasis on valuation for slowly growing companies, and more emphasis on future growth projections for companies with higher projected growth rates.

Standard Life Aberdeen Global Absolute Return Strategy (GARS)

The Standard Life Aberdeen Global Absolute Return Strategy (GARS) was initially launched in 2005 to help address Standard Life's own pension plan's deficit problem. GARS' primary investment objective is to deliver a positive absolute return over the medium to long term with lower volatility than equities, irrespective of market conditions. It seeks returns through dynamic allocation to investment opportunities in traditional and advanced asset classes, and also separately exploits the team's security selection expertise. In the search for attractive investment positions, the team follows a rigorous research process. This includes a variety of research techniques, including broad global macro-economic, fundamental analysis, quantitative research and valuation modeling. The GARS investment process is designed to capitalize on an array of research and investment techniques and draws together the team's three-year investment insights. The team then rigorously examines and review position proposals to approve a high conviction, short list of positions that work well together. Having a cash benchmark means that GARS has a potentially unrestricted investment universe and all portfolio holdings are at the Portfolio Manager's discretion. The GARS portfolio also routinely uses a variety of conventional derivatives for investment, liquidity, efficiency and hedging purposes. The GARS strategy has experienced significant growth in its asset under management since it becomes available to external investors in 2006.

State Street Global Advisors (SSgA) Custom Real Asset

SSgA Custom Real Asset portfolio uses a portfolio of liquid real assets to proxy private real assets. The portfolio is comprised of equal weightings of the Bloomberg Commodity Index, S&P Global Natural Resources Index, and S&P Global Infrastructure Index. The portfolio is used to fund upcoming private real asset mandates.

Tennenbaum Capital Partners - TCP Direct Lending Fund VIII

TCP Direct Lending Fund VIII is a private investment fund managed by Tennenbaum Capital Partners ("TCP"). The Fund is designed to continue TCP's successful strategy of investing in privately-originated, performing senior secured debt primarily in North America-based companies with target enterprise values between $100 million and $1.5 billion. The Fund will include positions in 1st lien, 2nd lien and unitranche debt, with a preference for floating-rate debt, which TCP believes provides better flexibility to adapt to market conditions. TCP's direct lending strategy has generated attractive investment opportunities across market cycles, as evidenced by the Firm's prior direct lending track record. Fund VIII targets an unlevered annual yield of approximately 9-12%, with its return primarily driven by current income.

Western Asset Management – Total Return Unconstrained (TRU)

Western Asset's Total Return Unconstrained strategy (TRU) seeks to provide bond-like risk and return over the long term but does not have a benchmark. This allows for asset allocation based on value rather than using the construction of a benchmark as baseline positioning. The investment approach is active with very broad latitude on duration (-3 to +8 years) and on asset allocation across all of the eligible sectors in a core plus mandate. The portfolio must have at least 50% of its holdings in investment-grade securities. The flexibility offered by this strategy allows for defensive positioning in rising rate environments and opportunistic deployment of capital when value opportunities arise. It also allows the portfolio managers to emphasize (or deemphasize) either credit or rates when one or the other appears to offer greater (or lesser) value.um non-US exposure.

White Oak - White Oak Yield Spectrum Fund

The White Oak Yield Spectrum Fund's objective is to earn substantial current income by originating, extending, and/or investing in a diversified portfolio of primarily senior secured corporate credit and debt instruments consisting of term loans, asset-based loans and equipment leases and loans issued by small to middle-market companies located primarily in the United States and Canada. It focuses on providing self-originated deals for predominantly non-sponsored, privately-held borrowers.

Policy Index and Benchmark History

Total Plan Policy Index	As of 7/1/20	4/1/20	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	4/1/18	10/1/17	2/1/17	1/1/17
10 Year Treasury +2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
60/40 MSCI World/BBgBarc Global Aggregate (RP)	0.0%	4.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
60/40 Russell 3000/BBgBarc US Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
91 Day T-Bills	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Aggregate	21.0%	18.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	12.0%	10.0%
BBgBarc BA Intermediate HY	10.0%	8.0%	8.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	6.0%	6.0%
BBgBarc BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Credit BAA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Multiverse	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%
BBgBarc TIPS	0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Bloomberg Commodity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Citigroup non-US WGBI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CPI + 5% (RA)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Blended Public Real Asset	4.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	0.0%	0.0%	0.0%
Blended Private Real Asset	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	8.0%	7.0%	5.0%
Libor +4% (HF)	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	5.0%
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	9.0%	9.0%	9.0%	7.6%	5.7%	3.8%	1.9%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	19.0%	19.0%
MSCI ACWI ex-US IMI (Net)	9.0%	9.0%	9.0%	11.4%	13.3%	15.2%	17.1%	19.0%	19.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NCREIF ODCE	10.0%	9.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	7.0%	7.0%
NCREIF Property	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 3000	21.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	21.0%	21.0%	23.0%	28.0%
Russell 3000 +3% (PE)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	7.0%	7.0%
Russell 3000 +3% 1Q Lag (PE)	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	7.0%	0.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Total Plan Policy Index	As of: 10/1/16	9/1/16	1/1/16	7/1/14	1/1/14	2/1/13	1/1/11	10/1/10	1/1/09	5/1/07	6/1/00	3/1/99	9/1/98	7/1/96
10 Year Treasury +2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	10.0%	10.0%
60/40 MSCI World/BBgBarc Global Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
60/40 Russell 3000/BBgBarc US Aggregate (RP)	8.0%	8.0%	8.0%	8.0%	8.0%	6.0%	6.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
91 Day T-Bills	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Aggregate	10.0%	10.0%	10.0%	10.0%	9.3%	11.0%	11.0%	12.9%	27.0%	27.0%	29.0%	25.0%	21.0%	21.0%
BBgBarc BA Intermediate HY	6.0%	5.0%	5.0%	5.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Credit BAA	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Multiverse	3.0%	3.0%	3.0%	3.0%	3.8%	4.4%	4.4%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc TIPS	2.0%	2.0%	2.0%	2.0%	2.0%	3.1%	3.3%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Commodity	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Citigroup non-US WGBI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	9.0%	9.0%
CPI + 5% (RA)	0.0%	2.0%	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Blended Public Real Asset	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Blended Private Real Asset	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Libor +4% (HF)	5.0%	5.0%	5.0%	4.0%	4.0%	3.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	18.0%	18.0%	18.0%	21.0%	21.0%	15.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	19.0%	20.0%	20.0%	20.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI (Net)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	20.0%	20.0%
NCREIF ODCE	7.0%	7.0%	7.0%	6.0%	6.0%	5.0%	5.0%	5.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NCREIF Property	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	6.0%	0.0%	0.0%	0.0%
Russell 1000	0.0%	0.0%	24.0%	24.0%	24.0%	28.0%	28.0%	28.0%	37.0%	37.0%	40.0%	22.0%	20.0%	20.0%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	5.0%	0.0%
Russell 2000	0.0%	0.0%	4.0%	6.0%	6.0%	7.0%	7.0%	7.0%	9.0%	9.0%	10.0%	15.0%	15.0%	15.0%
Russell 3000	28.0%	28.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 3000 +3% (PE)	7.0%	7.0%	7.0%	7.0%	7.0%	8.0%	8.0%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 3000 +3% 1Q Lag (PE)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Public Equity Benchmark

As of:	7/1/20	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	10/1/17	2/1/17	10/1/16	9/1/16	1/1/16	1/1/14	10/1/10	5/1/07	6/1/00	3/1/99	9/1/98	1/1/96
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.0%	31.3%	23.1%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	23.1%	22.5%	18.5%	13.9%	9.3%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.5%	45.2%	40.4%	41.7%	41.7%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI (Net)	23.1%	22.5%	27.8%	32.4%	37.0%	41.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	32.3%	33.3%	33.3%
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	48.0%	52.8%	55.2%	61.5%	35.5%	33.3%	33.3%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	8.4%	0.0%
Russell 2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	12.0%	13.2%	13.5%	15.4%	24.2%	25.0%	25.0%
Russell 3000	53.9%	55.0%	53.7%	53.7%	53.7%	53.7%	52.5%	54.8%	59.6%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.4%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

US Equity Benchmark

As of:	9/1/16	1/1/16	6/1/00	3/1/99	9/1/98	7/1/96	1/1/95
Russell 1000	0.0%	85.7%	80.0%	52.0%	50.0%	50.0%	69.0%
Russell 1000 Value	0.0%	0.0%	0.0%	12.0%	12.5%	0.0%	0.0%
Russell 2000	0.0%	14.3%	20.0%	36.0%	37.5%	37.5%	14.0%
Russell 3000	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S & P 500	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	17.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

International Equity Benchmark

As of:	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	10/1/17	1/1/14	6/1/00	1/1/96
MSCI ACWI ex US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	50.0%	40.0%	30.0%	20.0%	10.0%	0.0%	0.0%	100.0%	0.0%
MSCI ACWI ex US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
MSCI ACWI ex US IMI (Net)	50.0%	60.0%	70.0%	80.0%	90.0%	100.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Fixed Income Benchmark

As of:	7/1/20	4/1/20	10/1/19	10/1/17	2/1/17	10/1/16	4/1/16	7/1/14	1/1/14	2/1/13	1/1/11	10/1/10	6/1/00	3/1/99	7/1/96
BBgBarc Aggregate	67.7%	69.2%	63.6%	66.7%	57.1%	52.6%	55.5%	50.0%	46.3%	50.0%	50.0%	58.6%	100.0%	83.3%	70.0%
BBgBarc BA Intermediate HY	32.3%	30.8%	36.4%	33.3%	28.6%	31.6%	27.8%	25.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.3%	0.0%	0.0%	0.0%
BBgBarc Credit BAA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.0%	15.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Multiverse	0.0%	0.0%	0.0%	0.0%	14.3%	15.8%	16.7%	15.0%	18.8%	20.0%	20.0%	20.5%	0.0%	0.0%	0.0%
BBgBarc TIPS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	14.0%	15.0%	13.6%	0.0%	0.0%	0.0%
Citigroup non-US WGBI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	30.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Opportunistic Credit Benchmark

As of:	1/1/14	12/1/09
BBgBarc BA Intermediate HY	100.0%	0.0%
BBgBarc Credit BAA	0.0%	100.0%
	100.0%	100.0%

Alternatives Benchmark	As of:						
	10/1/18	4/1/18	2/1/17	4/1/16	1/1/16	1/1/14	1/1/11
60/40 Russell 3000/BBgBarc US Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%
Bloomberg Commodity	0.0%	0.0%	0.0%	0.0%	17.7%	18.8%	15.0%
CPI + 5% (RA)	0.0%	0.0%	0.0%	0.0%	11.8%	12.5%	0.0%
Libor +4% (HF)	50.0%	46.2%	46.2%	41.7%	29.4%	25.0%	15.0%
Russell 3000 +3% (PE)	0.0%	0.0%	53.8%	58.3%	41.2%	43.8%	40.0%
Russell 3000 +3% 1Q Lag (PE)	50.0%	53.8%	0.0%	0.0%	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Private Equity Benchmark	As of:	
	4/1/18	10/1/10
Russell 3000 +3% 1Q Lag	100.0%	0.0%
Russell 3000 +3%	0.0%	100.0%
	100.0%	100.0%

Hedge Fund Benchmark	As of:
	10/1/10
Libor +4%	100.0%
	100.0%

Inflation Hedge	As of:						
	7/1/20	4/1/20	10/1/19	4/1/18	2/1/17	10/1/16	4/1/16
BBgBarc TIPS	0.00%	0.00%	5.88%	11.1%	12.5%	14.3%	14.3%
Bloomberg Commodity	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	21.4%
CPI + 5% (RA)	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	14.3%
Blended Liquid Real Asset	23.53%	35.29%	35.29%	33.3%	0.0%	0.0%	0.0%
Blended Private Real Asset	17.65%	11.77%	11.77%	11.1%	43.8%	35.7%	0.0%
NCREIF ODCE	58.82%	52.94%	47.06%	44.4%	43.8%	50.0%	50.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Public Real Asset Benchmark	As of:		
	5/1/20	10/1/16	1/1/14
Bloomberg Roll Select Commodity	25.0%	33.3%	0.0%
S&P Global Large-MidCap Commodity and Resources	25.0%	33.3%	0.0%
S&P Global Infrastructure	25.0%	33.4%	0.0%
CPI + 5%	0.0%	0.0%	100.0%
BBgBarc TIPS	25.0%	0.0%	0.0%
	100.0%	100.0%	100.0%

Private Real Asset Benchmark	As of:		
	4/1/18	10/1/16	1/1/14
Bloomberg Roll Select Commodity	0.0%	34.0%	0.0%
S&P Global Large-MidCap Commodity and Resources	0.0%	33.0%	0.0%
50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	100.0%	0.0%	0.0%
S&P Global Infrastructure	0.0%	33.0%	0.0%
CPI + 5%	0.0%	0.0%	100.0%
	100.0%	100.0%	100.0%

Private RA Secondary Benchmark	As of:
	9/1/14
Cambridge Associates Private Natural Resources 1 Qtr Lag	50.0%
Cambridge Associates Private Infrastructure 1 Qtr Lag	50.0%
	100.0%

Real Estate Benchmark	As of:		
	1/1/09	6/1/00	7/1/96
10 Year Treasury +2%	0.0%	0.0%	100.0%
NCREIF ODCE	100.0%	0.0%	0.0%
NCREIF Property	0.0%	100.0%	0.0%
	100.0%	100.0%	100.0%

Baillie Gifford Benchmark	As of:	
	1/1/14	5/1/12
MSCI ACWI ex-US	100.0%	0.0%
MSCI EAFE	0.0%	100.0%
	100.0%	100.0%

Baillie Gifford Secondary Benchmark	As of:	
	1/1/14	5/1/12
MSCI ACWI ex-US Growth	100.0%	0.0%
MSCI EAFE Growth	0.0%	100.0%
	100.0%	100.0%

Brigade Secondary Benchmark	As of:
	8/1/10
BBgBarc High Yield	50.0%
Credit Suisse Leveraged Loans	50.0%
	100.0%

PIMCO Diversified	As of:
	9/1/17
JPMorgan EMBI Global	33.333%
BofAMLBB-BRatedDvlpdMktsHYHdgdUSD	33.333%
Global Agg Credit Ex EM USD hedged	33.334%
	100.0%

SSgA Custom Real Asset	As of:	
	5/1/20	11/1/16
Bloomberg Roll Select Commodity	25.00%	33.33%
S&P Global Large-MidCap Commodity and Resources	25.00%	33.33%
S&P Global Infrastructure	25.00%	33.34%
BBgBarc TIPS	25.00%	0.00%
	100.0%	100.0%

Acadian Asset Management	
First $50 million:	0.27% per annum
Next $50 million:	0.225% per annum
Thereafter:	0.18% per annum

Baillie Gifford	
First $25 million:	0.60% per annum
Next $75 million:	0.50% per annum
Next $300 million:	0.40% per annum
Thereafter:	0.30% per annum

BlackRock-Russell 1000 Index Fund	
On All Assets:	0.01% per annum

BlackRock-Intermediate Govt Bond Index Fund	
On All Assets:	0.025% per annum

BlackRock-MSCI ACWI ex US IMI Index Fund	
On All Assets:	0.045% per annum

DoubleLine	
On All Assets:	0.30% per annum

Franklin Templeton Investment	
First $50 million:	0.40% per annum
Next $50 million:	0.30% per annum
Thereafter:	0.25% per annum

FIAM Bond	
First $50 million:	0.25% per annum
Next $50 million:	0.20% per annum
Next $100 million:	0.125% per annum
Thereafter:	0.10% per annum

PanAgora Asset Management	
First $50 million:	0.25% per annum
Next $50 million:	0.15% per annum
Thereafter:	0.10% per annum

Parametric Overlay	
First $50 million:	0.12% per annum
Next $100 million:	0.10% per annum
Thereafter:	0.05% per annum
Plus monthly reporting fee of $1500	

Parametric Currency Overlay	
First $250 million:	0.05% per annum
Thereafter:	0.03% per annum

PIMCO Diversified	
On All Assets:	0.75% per annum

QMA	
First $100 million:	0.55% per annum
Next $100 million:	0.53% per annum
Thereafter:	0.49% per annum

Western Asset Management	
On All Assets:	0.25% per annum
Performance Fee:	20.00%

Mondrian Investment Partners

Assets Below $190 million	
First $20 million:	1.00% per annum
Thereafter:	0.33% per annum

Assets Above $190 million	
First $50 million:	1.00% per annum
Next $150 million:	0.19% per annum
Thereafter:	0.33% per annum

NISA	
First $500 million:	0.15% per annum
Thereafter:	0.125% per annum

Name	Primary Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000	--	--	--
DE Shaw	Russell 1000	⚑	✓	⚑
PanAgora Defuseq	Russell 1000	--	--	--
QMA US Small Cap	Russell 2000	--	--	--
Baillie Gifford	MSCI ACWI ex US	✓	✓	✓
Mondrian	MSCI ACWI ex USA Value Gross	✓	⚑	✓
DoubleLine	BBgBarc US Aggregate TR	--	--	--
FIAM Bond	BBgBarc US Aggregate TR	✓	✓	✓
NISA Core Bond	BBgBarc US Aggregate TR	--	--	--
Western TRU	3-Month Libor Total Return USD	✓	✓	⚑
AG CSF Annex Dislocation Fund	BBgBarc BA Intermediate HY	--	--	--
Angelo Gordon Opportunistic	BBgBarc US Aggregate TR	✓	--	⚑
Angelo Gordon STAR	BBgBarc US Aggregate TR	✓	--	✓
Angelo Gordon Credit Solutions	BBgBarc BA Intermediate HY	--	--	--
Beach Point Select	BBgBarc BA Intermediate HY	✓	✓	✓
Brigade Capital	BBgBarc BA Intermediate HY	⚑	⚑	⚑
PIMCO Diversified	Blended PIMCO Diversified Index	--	--	--
Franklin Templeton	BBgBarc Multiverse TR	--	--	--
Blackrock DL Feeder IX-U	Cliffwater Direct Lending Index	--	--	--
PIMCO Private Income	BBgBarc BA Intermediate HY	--	--	--
TCP Direct Lending VIII	Cliffwater Direct Lending Index	--	--	--
White Oak Yield	Cliffwater Direct Lending Index	--	--	--
Aberdeen Standard GARS	Libor 1 month +4%	--	--	--
Graham Quant Macro	Libor 1 month +4%	--	--	--
PIMCO MAARS Fund LP	Libor 1 month +4%	--	--	--

Rule 1 - Manager has underperformed the benchmark index for the five year period.
Rule 2 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period.
Rule 3 - Excess 5 Year Sharpe Ratio vs. Benchmark is positive

Name	Primary Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000	--	--	--
DE Shaw	Russell 1000	⚐	✓	✓
PanAgora Defuseq	Russell 1000	--	--	--
QMA US Small Cap	Russell 2000	--	--	--
Baillie Gifford	MSCI ACWI ex US	✓	✓	✓
Mondrian	MSCI ACWI ex USA Value Gross	✓	✓	✓
DoubleLine	BBgBarc US Aggregate TR	--	--	--
FIAM Bond	BBgBarc US Aggregate TR	✓	✓	✓
NISA Core Bond	BBgBarc US Aggregate TR	--	--	--
Western TRU	3-Month Libor Total Return USD	✓	✓	⚐
AG CSF Annex Dislocation Fund	BBgBarc BA Intermediate HY	--	--	--
Angelo Gordon Opportunistic	BBgBarc US Aggregate TR	✓	--	⚐
Angelo Gordon STAR	BBgBarc US Aggregate TR	✓	--	✓
Angelo Gordon Credit Solutions	BBgBarc BA Intermediate HY	--	--	--
Beach Point Select	BBgBarc BA Intermediate HY	✓	✓	✓
Brigade Capital	BBgBarc BA Intermediate HY	⚐	⚐	⚐
PIMCO Diversified	Blended PIMCO Diversified Index	--	--	--
Franklin Templeton	BBgBarc Multiverse TR	--	--	--
Blackrock DL Feeder IX-U	Cliffwater Direct Lending Index	--	--	--
PIMCO Private Income	BBgBarc BA Intermediate HY	--	--	--
TCP Direct Lending VIII	Cliffwater Direct Lending Index	--	--	--
White Oak Yield	Cliffwater Direct Lending Index	--	--	--
Aberdeen Standard GARS	Libor 1 month +4%	--	--	--
Graham Quant Macro	Libor 1 month +4%	--	--	--
PIMCO MAARS Fund LP	Libor 1 month +4%	--	--	--

Rule 1 - Manager has underperformed the benchmark index for the five year period.
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Annual outlooks

2020 PRIVATE OUTLOOK

In the 2020 Private Equity Outlook, we focus attention on General Partner-led (GP-led) secondary transactions that have evolved and are no longer just associated with general partners trying to dispose of lingering assets that have become hard to sell. The outlook also addresses:

— The significant pull back in private equity in 2020
— Our expectations for a decline in both capital calls and distributions from buyout funds likely leading to negative net cash flows for the coming quarters
— Headwinds for perspective IPO's
— Impacts from Covid-19 on many portfolios
— Our view on how the secondary market is very different than it was during the last economic downturn

Topics of interest

BROADENING DIVERSITY CONSIDERATION

CIO Ian Toner, CFA, and Public Markets Managing Director Marianne Feeley, CFA, outline broader elements of diversity – beyond ownership – that may be used to characterize the demographic qualities of an investment firm. It frames the broader approach to understanding diversity that we are adapting at Verus, which is an integral part of our process of collecting and using information about investment managers.

AEIOU > PPPPP

Manager research and selection have long been described in the language of Ps – people, process, etc. Verus believes the familiar Ps approach, while useful, leaves out important aspects of manager assessment and their products because of its focus on inputs. We outline a vowel-based approach that concentrates research on factors that are more likely to drive investment outcomes.

Webinar replays

BROADENING DIVERSITY CONSIDERATION

AEIOU > PPPPP

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3rd quarter summary

THE ECONOMIC CLIMATE

— Real GDP contracted at a -9.0% rate year-over-year in Q2 (-31.4% quarterly annualized rate)—likely the most sudden economic recession in American history. ***p. 10***

— Europe is experiencing a drastic second wave of COVID-19 which has been sweeping across the continent. The seven-day average daily case growth of the EU and the U.K. combined rose from 4,699 to 48,807 during Q3. ***p. 9***

— Election polls and the betting markets are indicating that Joe Biden is leading President Trump materially as we move into the final weeks pre-election. In 2016, the story was largely the same, as Clinton was expected to win up until the day before the election. ***p. 18***

PORTFOLIO IMPACTS

— U.S. and emerging markets have recovered most losses year-to-date, while international remain negative. Global equities are now positive for 2020 despite an earnings recession and considerable economic uncertainty. ***p. 29***

— U.S. core inflation increased to a more normal level, rising 1.7% year-over-year in August from 1.2% in June. Inflation expectations also normalized. The 10yr U.S. TIPS inflation breakeven rate recovered to 1.6%, from a low of 0.5% on March 19th. The breakeven rate of inflation is now on par with actual year-over-year inflation. ***p. 11***

THE INVESTMENT CLIMATE

— The Federal Reserve announced a notable change to its inflation targeting approach, now aiming to achieve "inflation moderately above 2% for some time so that inflation averages 2% over time and longer-term inflation expectations remain well anchored at 2%." This was a reversal from the prior goal of achieving 2% inflation. ***p. 22***

— The Federal Reserve maintained an accommodative tone, and most members of the FOMC held their view that short rates are likely to stay near-zero through 2023—eventually moving to 2.50% over the longer-term. ***p. 22***

— According to FactSet, S&P 500 Q3 earnings are expected to be down -20.5%. However, earnings in Q2 beat expectations by 12.5% (-31.6% YoY vs. -44.1%). Another large positive surprise in Q3 would be welcome news to investors. ***p. 28***

ASSET ALLOCATION ISSUES

— U.S. equities delivered +8.9% over the quarter, reaching a new high in September before giving back some gains. The S&P 500 is up +5.6% year-to-date, despite an earnings recession and considerable economic uncertainty. ***p. 30***

— The U.S. dollar fell -3.5% in Q3, continuing a downward trend since a sudden jump in March on safe-haven buying. The dollar has now completely unwound the gains experienced during the market sell-off. ***p. 38***

A more neutral risk positioning may be warranted in the current environment

There seems to be a high degree of uncertainty regarding the future market path

What drove the market in Q3?

"Europeans face prospect of 2nd lockdowns as COVID cases surge"

DAILY NEW CONFIRMED CASES IN THE EU27 AND THE U.K. COMBINED

4/30	5/31	6/30	7/31	8/31	9/30
14,261	5,985	4,699	9,127	22,225	48,807

Article Source: CBS News, September 21st, 2020

"Second $1,200 stimulus checks had bipartisan support. Now they could be a longshot"

U.S. PERSONAL INCOME GROWTH (YEAR-OVER-YEAR)

Mar	Apr	May	Jun	Jul	Aug
1.8%	14.1%	9.3%	7.8%	8.1%	4.7%

Article Source: CNBC, September 9th, 2020

"The US job market is gradually recovering from the pandemic lockdown shock"

U-3 UNEMPLOYMENT RATE

Apr	May	Jun	Jul	Aug	Sep
14.7%	13.3%	11.1%	10.2%	8.4%	7.9%

Article Source: CNN Business, September 3rd, 2020

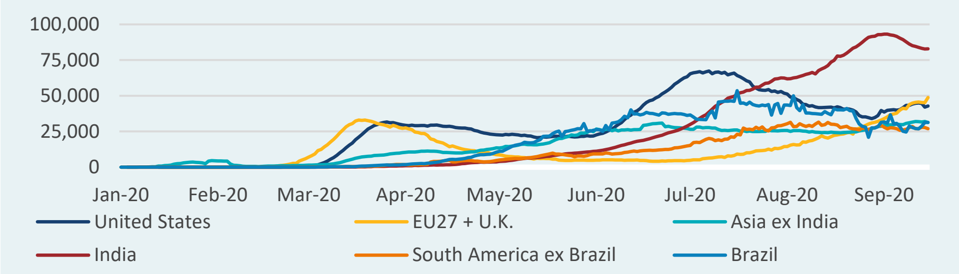
"The market isn't convinced the Federal Reserve can achieve its inflation objective"

TEN-YEAR BREAKEVEN INFLATION RATES

4/30	5/31	6/30	7/31	8/31	9/30
1.1%	1.1%	1.3%	1.6%	1.8%	1.6%

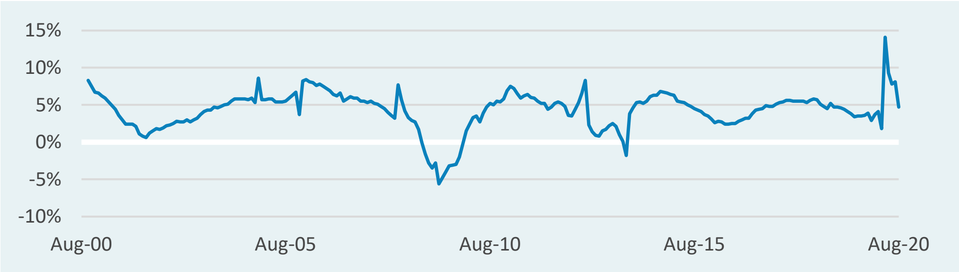
Article Source: CNBC, September 17th, 2020

SEVEN-DAY TRAILING AVERAGE DAILY CASE GROWTH BY REGION



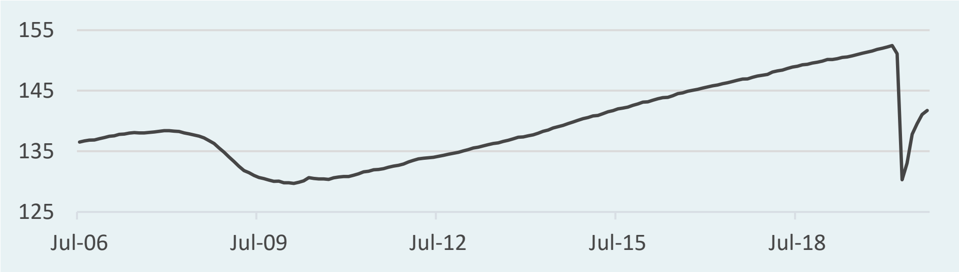
Source: Bloomberg, as of 9/30/20

U.S. PERSONAL INCOME GROWTH (YEAR-OVER-YEAR)



Source: Bureau of Economic Analysis, Bloomberg, as of 8/31/20

NON-FARM EMPLOYEES ON U.S. PAYROLLS (MILLIONS)



Source: Bureau of Labor Statistics, Bloomberg, as of 9/30/20

Economic environment

U.S. economics summary

— Real GDP contracted at a -9.0% rate year-over-year in the second quarter (-31.4% quarterly annualized rate)—likely the most sudden economic recession in American history.

— The Atlanta Fed's forecast for third quarter growth is -10.7% year-over-year (+33.8% quarterly annualized rate). This projection was based on the expectations that consumption rebounds materially, household investment picks up, businesses begin re-stocking shelves that were allowed to run empty, and supporting fiscal policy.

— The U.S. labor market partially recovered from the recent shock. Unemployment fell from 14.7% in April to 7.9% in September. A report released in September indicated 60% of temporary business closures during the pandemic were now permanent.

— Correlation between election results and market performance has been weak, and the outcome depends greatly on how the data is sliced and the timing of economic events. The S&P 500 has experienced stronger gains with a Democrat in power, though the results are skewed by extreme events such as the Great Depression.

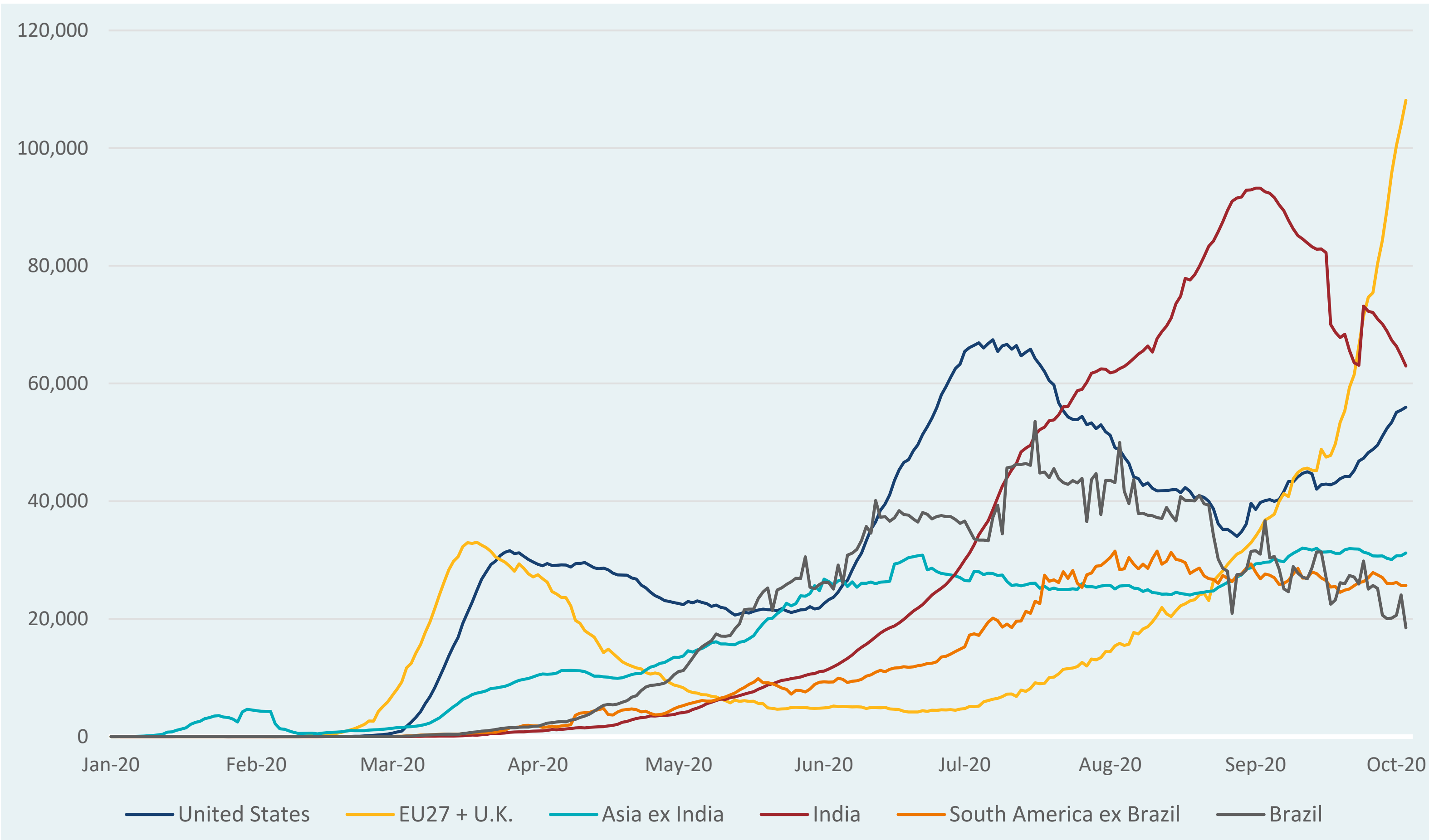
— The NFIB Small Business Optimism Index recovered to 104.0 in Q3, which was in line with pre-pandemic levels. The survey concluded that half of the jobs lost in March and April have been recouped, but that the pace of recovery has slowed.

— The median home price increased 11.1% year-over-year in September, according to Realtor.com. U.S. housing supply has reached record tightness. In August, 3.3 months worth of homes were on the market, which was the lowest inventory ever recorded since the government began tracking this data in 1963.

	Most Recent	**12 Months Prior**
GDP *(YoY)*	(9.0%) *6/30/20*	2.0% *6/30/19*
Inflation *(CPI YoY, Core)*	1.7% *8/31/20*	2.4% *8/31/19*
Expected Inflation *(5yr-5yr forward)*	1.7% *9/30/20*	1.7% *9/30/19*
Fed Funds Target Range	0% – 0.25% *9/30/20*	1.75% – 2.00% *9/30/19*
10-Year Rate	0.7% *9/30/20*	1.7% *9/30/19*
U-3 Unemployment	7.9% *9/30/20*	3.5% *9/30/19*
U-6 Unemployment	12.8% *9/30/20*	6.9% *9/30/19*

COVID-19 update

Seven-day trailing daily average case growth by region



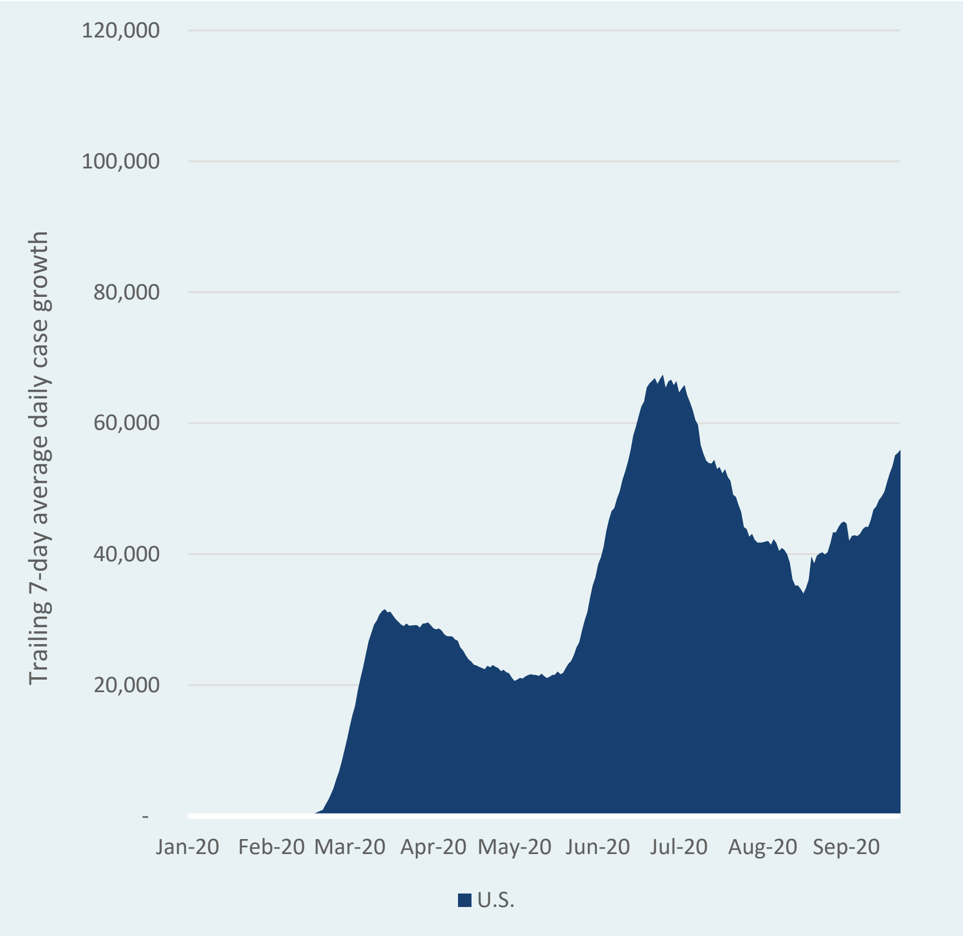
Source: Bloomberg, as of 10/18/20

Case growth has increased exponentially across Europe over the past month, resulting in broad reimplementation of economically-restrictive social distancing controls

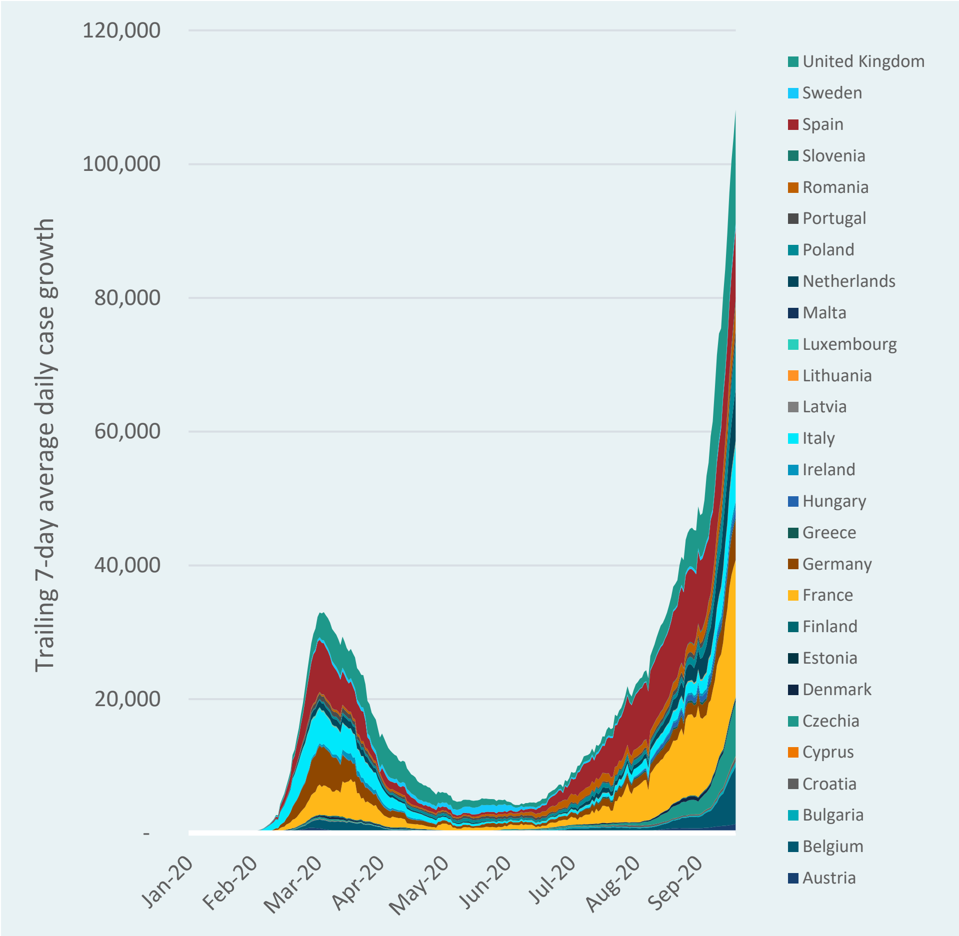
Deaths have begun to increase on a several-week lag to local case growth, as expected, but remain at lower levels than those seen earlier this year

COVID-19 update

UNITED STATES



EU27 + UNITED KINGDOM



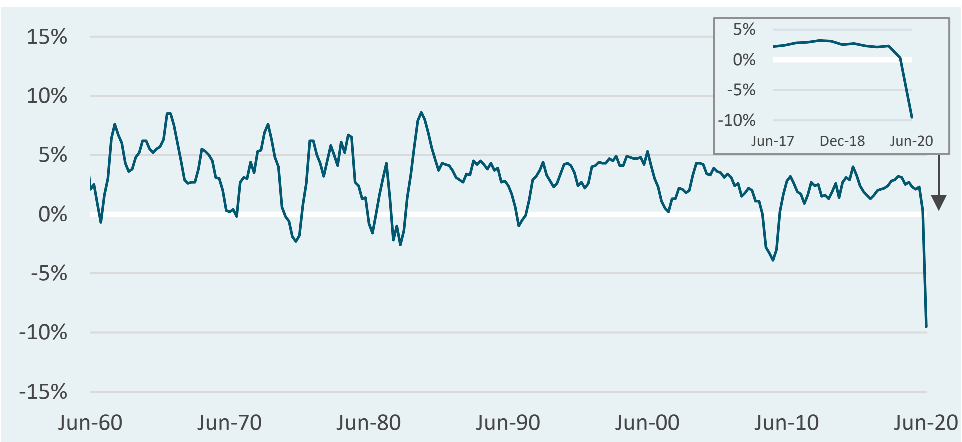
Source: Bloomberg, as of 10/18/20

GDP growth

Real GDP contracted -9.0% year-over-year in Q2 (-31.4% quarterly annualized rate)—likely the most sudden economic recession in American history. Personal consumption expenditures shrunk at a quarterly annualized pace of -24%. The decline was driven by a significant pullback in spending on services (-22%) as economic activity remained constrained. U.S. households and businesses exhibited conservatism in the face of an uncertain outlook on both the virus and policy response fronts. Fixed investment slumped -5.3% and private inventories fell -3.5% as companies appeared unwilling to proactively restock their shelves. Trade remained a tailwind to GDP as the value of imported goods declined more than the value of exported goods.

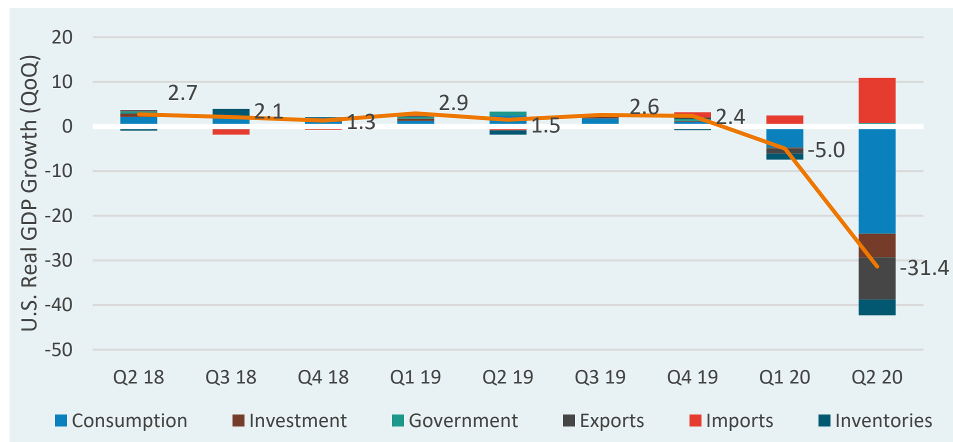
The Atlanta Fed's forecast for third quarter-growth was +33.8% on a quarter-over-quarter annualized basis (-10.7% year-over-year), as of September 30th. This projection was based on an expectation for consumption to rebound materially, household investment to pick up, businesses to begin re-stocking shelves which were allowed to run empty in the second quarter, and a continuation of supportive fiscal policy. Looking ahead, the strength of the economic recovery will likely remain predicated on the willingness and ability of consumers to spend, the willingness of businesses to supply that demand, and the magnitude of fiscal support.

U.S. REAL GDP GROWTH (YOY)



Source: Bloomberg, as of 6/30/20

U.S. GDP GROWTH ATTRIBUTION



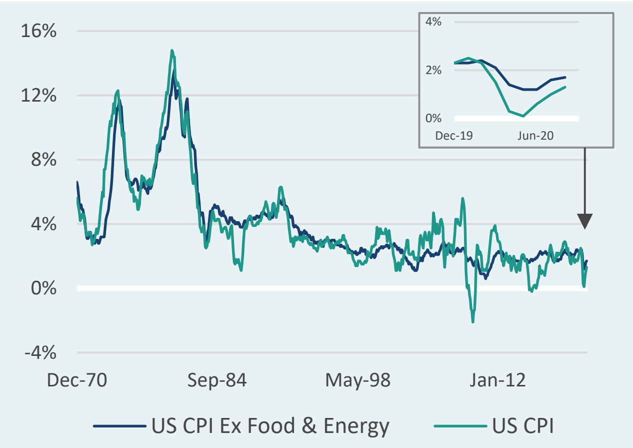
Source: BEA, annualized quarterly rate, as of 6/30/20

Inflation

Growth in headline inflation continued to rebound toward more normal levels in Q3, reaching 1.4% year-over-year in September after bottoming at 0.1% in May. Food items—specifically meats, poultry, fish, eggs, and dairy-related products—continued to drive the recovery in demand for groceries due to COVID-driven restaurant closures. Core inflation, which excludes the more volatile food and energy components, picked up from 1.2% to 1.7% as price increases for used cars and trucks (+10.3%) and medical care services (+4.9%) outweighed a dip in airline fares (-25.0%).

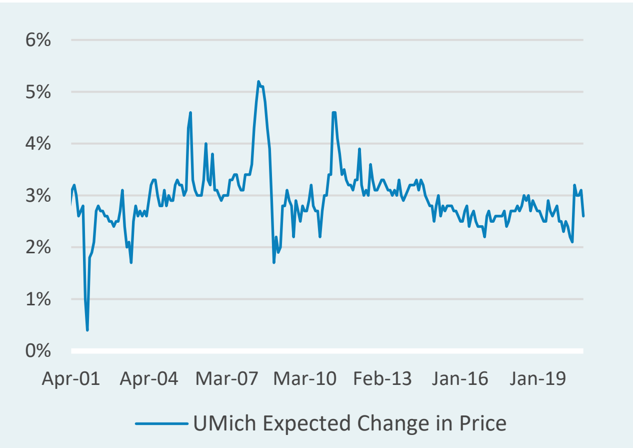
Ten- and 30-year breakeven inflation rates recovered from 1.3% to 1.6% and from 1.6% to 1.8%, respectively, as market participants likely became slightly more bullish on longer-term growth and inflation outlooks. Still, there remains skepticism around the Fed's ability to sustainably achieve its inflation target average of 2.0%. Year-over-year growth in core PCE inflation recovered to 1.6% in August but remained below the Fed's target. Officials have stated that in the future they will be less likely to clamp down on rising inflation with restrictive policy and will be more likely to let inflation run above 2.0% for some time.

U.S. CPI (YOY)



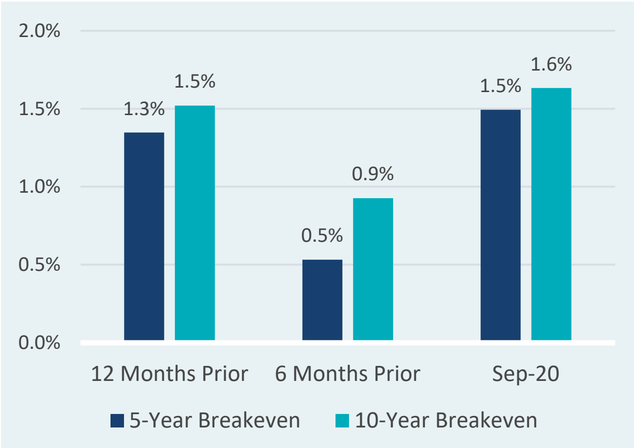
Source: Bloomberg, as of 8/31/20

Consumer Inflation Expectations



Source: University of Michigan, as of 9/30/20

Breakeven Inflation Rates



Source: Bloomberg, as of 9/30/20

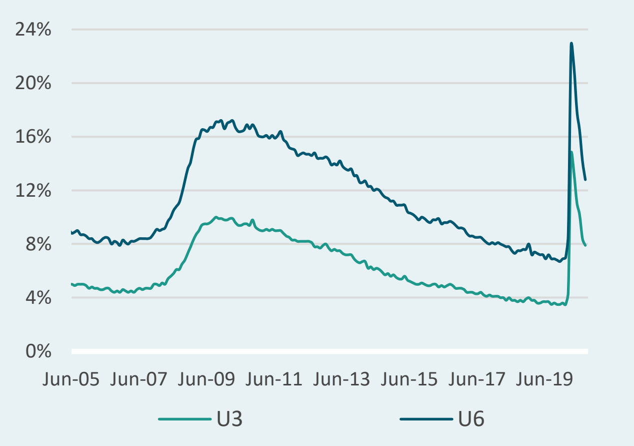
Labor market

The U.S. labor market has partially recovered from the shock sustained in Q1 and Q2. Unemployment fell from 14.7% in April to 7.9% in September. During the economic contraction, the labor participation rate also fell rather dramatically. Most job losses during the pandemic were described by workers as temporary in nature. Most "temporary" job losses have in fact turned out to be temporary, as indicated below. A smaller portion of temporary job losses have unfortunately been reclassified as permanent. We remain watchful regarding how many temporary job losses transition into the "permanent" category in the coming months.

A report released by Yelp in September indicated 60% of businesses that had temporarily closed during the COVID-19 pandemic are now permanently closed. The businesses hit the hardest included: restaurants, bars, retail, fitness, and beauty services. It will be important to monitor whether workers come back to the labor force and once again search for employment as the U.S. economy recovers, or whether these trends result in longer-term unemployment.

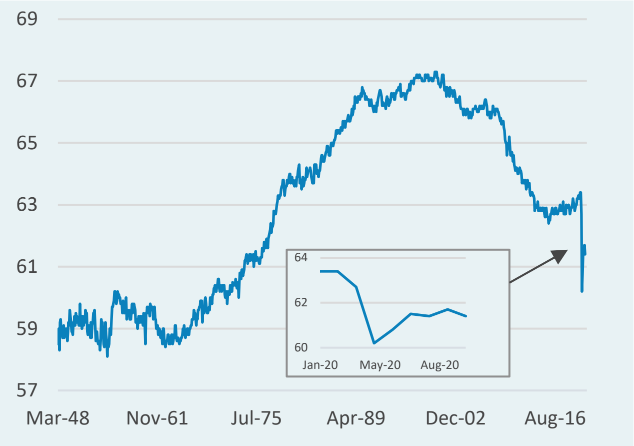
U.S. workers continue to come back to the labor force

U.S. UNEMPLOYMENT



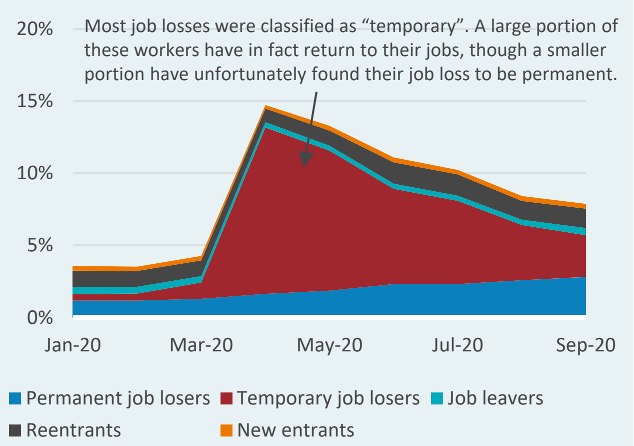
Source: FRED, as of 9/30/20

LABOR PARTICIPATION RATE



Source: FRED, as of 9/30/20

UNEMPLOYMENT DECOMPOSITION BY REASON

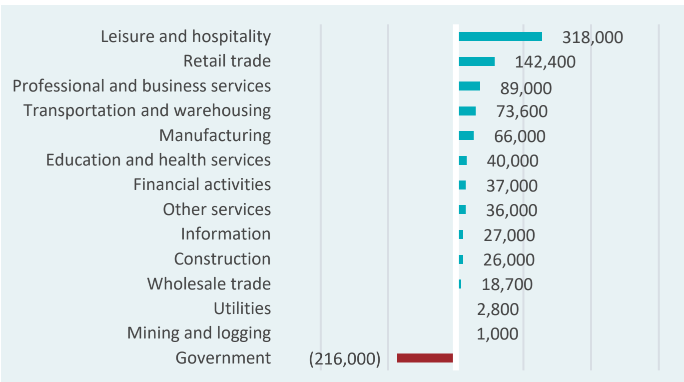


Source: BLS, as of 9/30/20

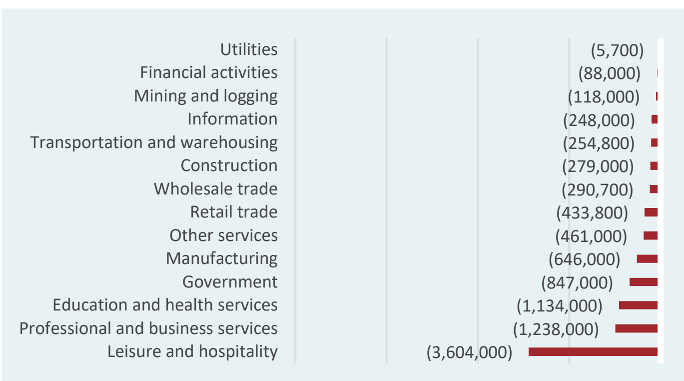
September 2020 jobs report

+661,000 (exp. +859,000) - net revisions to prior two months = +145k

1-MONTH CHANGE



12-MONTH CHANGE



TRAILING % CHANGE

Payrolls continued to recover in the harder-hit services sectors in the third quarter, but payrolls remain well below pre-pandemic levels

All major sectors still have lower payrolls relative to September 2019

Source: BLS, as of 9/30/20

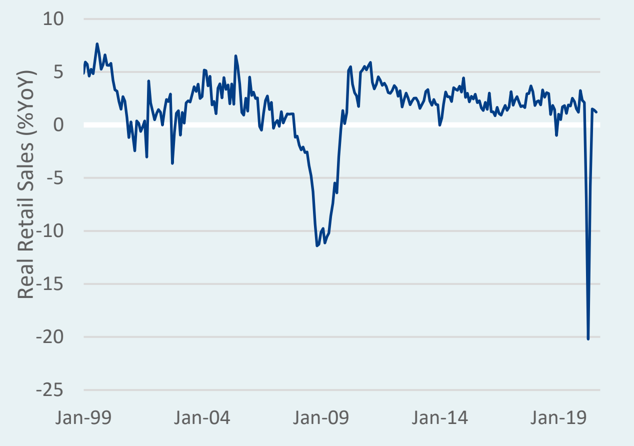
The consumer

After collapsing -20% year-over-year in April, U.S. real retail sales have now fully recovered and were positive +1.2% in August. Larger purchases, such as automobiles and homes, also slowed considerably earlier in the year but have since rebounded.

The current combination of ultra-low interest rates and vast government fiscal stimulus appears to be supporting many parts of the economy. Despite the inability of households to spend on some traditional discretionary items, other types of purchases have swelled. Recent consumption patterns seem to indicate that government support is having the intended effect and that the economy is stabilizing.

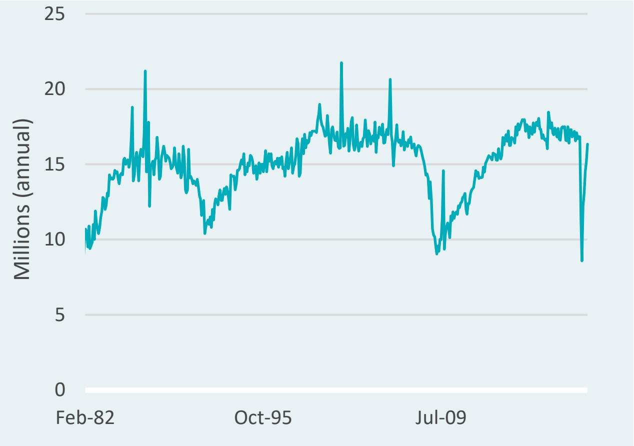
The U.S. personal savings rate fell to 14% in August, largely due to the ending of special unemployment benefits, which expired on July 31st. Broad economic uncertainty typically increases the desire for saving, which is likely the case in today's environment. But perhaps an even greater effect is the overall inability or unwillingness of households to spend on certain items such as vacations and restaurant dining.

REAL RETAIL SALES GROWTH (YOY)



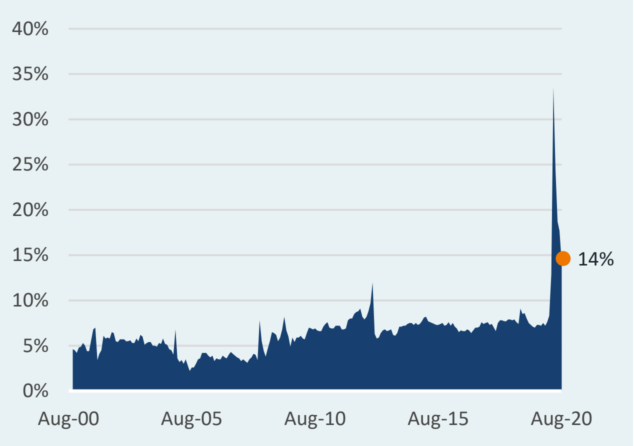
Source: FRED, as of 8/31/20

AUTO SALES



Source: Federal Reserve, as of 9/30/20

PERSONAL SAVINGS RATE



Source: FRED, as of 8/31/20

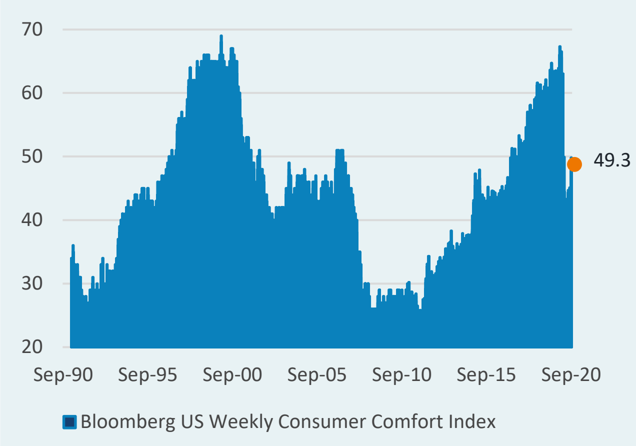
Sentiment

Despite the more optimistic picture painted by a recovery in consumer spending, auto sales, and the housing market, consumer sentiment remains far below the near record-highs of early 2020.

The Bloomberg Consumer Comfort Index attempts to gauge Americans' views on the economy, their personal financial situation, and buying conditions. The index sits at 49.3, compared to a high of 67.3 in January. The University of Michigan Consumer Sentiment Survey attempts to gauge attitudes about the business climate, personal finances, and spending conditions. The index currently sits at 80.4, down from 101.0 in February.

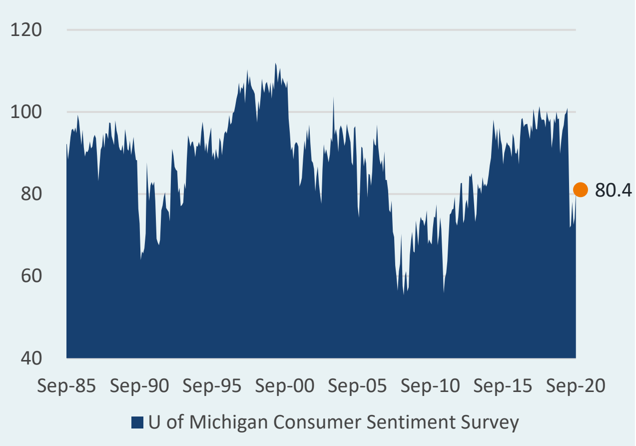
The NFIB Small Business Optimism Index recovered to 104.0 in Q3, which is in line with pre-pandemic levels. The survey concluded that half of the jobs lost in March and April have been recouped, but that the pace of recovery has slowed. Businesses generally expect the economy to continue growing, and hiring plans are now on track with pre-COVID levels.

CONSUMER COMFORT



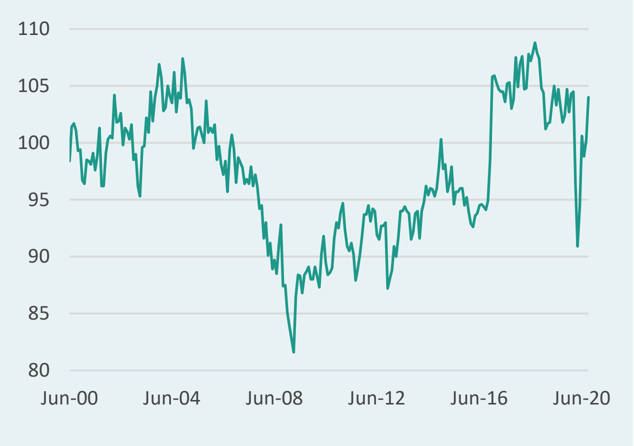
Source: Bloomberg, as of 9/30/20

CONSUMER SENTIMENT



Source: University of Michigan, as of 9/30/20

SMALL BUSINESS OPTIMISM



Source: NFIB, as of 9/30/20

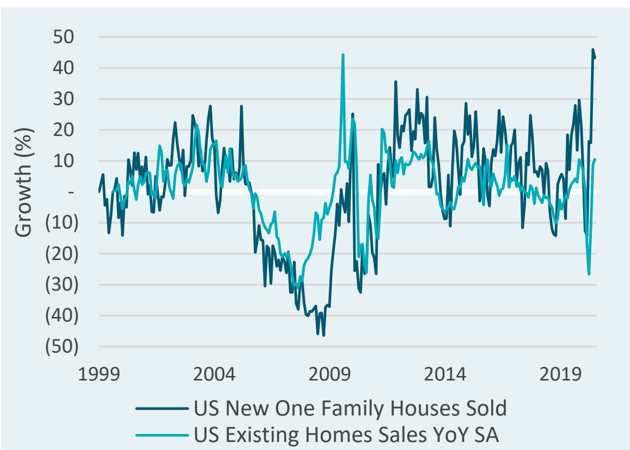
Housing

Existing home sales increased intensely over the summer, with existing home purchase activity up 10.5% year-over-year and new home sales higher by a whopping 43.2%. A variety of forces have likely aligned to deliver recent strength, including record-low mortgage interest rates, the desire of many Americans to increase their living space due to the new working-from-home environment, and a record-thin supply of homes on the market.

The portion of U.S. mortgages in the COVID-19 government forbearance program dropped significantly to 5.6% during the first week of October. This compared to 6.8% the previous week and a high of 8.6% earlier in the year, according to mortgage data firm Black Knight. This positive news eases concerns that the COVID-19 slowdown might lead to another housing crisis.

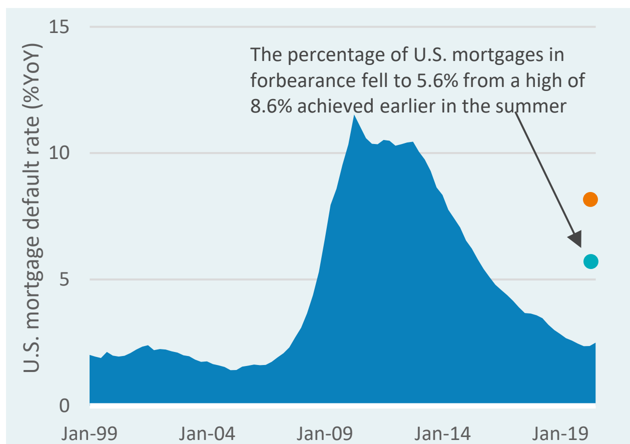
The extremely tight supply of homes has been a major contributor to the recent housing boom. In August, 3.3 months worth of homes were available on the market, which was the lowest inventory level ever recorded since the U.S. government began tracking this data in 1963.

U.S. HOME SALES (YOY)



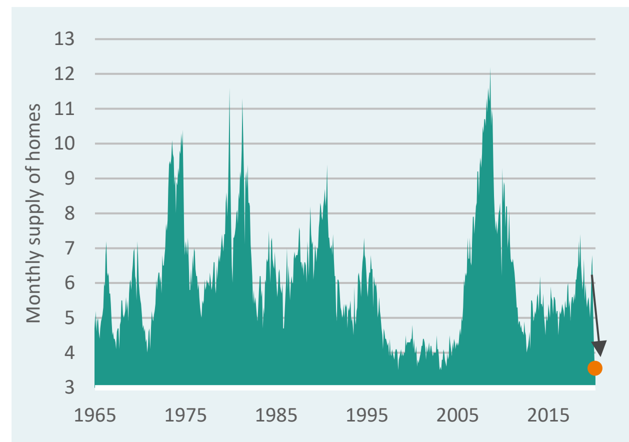
Source: FRED, as of 8/31/20

MORTGAGE DEFAULT RATE (%)



Source: FRED, as of 6/30/20, Black Knight as of 10/9/20

U.S. HOME SUPPLY



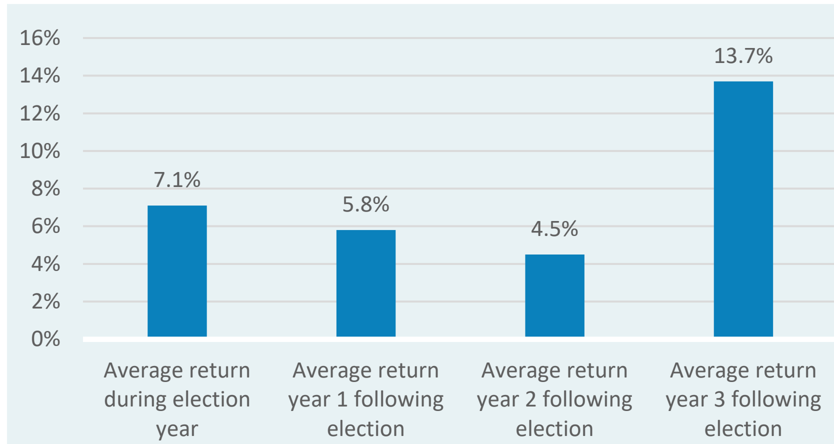
Source: FRED, as of 8/31/20

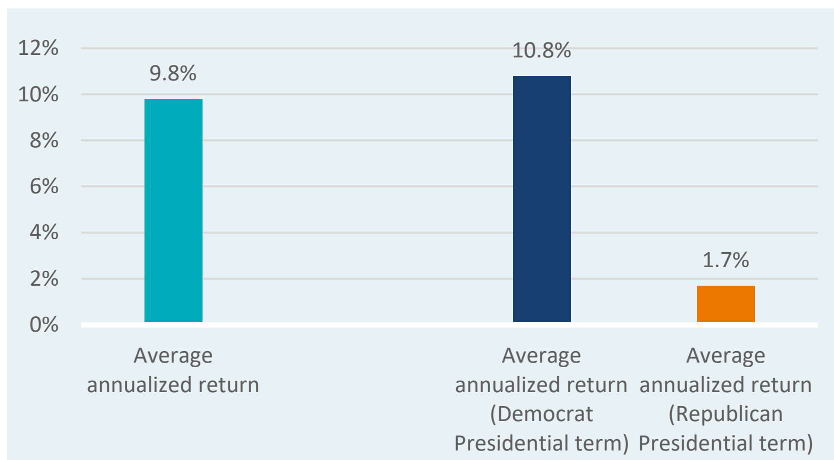
U.S. presidential election

Correlation between election results and long-term market performance has generally been weak, and the outcome depends greatly on how the data is sliced, as well as the timing of economic and geopolitical events which are often unrelated to elections. The S&P 500 has experienced stronger gains with a Democrat in power, though the results are skewed by extreme events such as the Great Depression (Herbert Hoover saw a -77.1% total return during his presidency, followed by a +205.5% total return in Franklin D. Roosevelt's first term). These events have had a significant impact on the "average" market performance of Democrat and Republican Presidencies.

Markets seem to view a Donald Trump reelection as a positive for markets. But recently investors have also warmed to the idea of a Joe Biden victory, due to expectations for greater fiscal support to the economy which may counteract negative effects of Democratic Party proposals for higher corporate taxes and tax hikes on wealthier households.

PRESIDENTIAL ELECTION & U.S. EQUITY PERFORMANCE (1928 – 2016)





The relationship between election years and market performance has been muddy

Source: Schwab, Bloomberg – S&P 500 Index
Note: Stronger equity performance during one party or the other does not necessarily imply that the party's leadership led to that market performance. The timing of large and significant shocks to the economy such as the Great Depression, natural disasters, and geopolitical turmoil have influenced the performance figures above.

How are we viewing the polling data?

The polls and the betting markets indicate that Biden is leading President Trump materially as we move into the final weeks pre-election. In 2016, the story was largely the same, as Clinton was expected to win up until the day before the election.

"Clinton has 90 percent chance of winning" – Reuters, 11/7/2016

"Election 2016: Hillary Clinton looks poised to lock it up" – Politico, 11/7/2016

"Odds of Clinton win jump on prediction markets" – Financial Times, 11/7/2016

"Polls: Hillary Clinton in position to win the election" – Business Insider, 11/7/2016

Several factors are likely to distort the picture painted by the polling data, including, but not limited to, the following:

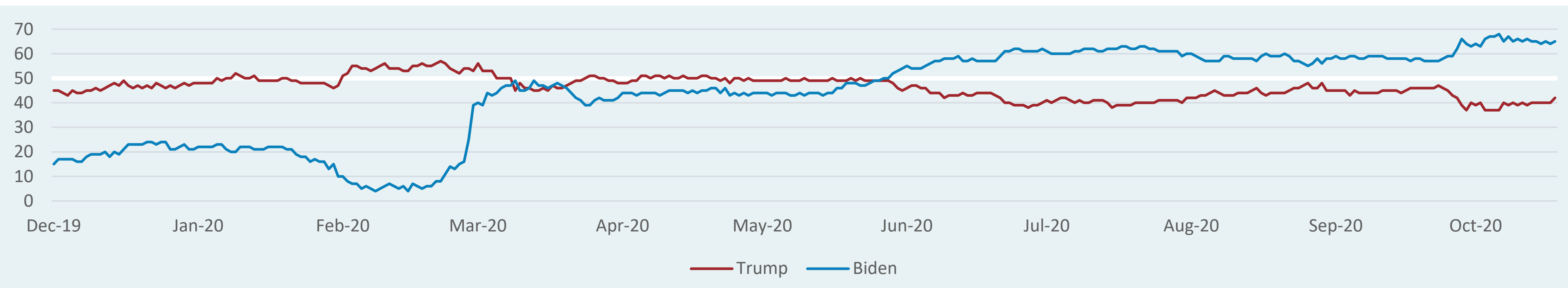
Shy Trump factor: Voters in certain parts of the country may be less willing to express that they would vote for Trump, and this dynamic may be even more prevalent than it was in 2016.

Oversampling: Pollsters do their best to build population samples representative of likely actual voter turnout, but these samples are often flawed. Back in 2016, Democrats were often over-represented in poll samples, which may have incorrectly skewed polling averages in favor of Hillary Clinton. There appears to be some evidence of this effect influencing polling averages this year as well.

Mail-in voting: The increase in reliance on mail-in ballots could delay the distribution of final election results and provide both candidates the opportunity to contest the election results in key swing states.

Late deciding: Voters may break for Trump or Biden in the final few days pre-election, but this is more likely to be a smaller factor than it was in 2016.

PREDICTIT ODDS – WHO WILL WIN THE 2020 U.S. PRESIDENTIAL ELECTION?



Source: PredictIt, as of 10/21/20

International economics summary

— Growth contracted sharply in international developed economies in Q2. Gross domestic product in the Eurozone contracted -14.7% from the prior year, and Japanese GDP sank -9.9% over the same period, despite the deployment of fiscal support to the tune of roughly 40% of Japan's GDP.

— European officials implemented stricter social distancing controls with hopes of stymying the second wave of COVID-19 sweeping across the continent. The seven-day average daily case growth of the EU27 and the United Kingdom combined rose from 4,699 to 48,807 over the third quarter.

— The IMF revised its global growth projections for 2020 and 2021 from -4.9% and 5.4% to -4.4% and 5.2%, respectively. The IMF's model assumes social distancing controls will continue to act as a drag on growth into 2021, and that local transmission of the virus will be falling everywhere by 2023.

— Inflation remained muted globally in the third quarter, supporting arguments that the pandemic's impact has been more disinflationary than inflationary over the short term. The Eurozone's consumer price index ended the quarter -0.3% below its level from September 2019, though most of the deflationary pressures were supplied by an -8.2% decline in energy prices.

— Eurozone retail sales volumes grew 3.7% from the prior year in August (exp. 2.2%), driven by a sharp surge in online purchases and clothing sales. The vigorous rebound in consumer spending has been attributed to pent-up demand and incomes, which have been largely stable due to furlough schemes. Many analysts expect a "normalization" of retail sales in the fourth quarter, under the assumption that current spending levels are unlikely to be sustainable.

Area	**GDP (Real, YoY)**	**Inflation (CPI, YoY)**	**Unemployment**
United States	(9.0%) *6/30/20*	1.3% *8/31/20*	7.9% *9/30/20*
Eurozone	(14.7%) *6/30/20*	(0.3%) *9/30/20*	8.1% *8/31/20*
Japan	(9.9%) *6/30/20*	0.2% *9/30/20*	3.0% *8/31/20*
BRICS Nations	(3.1%) *6/30/20*	3.3% *6/30/20*	5.3% *6/30/20*
Brazil	(11.4%) *6/30/20*	2.4% *8/31/20*	13.8% *7/31/20*
Russia	(8.0%) *6/30/20*	3.3% *9/30/20*	6.4% *8/31/20*
India	(23.9%) *6/30/20*	6.7% *8/31/20*	8.5% *12/31/17*
China	4.9% *9/30/20*	2.4% *8/31/20*	3.8% *6/30/20*

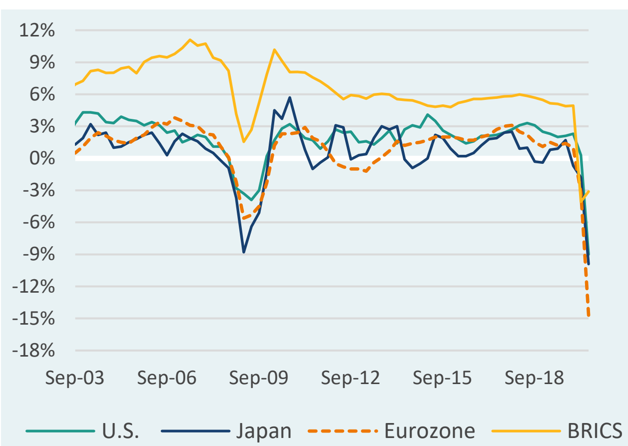
International economics

As expected, growth contracted sharply in international developed economies around the world in Q2. Eurozone gross domestic product contracted -14.7% from the prior year, and Japanese growth sank -9.9% over the same period, despite the deployment of fiscal support to the tune of roughly 40% of Japanese GDP.

Growth in most of the emerging markets complex also took a major hit. GDP contracted -11.4% in Brazil, -8.0% in Russia, and -23.9% in India which has been especially hard hit by the coronavirus. China stood out as an exception, and reportedly mustered year-over-year GDP growth of +4.9% in Q3. China's growth was supported by the People's Bank of China, which cut its 1-year medium-term lending facility rate from 3.15% to 2.95%. Many emerging economies are in a better position to provide monetary stimulus, given higher interest rates.

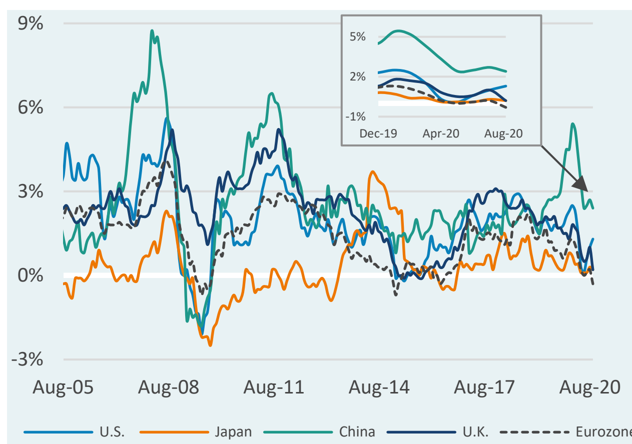
Unemployment in the Eurozone rose from 7.8% to 8.1%, just 0.2% above the quarter-end rate in the United States, as Europe contends with disinflationary pressures. Year-over-year growth of the harmonized consumer price index fell from +0.3% into negative territory at -0.3%. The Union's harmonized measure, however, does not include rents and house prices—a key distinction from the U.S. CPI basket.

REAL GDP GROWTH (YOY)



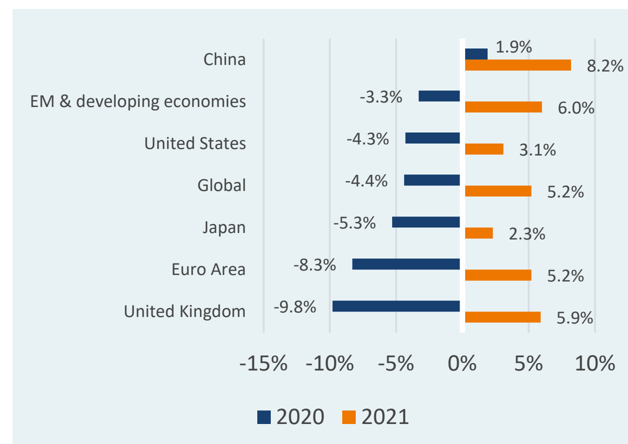
Source: Bloomberg, as of 6/30/20

INFLATION (CPI YOY)



Source: Bloomberg, as of 8/31/20

IMF GLOBAL OUTLOOK GROWTH PROJECTIONS



Source: International Monetary Fund, as of 10/13/20

Fixed income rates & credit

Interest rate environment

— Global interest rate levels remained extremely depressed relative to long-term averages in Q3, and the 10-year U.S. Treasury yield traded in a relatively narrow range between 0.50%-0.75%.

— The Federal Reserve maintained an accommodative tone, and most members of the Federal Open Market Committee remained of the view that short rates are likely to stay near-zero through 2023, and eventually move toward 2.50% over the longer-term. The Fed repeated that while it has the power to lend, it does not hold the power to spend, and additional fiscal support will likely be required from Congress.

— The U.S. Fed made an adjustment to its policy approach related to its inflation target. Instead of targeting stable prices, defined as 2% annual growth in personal consumption expenditures (PCE), the Fed will now implement an average inflation targeting approach aimed at achieving "inflation moderately above 2% for some time so that inflation averages 2% over time and longer-term inflation expectations remain well anchored at 2%."

— Officials at the Bank of England (BOE) reportedly warmed to the idea of pursuing a negative interest rate policy, and markets are now pricing in negative overnight rates by May 2021. Many analysts have stated that the BOE is likely to remain extremely supportive and may provide additional monetary accommodation in the form of quantitative easing before year-end.

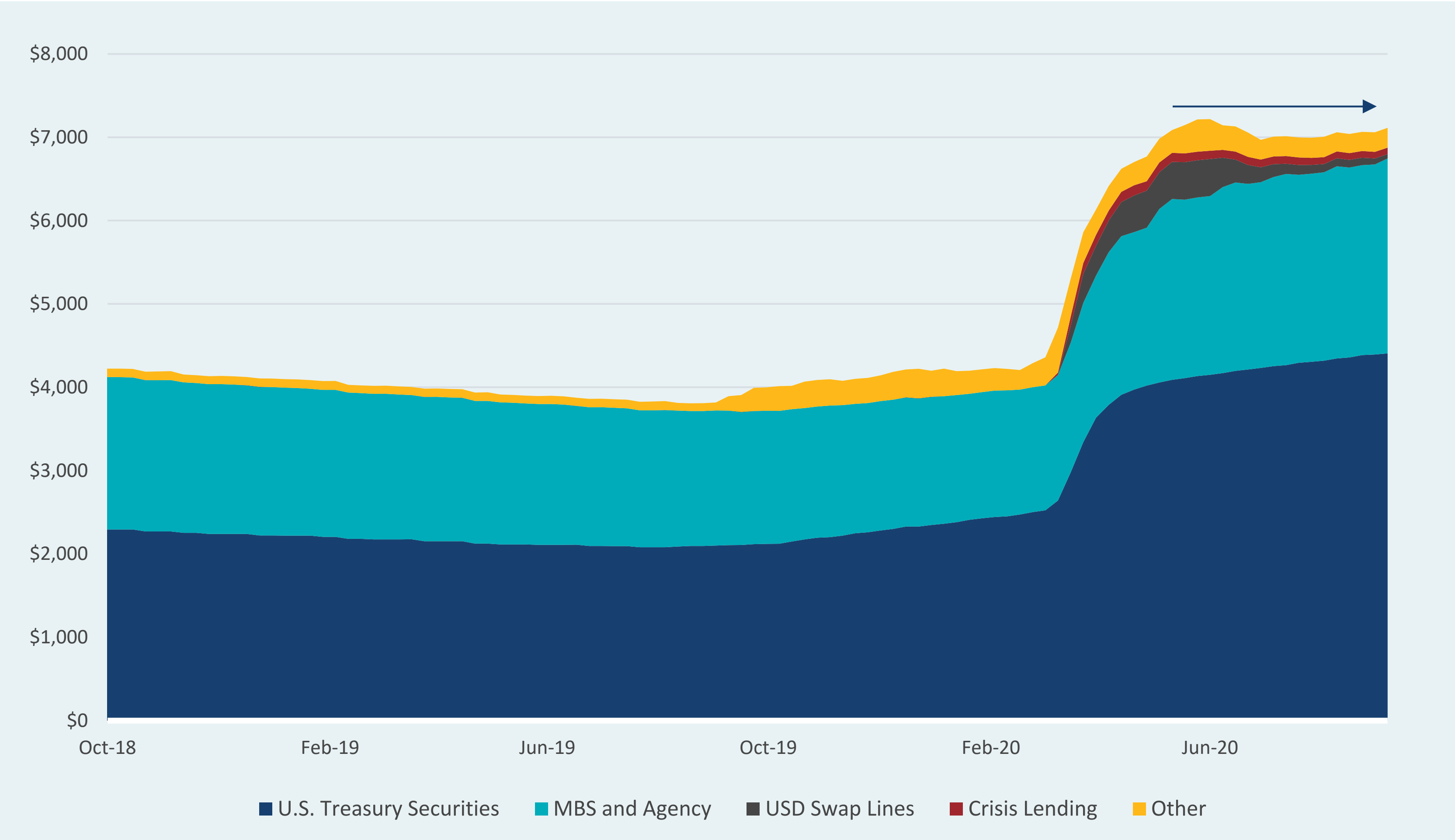
— Investors were paid for betting on longer-term reflation of growth and inflation, likely due to their expectations for further fiscal and monetary accommodation moving forward. Ten-year breakeven inflation rates recovered from 1.3% to 1.6%, and key term spreads indicated a moderate steepening in the U.S. yield curve.

Area	Short Term (3M)	10-Year
United States	0.09%	0.68%
Germany	(0.63%)	(0.52%)
France	(0.64%)	(0.24%)
Spain	(0.54%)	0.25%
Italy	(0.48%)	0.87%
Greece	(0.08%)	1.02%
U.K.	0.01%	0.23%
Japan	(0.15%)	0.01%
Australia	0.12%	0.79%
China	2.29%	3.13%
Brazil	1.93%	7.45%
Russia	4.09%	6.29%

Source: Bloomberg, as of 9/30/20

Monetary stimulus

FED BALANCE SHEET, MILLIONS



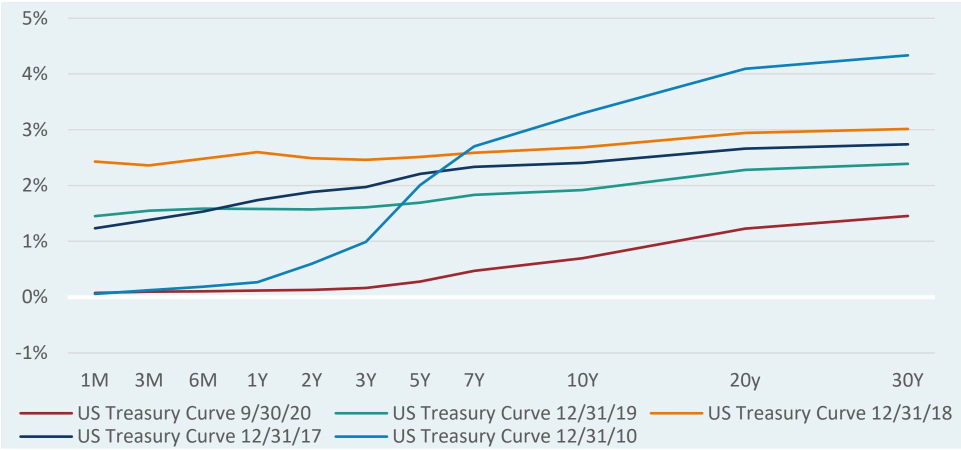
Source: FRED, Bloomberg, as of 9/16/20

Fed balance sheet levels have remained flat

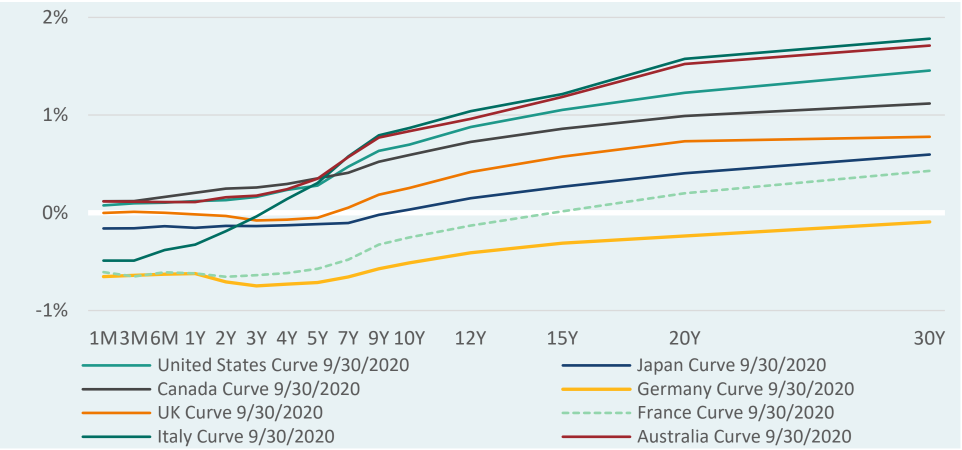
The Fed provided significant monetary accommodation in Q2. Officials have implied that further stimulus will likely need to come in the form of fiscal support

Yield environment

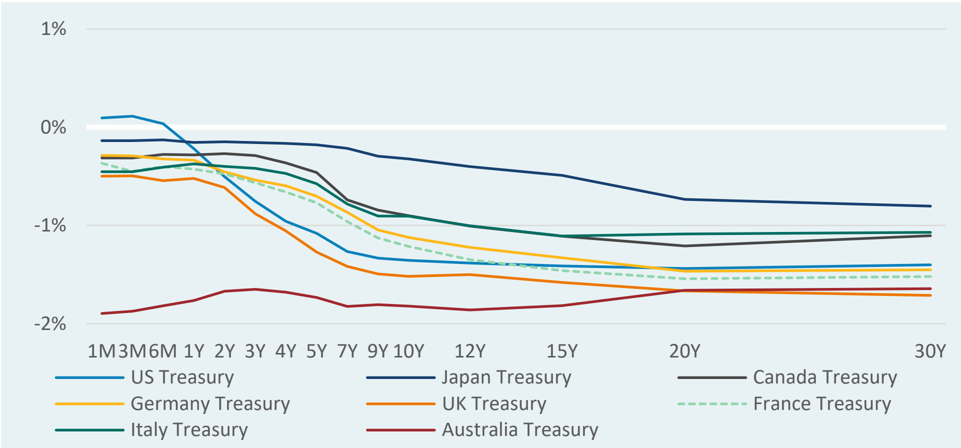
U.S. YIELD CURVE



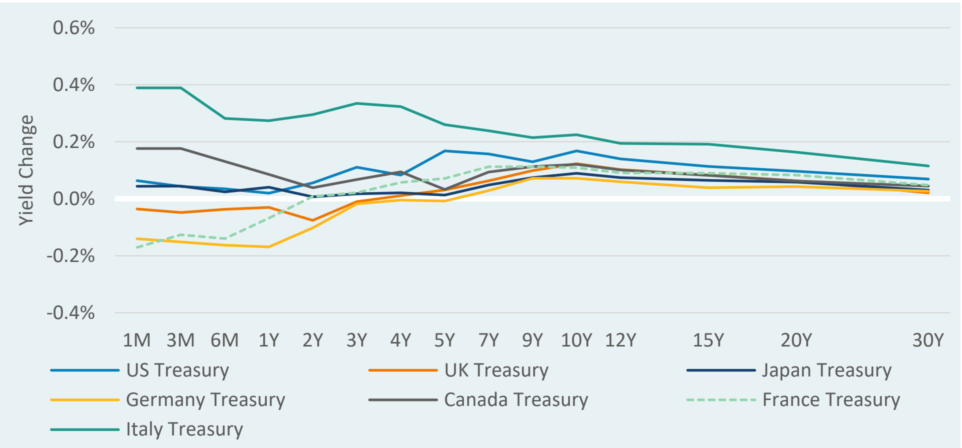
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 9/30/20

Credit environment

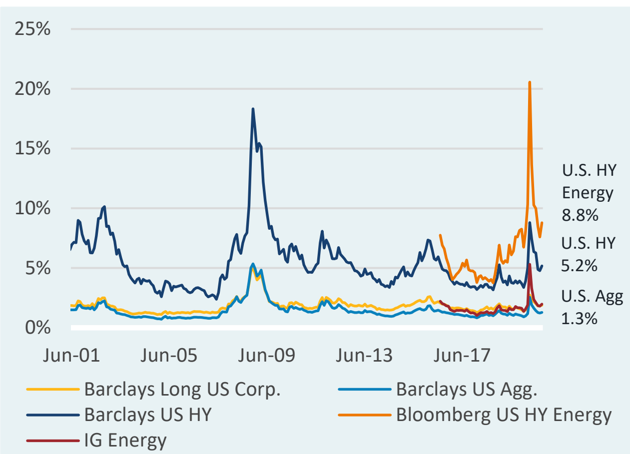
Credit markets performed positively in the third quarter as yields continued to fall from March highs. Buoyed by ongoing support from the Fed as well as increased investor demand for yield, investment grade credit returned 1.5% over the quarter while high yield and leveraged loans returned +4.6% and +4.1%, respectively. Within high yield, lower quality issues outperformed higher quality.

Investment-grade credit has now returned +6.4% year-to-date through September, while high yield performance turned positive at +0.6% and leveraged loans remained negative at -0.8% year-to-date.

Credit spreads fell across the board in Q3 but high yield led the way. Corporate investment grade spreads fell 14 bps through the quarter to 136 bps while high yield spreads fell 109 bps to 517 bps.

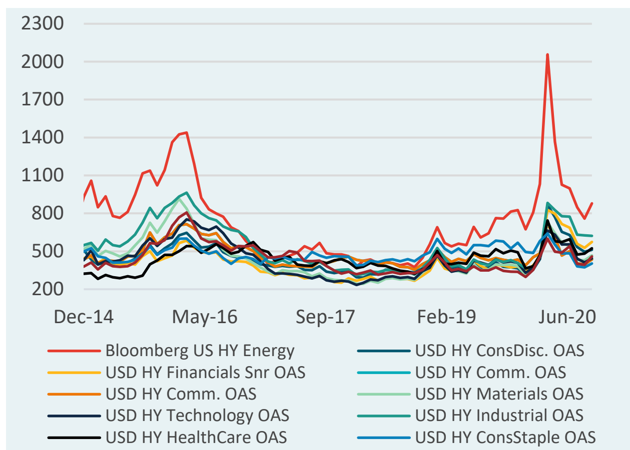
As a result of the post-March recovery, approximately two-thirds of global investment grade debt is now yielding less than 1%, and more debt is currently trading at a negative yield than at above the 2% level. While yields in the U.S. are still modestly higher than pre-pandemic levels, credit markets are priced similarly to how they were in January, despite a very different fundamental picture.

SPREADS



Source: Barclays, Bloomberg, as of 9/30/20

HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 9/30/20

	Credit Spread (OAS)	
Market	**9/30/20**	**9/30/19**
Long U.S. Corp	1.9%	1.7%
U.S. Inv Grade Corp	1.4%	1.2%
U.S. High Yield	5.2%	3.7%
U.S. Bank Loans*	5.3%	4.5%

Source: Barclays, Credit Suisse, Bloomberg, as of 9/30/20
**Discount margin (4-year life)*

Default & issuance

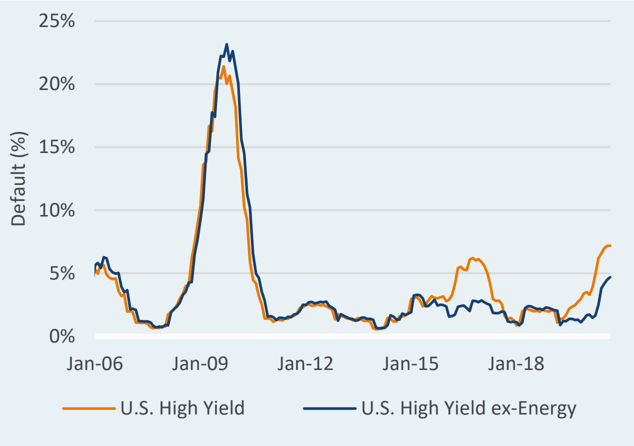
Default activity over the quarter slowed considerably from record numbers in Q2 but remained elevated relative to history. In the third quarter, 26 companies defaulted on $19.3 billion, bringing the year-to-date default total to $123.4 billion. This year-to-date figure would rank as the second highest annual default total on record.

The U.S. high yield default rate fell -0.4% in the quarter to 5.8% but remains 3.2% higher than the start of the year. Conversely, the U.S. leveraged loan default rate rose and hit a five-year-high at 4.3%, 2.6% higher year-to-date.

Certain high yield bond issuers took advantage of the low rate environment throughout Q3 and continued to come to market at a record pace. Gross issuance was $131.9 billion over the quarter, which was second only to $145.5 billion in Q2, the highest on record. Total gross issuance year-to-date has been $350.3 billion.

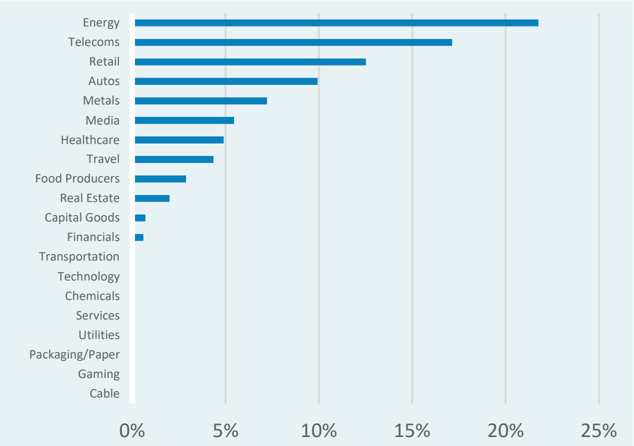
Investment grade issuance fell to nearly half the rate of the second quarter but remains elevated. New investment grade issuance totaled $371 billion. A year-to-date $1.54 trillion worth of new investment grade debt was nearly 70% higher than during the same period of 2019.

HY DEFAULT RATE (ROLLING 1-YEAR)



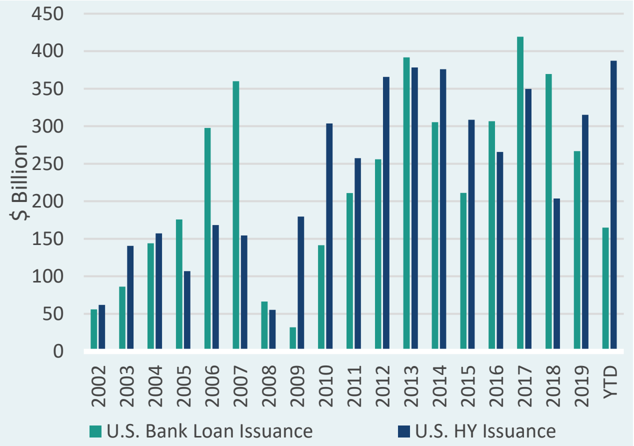
Source: BofA Merrill Lynch, as of 9/30/20

U.S. HY SECTOR DEFAULTS (LAST 12 MONTHS)



Source: BofA Merrill Lynch, as of 9/30/20 – par weighted

U.S. ISSUANCE ($ BILLIONS)



Source: BofA Merrill Lynch, as of 9/30/20

Equity

Equity environment

— U.S. equities reached a new high in September before pulling back later in the month. U.S. and emerging markets have recovered most losses year-to-date, while international developed equities remain more negative. Global equities are now positive for 2020 despite an earnings recession and considerable economic uncertainty.

— Emerging market equities outperformed during the quarter (MSCI Emerging Markets +9.6%) followed by domestic equities (S&P 500 +8.9%) and international developed (MSCI EAFE +4.8%).

— According to FactSet, S&P 500 Q3 earnings are expected to be down -20.5%. However, earnings in Q2 beat expectations by 12.5% (-31.6% YoY vs. -44.1%). Another large positive surprise in Q3 would be welcome news to investors. The Cboe VIX Index moderated in June from heightened levels and remained generally rangebound during the third quarter. The VIX ended the month of September at 26, higher than the long-term average of 19.

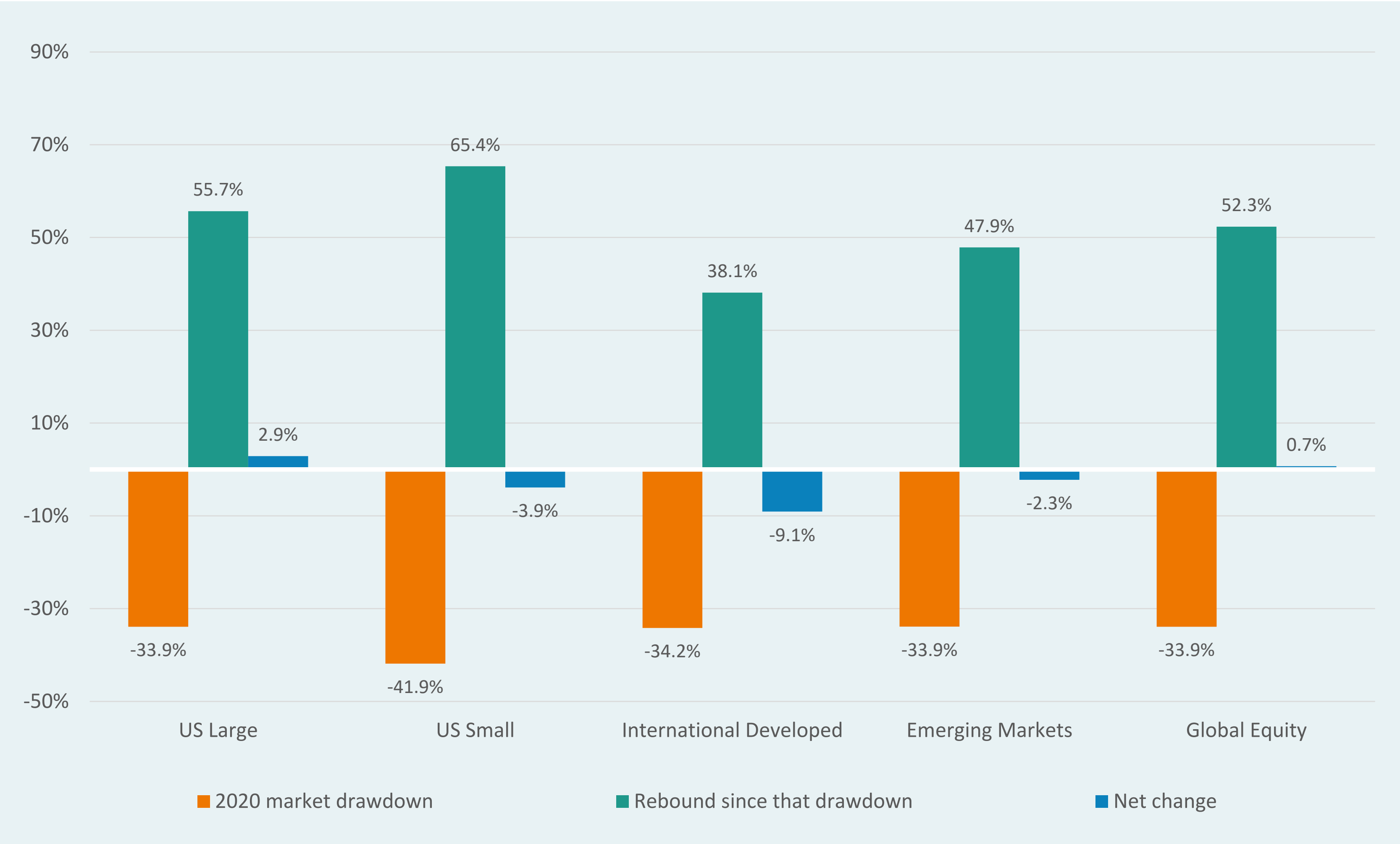
— The U.S. dollar fell -3.5% in the third quarter, continuing a downward trend since a sudden jump in March on safe-haven buying. The dollar has now completely unwound the gains experienced during the market sell-off.

— U.S. growth stocks beat value stocks in the third quarter, continuing an incredible run of market leadership (Russell 1000 Growth +13.2%, Russell 1000 Value +5.6%), while large cap stocks outperformed small cap stocks (Russell 1000 +9.5%, Russell 2000 +4.9%).

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (S&P 500)	8.9%		15.1%	
US Small Cap (Russell 2000)	4.9%		0.4%	
US Large Value (Russell 1000 Value)	5.6%		(5.0%)	
US Large Growth (Russell 1000 Growth)	13.2%		37.5%	
International Large (MSCI EAFE)	4.8%	1.3%	0.5%	(3.1%)
Eurozone (Euro Stoxx 50)	3.5%	(0.6%)	(1.7%)	(6.8%)
U.K. (FTSE 100)	0.1%	(4.1%)	(13.9%)	(17.0%)
Japan (NIKKEI 225)	6.8%	4.7%	10.9%	10.2%
Emerging Markets (MSCI Emerging Markets)	9.6%	8.5%	10.5%	12.8%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 9/30/20

Equity market peak-to-trough



Equity markets around the world have recovered most of their losses

As of 10/15/20 - "Peak-to-trough" is defined as the total loss from the highest value achieved in 2020 to the lowest value achieved following the COVID-19 market drawdown. "Net change" is the difference between the market price on October 15th and the highest value achieved in 2020. Indexes include: S&P 500, Russell 2000, MSCI EAFE, MSCI Emerging Markets, MSCI ACWI.

Domestic equity

U.S. equities delivered +8.9% in Q3, reaching a new high in September before pulling back later in the month. The S&P 500 is up +5.6% year-to-date, despite an earnings recession and considerable economic uncertainty.

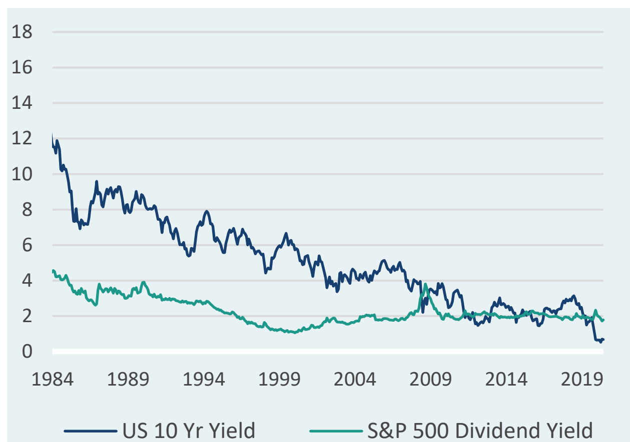
Consumer Discretionary (+15.1%) and Materials (+13.3%) sectors led in Q3, with Energy (-19.7%) delivering further underperformance. Information Technology stocks have shown impressive performance year-to-date (+27.5%) and have captured headlines as some company valuations have reached lofty levels. Large technology names have seen greater volatility recently, and exhibited a quick pullback during the first week of September. Growth stocks continue to be in vogue in the current low-growth environment.

Many investors are justifiably questioning the rationale for such strong risk asset performance, at a time when so much uncertainty exists around public health and the economy, and at a time when some business models may no longer be viable due to COVID-19.

S&P 500

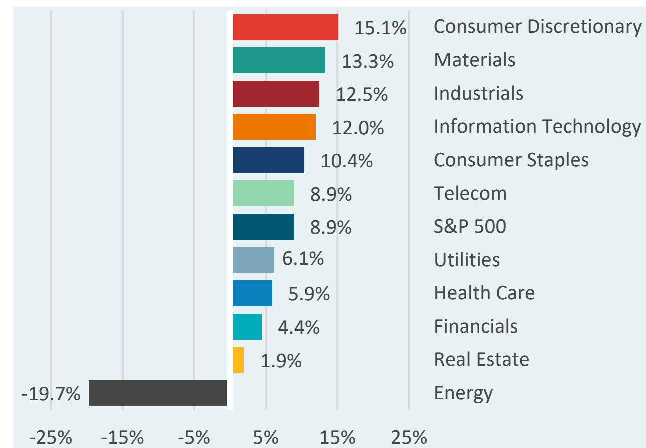
Source: Standard & Poor's, as of 9/30/20

DIVIDEND YIELD VS BOND YIELD



Source: Standard & Poor's, as of 9/30/20

Q3 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 9/30/20

Domestic equity size & style

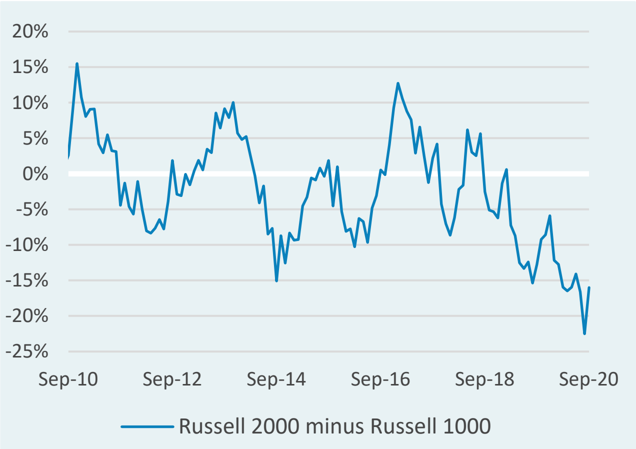
U.S. growth stocks beat value stocks during Q3, continuing an incredible run of market leadership (Russell 1000 Growth +13.2%, Russell 1000 Value +5.6%), while large cap stocks outperformed small cap stocks (Russell 1000 +9.5%, Russell 2000 +4.9%).

It seems that 2020 has been the perfect storm for value stocks. Commodities sectors were experiencing oversupply leading up to the onset of COVID-19, and the virus greatly accelerated these problems, resulting in a historic crash to prices (the Energy sector contains many value stocks). The Energy sector has delivered -45.2% over the past year. At the same time, the world has been rapidly changing in terms of technological progress, and COVID-19 appears to have accelerated these trends, contributing to extreme outperformance of the growth-tilted Information Technology sector at +47.2% over the past year.

We recognize that recent value underperformance is anomalous, but we also recognize that much of this price action has been due to global trends that may not necessarily reverse over the short-term. It is very difficult to successfully make short-term bets on style factors, as factors can be incredibly noisy and vulnerable to sector randomness. Value is historically cheap, but a catalyst for a value turnaround is not yet evident. We continue to believe that a buy-and-hold approach to style investing is the best course of action, most of the time, but we are closely watching this space.

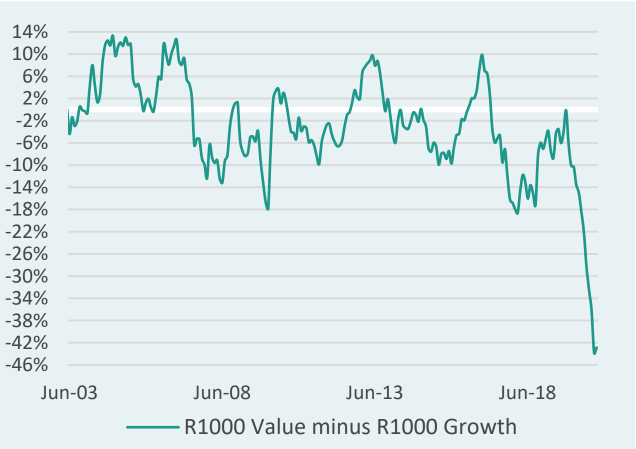
Sector performance has fueled dramatic negative performance of the value premium

SMALL CAP VS LARGE CAP (YOY)



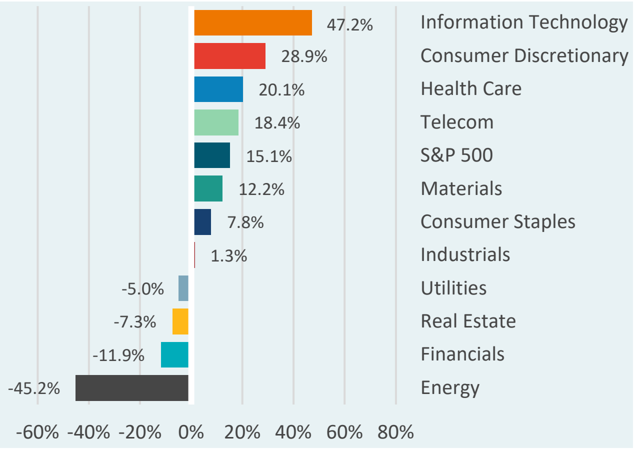
Source: FTSE, as of 9/30/20

VALUE VS GROWTH (YOY)



Source: FTSE, as of 9/30/20

S&P 500 SECTOR PERFORMANCE (1-YEAR)



Source: Standard & Poor's, as of 9/30/20

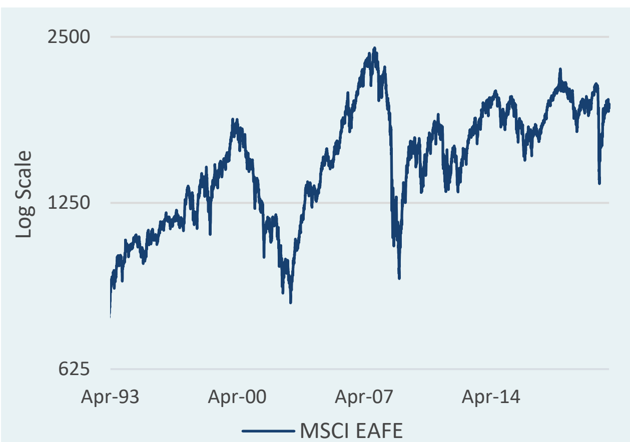
International developed equity

International equities continued to recover through Q3, though the MSCI EAFE Index (+4.8%) materially lagged the MSCI Emerging Markets Index (+9.6%) and the S&P 500 Index (+8.9%). Dollar weakness coinciding with the risk recovery through the summer was a major theme and dampened the underperformance of international developed equities relative to U.S. equities in U.S. dollar terms. The three largest currency exposures embedded in the MSCI EAFE Index—the euro (32%), the yen (26%), and the pound sterling (13%)—appreciated +4.4%, +2.2%, and +4.6% relative to the greenback over the course of the quarter.

In the second quarter, MSCI EAFE Index revenues dropped nearly -20%, and earnings dropped nearly -60%, pushing certain valuation metrics including price/earnings ratios to historic highs. Moving into Q3 earnings season, analysts are anticipating a historic turnaround in corporate profits, which could help bring valuations back to more normal levels.

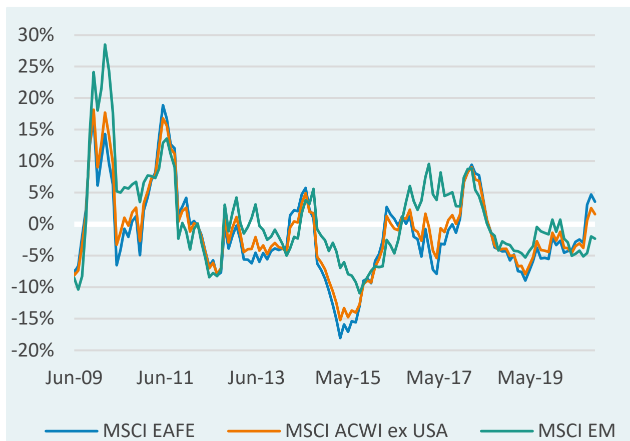
The MSCI EAFE Growth Index returned +8.4% over the third quarter, outpacing the MSCI EAFE Value Index (+1.2%) in U.S. dollar terms, extending its outperformance over the year-to-date to a staggering +23.6%.

INTERNATIONAL DEVELOPED EQUITIES



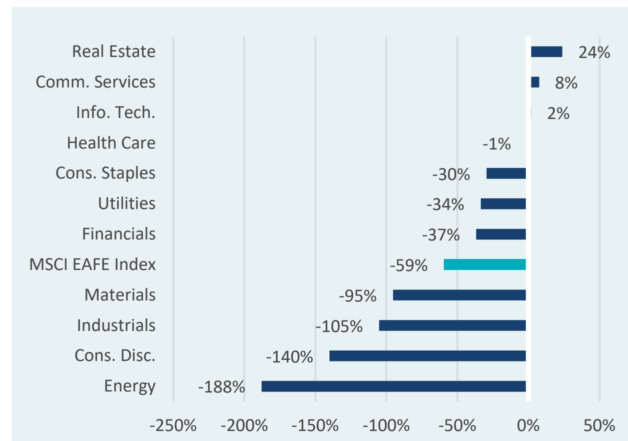
Source: MSCI, as of 9/30/20

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 9/30/20

Q2 2020 EARNINGS GROWTH – MSCI EAFE INDEX



Source: MSCI, Bloomberg, as of 9/30/20

Emerging market equity

Emerging market equities (MSCI EM +9.6%) outperformed U.S. (S&P 500 +8.9%) and international developed equities (MSCI EAFE +4.8%) over the quarter. Looking across the emerging market complex, Latin American equities underperformed (MSCI EM Latin American -1.3%) which was a continuation of a longer-term trend. Latin American stocks have drastically underperformed over the previous 10-year period (MSCI EM Latin America -5.7%, MSCI EM +2.5%).

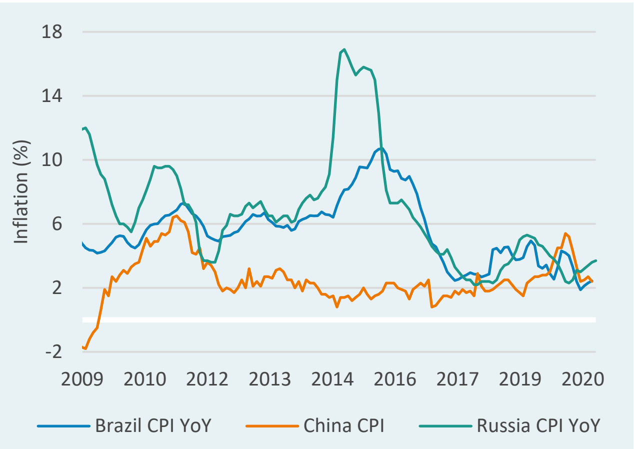
Inflation remained subdued relative to longer-term averages, due in large part to energy prices remaining under pressure. The Emerging Markets Citi Inflation Surprise Index rose from -28.8 to -6.6 over the quarter, implying that the magnitude of inflation data misses lessened between June and September.

Emerging market currencies broadly appreciated relative to the U.S. dollar, and Asian currencies outperformed. The offshore Chinese renminbi rallied 4.2% versus the greenback to ¥6.78, its strongest level since mid-2019. Part of the rally in the yuan has been attributed to FTSE Russell's recent decision to add Chinese government bonds to its World Government Bond Index. This change would take effect in 2021, and would likely result in increased foreign capital inflows.

EMERGING MARKET EQUITY

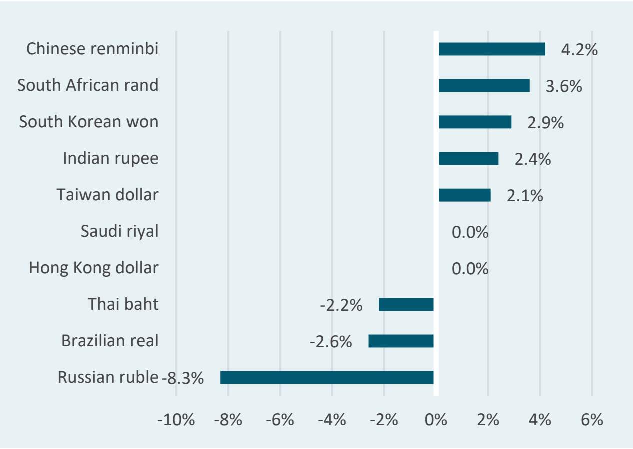
Source: MSCI, as of 9/30/20

INFLATION (YOY)



Source: Bloomberg, as of 9/30/20

Q3 CURRENCY PERFORMANCE – MSCI EM INDEX



Source: Bloomberg, as of 9/30/20

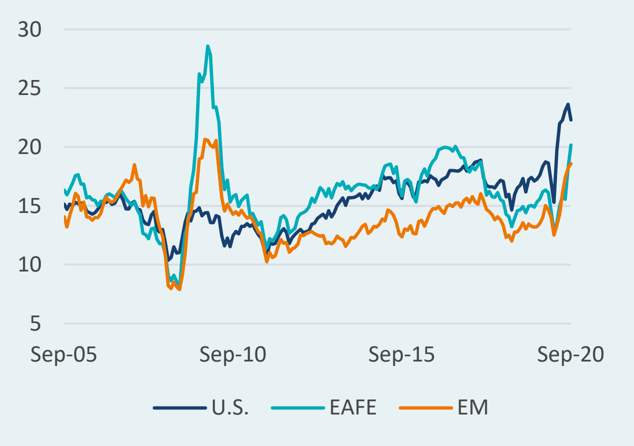
Equity valuations

U.S. equity valuation levels moderated in September after continuing to rise through July and August. Prices ended the quarter little changed relative to 12-month earnings forecasts (22.3 Price/Earnings). The moderation of U.S. equity valuations was driven in part by a tech-driven sell-off across U.S. large-caps, and in part by improvement in the earnings growth and outlook.

The blended net profit margin for the S&P 500 Index in Q3, which combines actual reported results and estimated results for companies which have yet to report, is 9.7%. If the blended net profit margin were to materialize, it would mark the first quarterly improvement in the profitability metric since the second quarter of 2019, and could provide further fundamental backing for current price levels. Analysts are expecting net profit margins to continue to improve. Estimated profit margins for Q4 2020, Q1 2021, and Q2 2021 ended the quarter at 9.8%, 10.4%, and 11.0%, respectively.

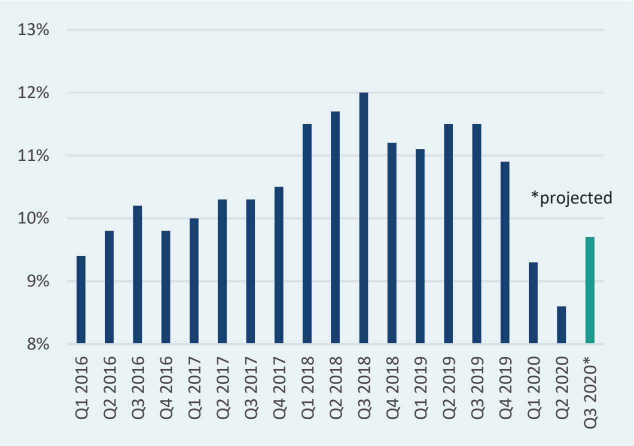
Equity dividend yields remain attractive relative to nominal government bond yields, especially in Europe, and could further entice investors to reach for yield through risk assets.

FORWARD P/E RATIOS



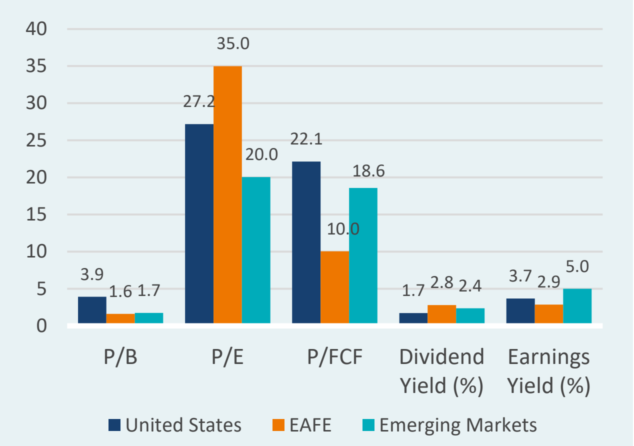
Source: MSCI, 12m forward P/E, as of 9/30/20

S&P 500 NET PROFIT MARGINS



Source: FactSet, as of 9/30/20

VALUATION METRICS (3-MONTH AVERAGE)



Source: Bloomberg, MSCI as of 9/30/20 - trailing P/E

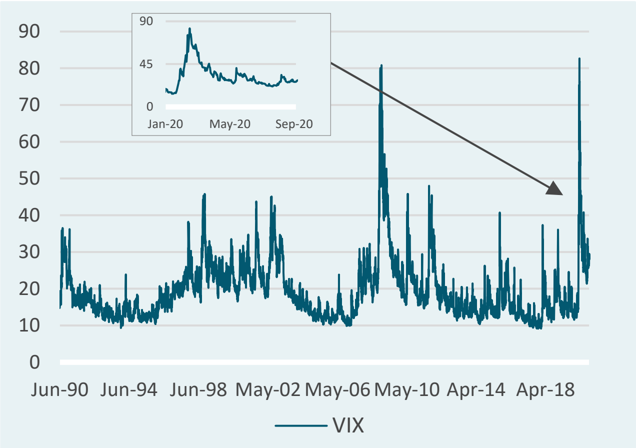
Equity volatility

The Cboe VIX Index moderated in June from heightened levels, and remained generally rangebound during the third quarter. The VIX ended September at 26, but remains elevated relative to the long-term average of 19.

U.S. equities have historically exhibited the lowest risk among developed and emerging markets. In recent years, this relationship has flipped, with U.S. stocks showing higher volatility than developed market stocks, and nearly on par with emerging market equities.

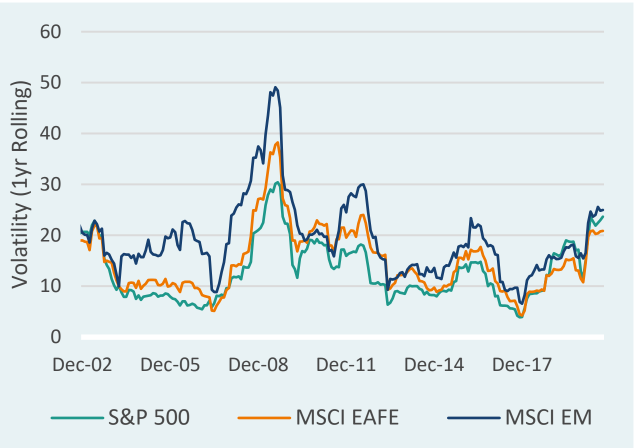
Expectations for short-term equity volatility faded through the summer. The VIX term structure continued to indicate an expectation for heightened volatility around the Presidential election in the beginning of November. Toward the end of the quarter, concerns over the impact of mail-in voting on the timeliness of electoral results reporting led some market participants to position around the prospect of a contested election and its consequences for equity markets. Polling data indicates a widening lead for Biden. The prospect of a "Blue Wave" appears to have emboldened some traders to sell longer-dated VIX futures contracts.

U.S. IMPLIED VOLATILITY (VIX)



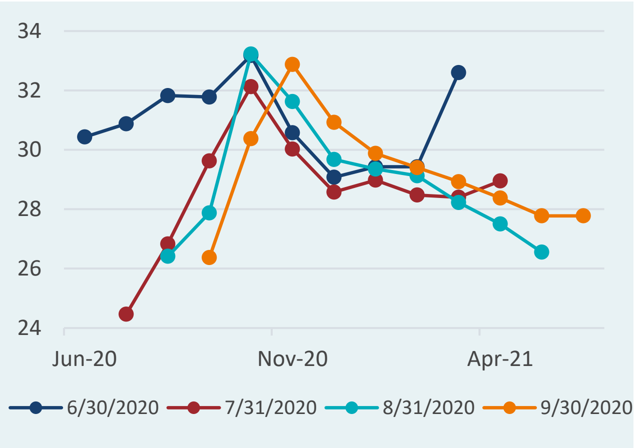
Source: Cboe, as of 9/30/20

REALIZED VOLATILITY



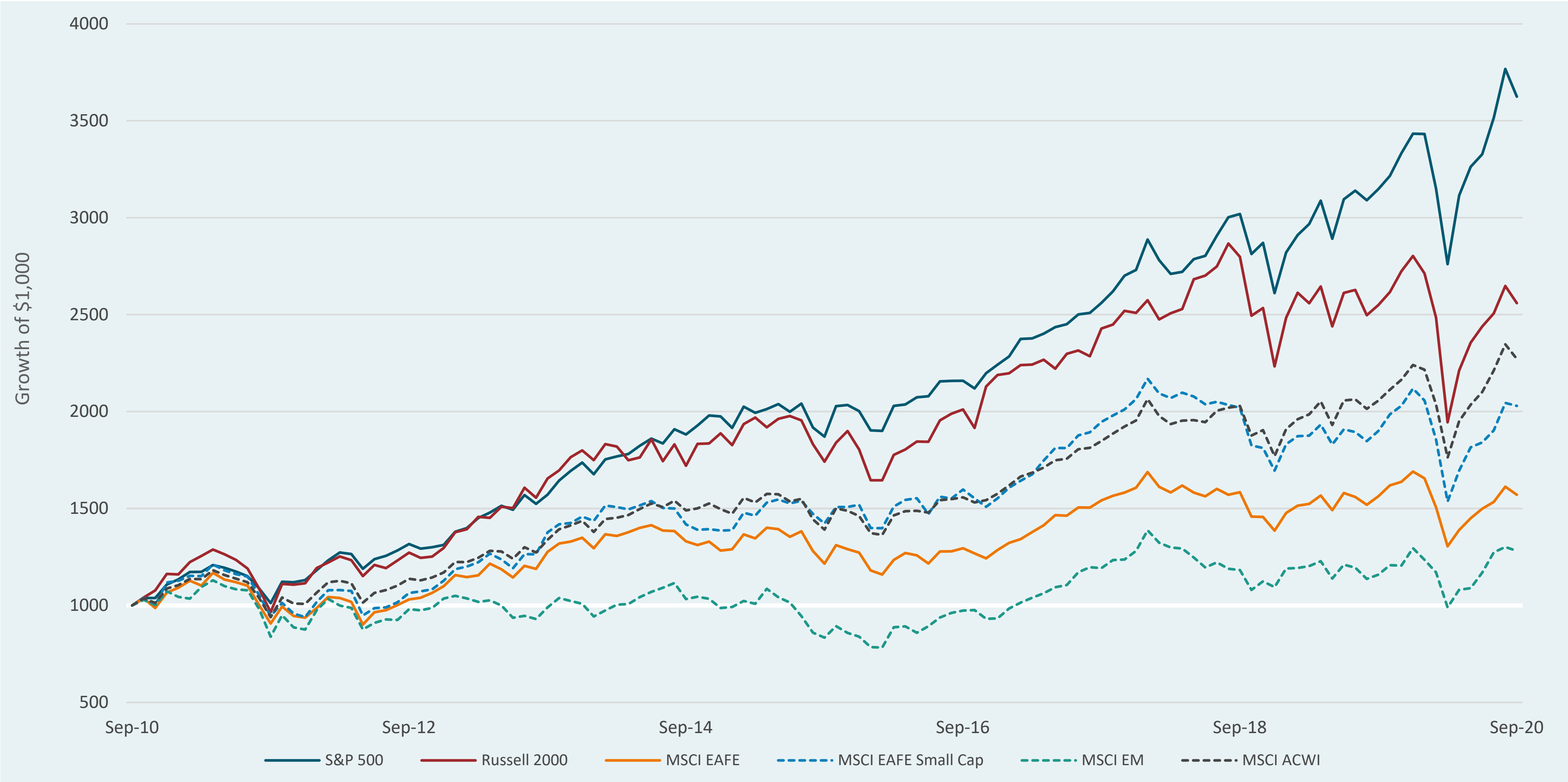
Source: Standard & Poor's, MSCI, as of 9/30/20

HISTORICAL VIX TERM STRUCTURES



Source: Bloomberg, as of 9/30/20

Long-term equity performance



Source: Morningstar, as of 9/30/20

Other assets

Currency

The U.S. dollar fell -3.5% in the third quarter, continuing a downward trend since a sudden jump in March on safe-haven buying. Though the dollar did show some signs of stabilization in September as equities took a step back, the Bloomberg Dollar Spot Index has now completely unwound the gains experienced during the market sell-off.

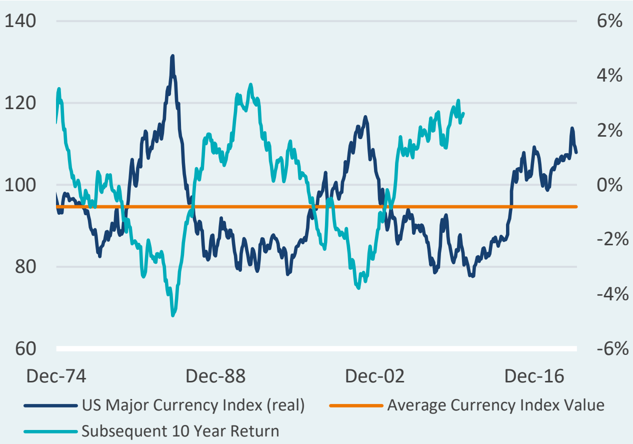
Interest rate differentials between U.S. Treasury bonds and international developed sovereign bonds have begun to separate once again. U.S. Treasury yields traded in a relatively narrow range while European yields drifted lower, perhaps as a result of speculation on further quantitative easing from the European Central Bank. A continuation of this trend could be supportive of the dollar bull case, looking ahead.

Despite the significant rally of the euro (+4.4%) relative to the greenback in Q3, the common currency remains cheap according to the OECD's purchasing power parity data. At quarter-end, the euro was -20.8% cheap relative to the U.S. dollar, which was significant but still at its least undervalued level since September 2018.

BLOOMBERG DOLLAR SPOT INDEX

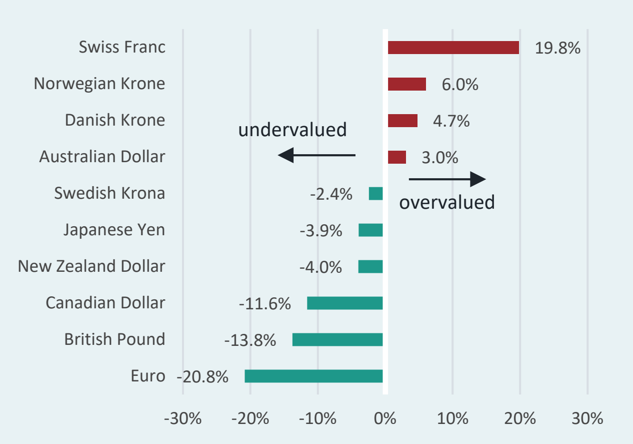
Source: Bloomberg, as of 9/30/20

USD CURRENCY LEVEL & SUBSEQUENT RETURN



Source: Federal Reserve, as of 9/30/20

G10 FX VALUATIONS – OECD PPP (VS USD)



Source: OECD, Bloomberg, as of 9/30/20

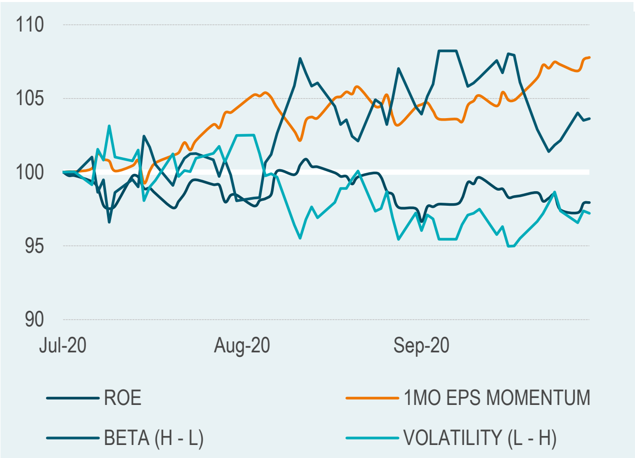
Equity factors: A closer look

Investors rewarded stocks with improving earnings prospects during the third quarter as one-month earnings momentum (long/short, sector neutral, S&P 500) was the top performing factor for the period. Stocks with higher beta and higher historic volatility also continued to rally during most of the quarter. In contrast, higher quality stocks sold off during the period.

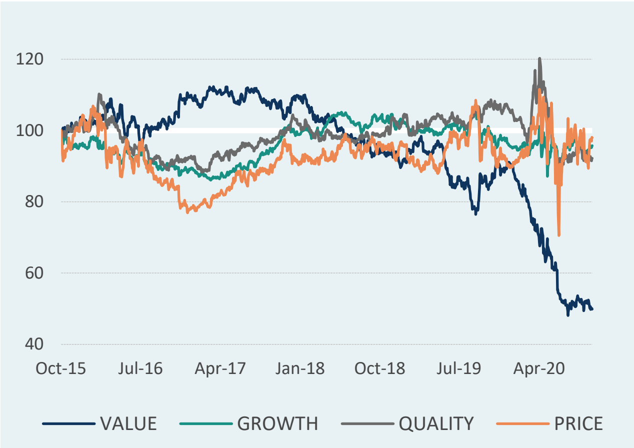
Over the trailing 5-year period, the respective growth, quality and price momentum factors finished with modestly negative results. These factors also showed some recent sensitivity to the dramatic market movements caused by the pandemic. In contrast, the value factor remains mired in a long-term drawdown.

The pandemic has caused significant dispersion as investors rushed into stocks perceived to benefit from the crisis. In contrast, the stocks thought to gain most from a potential recovery back to normalcy continue to lag both the beneficiaries and the broad market. The structural risk to the recovery theme is a potential permanent change in behavior as certain activities, such as travel and tourism, remain depressed relative to pre-COVID norms.

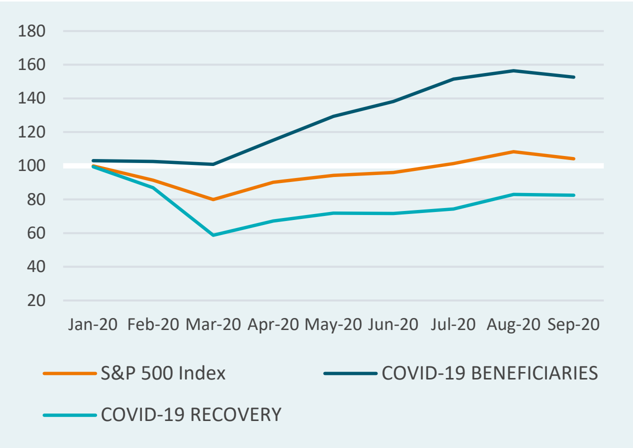
2020 Q3 FACTOR PERFORMANCE



2015Q4 – 2020Q3 FACTOR PERFORMANCE



COVID-19 BASKETS



Source: JP Morgan US Equity Strategy

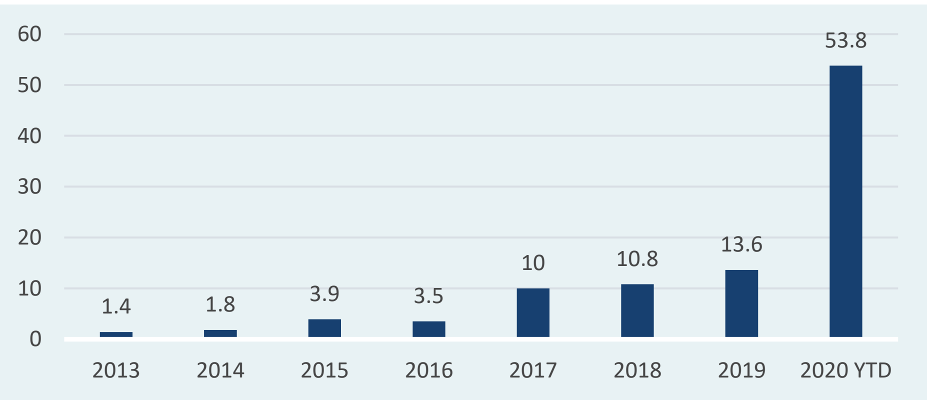
SPACs at a glance

Special Purpose Acquisition Companies, commonly abbreviated as SPACs, have proliferated substantially in 2020, especially in the third quarter. This has been driven by recent market volatility, increasing initial public offering (IPO) risks and inefficiencies, coupled with record retail investor trading volume. The reputation of SPACs is improving as notable investors and operators continue to enter the space.

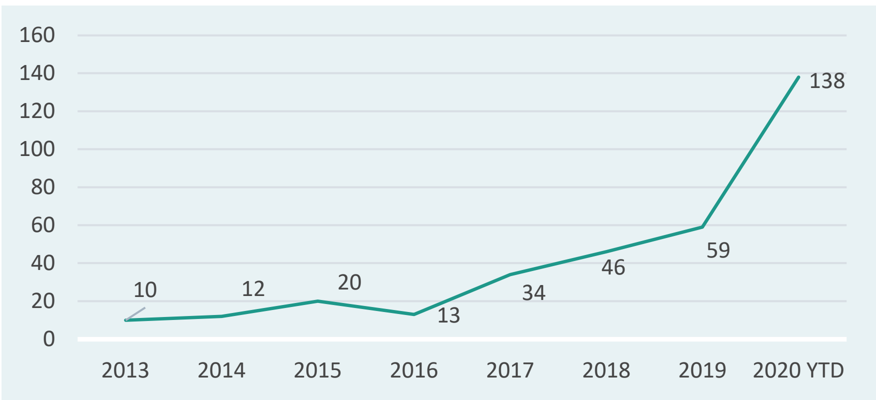
— A SPAC is a "blank check" shell company formed specifically to acquire a late-stage private company target. From the SPAC sponsor's point of view, it is analogous to creating a Private Equity fund that renders only one investment, which becomes publicly traded upon the merger process known as "de-SPAC".

— SPACs allow private companies to undergo public listing quicker, bypassing a traditional IPO process.

TOTAL SPACS CAPITAL RAISED ($BN)



NUMBER OF SPAC IPOS



Source: SPAC Research, as of 10/9/20

Implications for institutional investors

— SPACs have experienced significant volatility around a historic negative return level.

SPAC RETURNS % POST-MERGER COMPLETION

Sample of SPAC transactions completed since January 2018

— We believe the rise of SPACs will continue to disrupt different asset classes in various ways.

- In Venture Capital and Leveraged Buyouts, SPAC serves as a new potential exit channel for companies that pre-empts a traditional IPO, generating earlier liquidity for GPs and LPs.
- SPACs have become a deal source for mutual funds, private markets and hedge fund managers to invest via a PIPE.
- In SPACs, milestone-based compensation for the management team are more acceptable and normalized as compared to a traditional IPO. This could potentially lead to better alignment of company and GP incentives and interests.

SPACs have yet to be proven as an attractive asset class for prudent investors

We are currently assessing the longer-term impact of SPACs on the private & public markets

Source: Goldman Sachs Global Investment Research, Dealogic, UBS, as of 7/30/20.

Appendix

Periodic table of returns

BEST ↑ / ↓ WORST

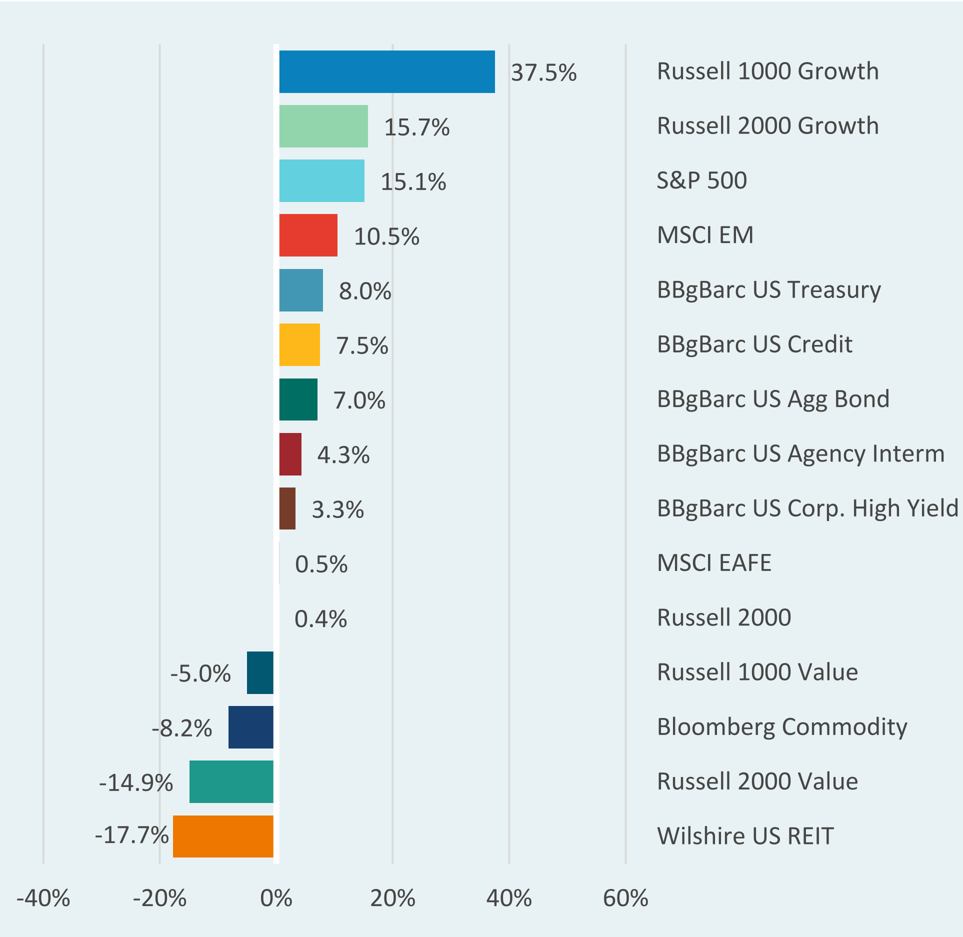
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	YTD	5-Year	10-Year
Large Cap Growth	38.7	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	24.3	20.1	17.3
US Bonds	27.0	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	6.8	14.1	13.8
Large Cap Equity	20.3	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	6.4	11.4	12.3
Small Cap Growth	19.3	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	3.9	9.0	9.9
60/40 Global Portfolio	16.2	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	3.6	8.0	9.9
Hedge Funds of Funds	8.7	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.4	2.5	8.0	9.3
Cash	15.6	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.0	0.4	7.7	7.1
Real Estate	4.9	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	-0.3	6.1	6.2
Emerging Markets Equity	1.2	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	-1.2	5.3	4.6
International Equity	-2.5	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	-7.1	4.2	3.6
Small Cap Equity	-5.1	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	-8.7	4.1	2.9
Large Cap Value	-6.5	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	-11.6	3.1	2.5
Commodities	-25.3	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	-12.1	1.1	0.6
Small Cap Value	-27.0	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-21.5	-3.1	-6.0

- Large Cap Equity
- Large Cap Value
- Large Cap Growth
- Small Cap Equity
- Small Cap Value
- Small Cap Growth
- International Equity
- Emerging Markets Equity
- US Bonds
- Cash
- Commodities
- Real Estate
- Hedge Funds of Funds
- 60% MSCI ACWI/40% BBgBarc Global Bond

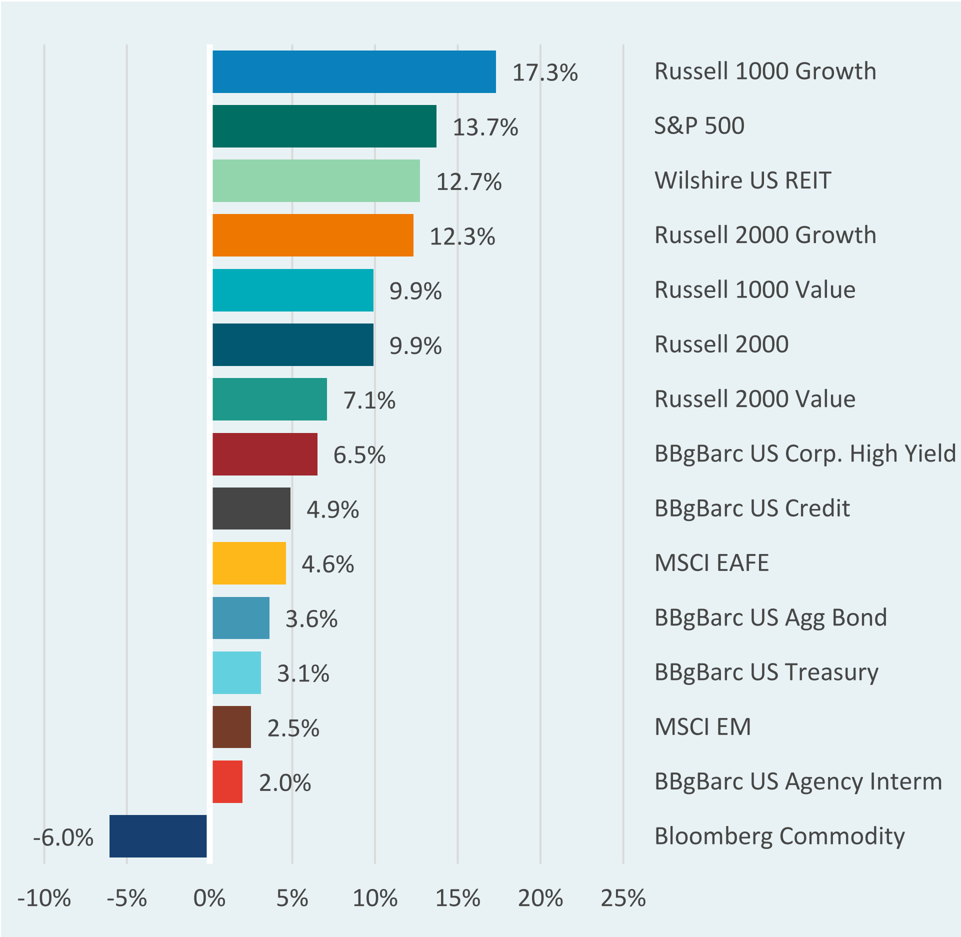
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 6/30/20.

Major asset class returns

ONE YEAR ENDING SEPTEMBER



TEN YEARS ENDING SEPTEMBER



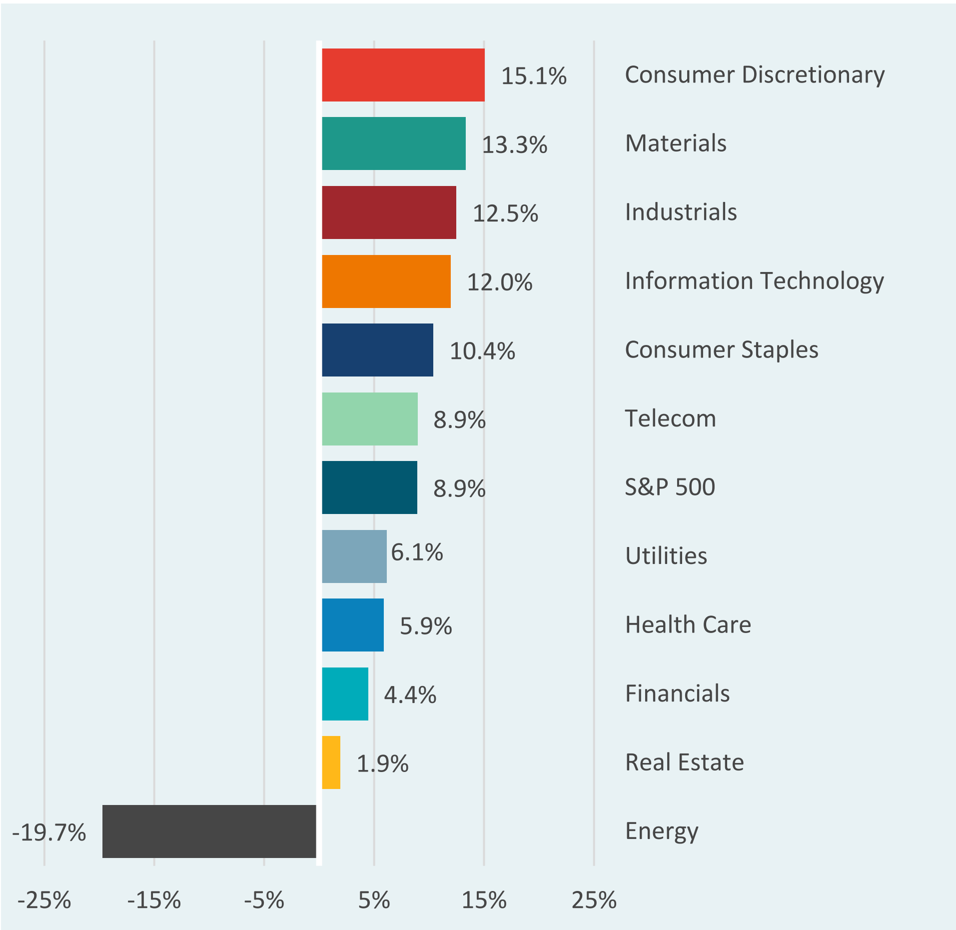
**Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.*

Source: Morningstar, as of 9/30/20

Source: Morningstar, as of 9/30/20

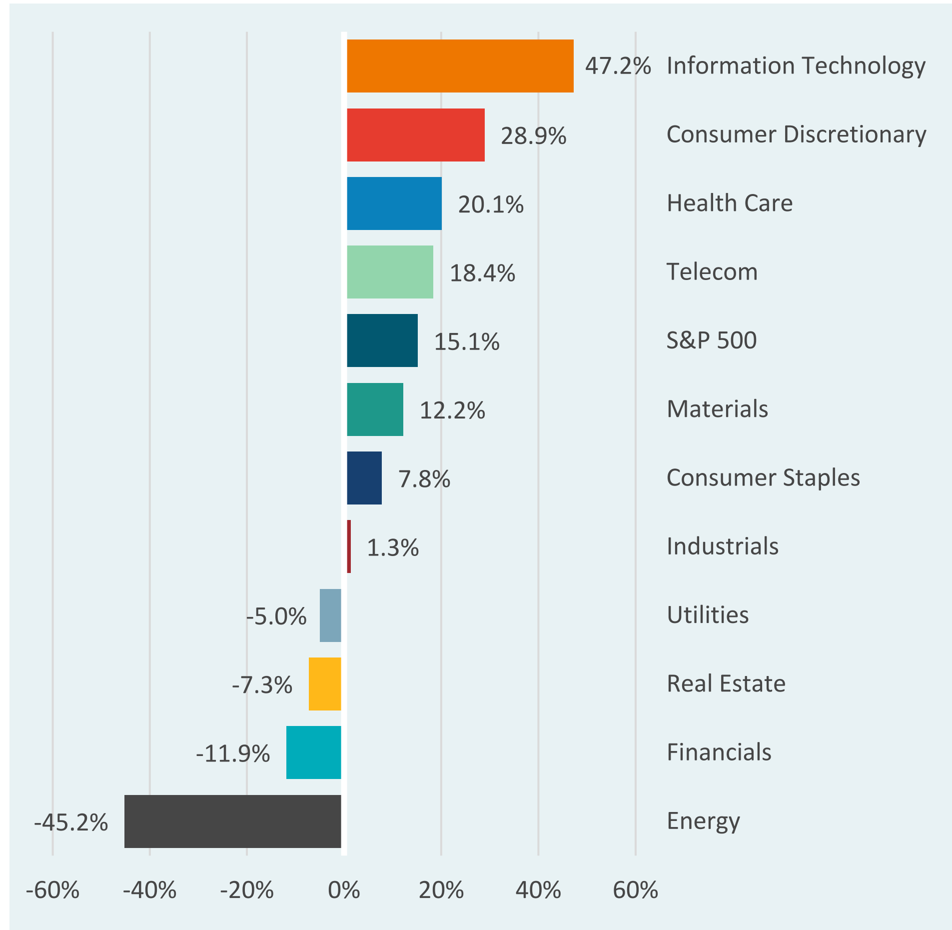
S&P 500 sector returns

Q3 2020



Source: Morningstar, as of 9/30/20

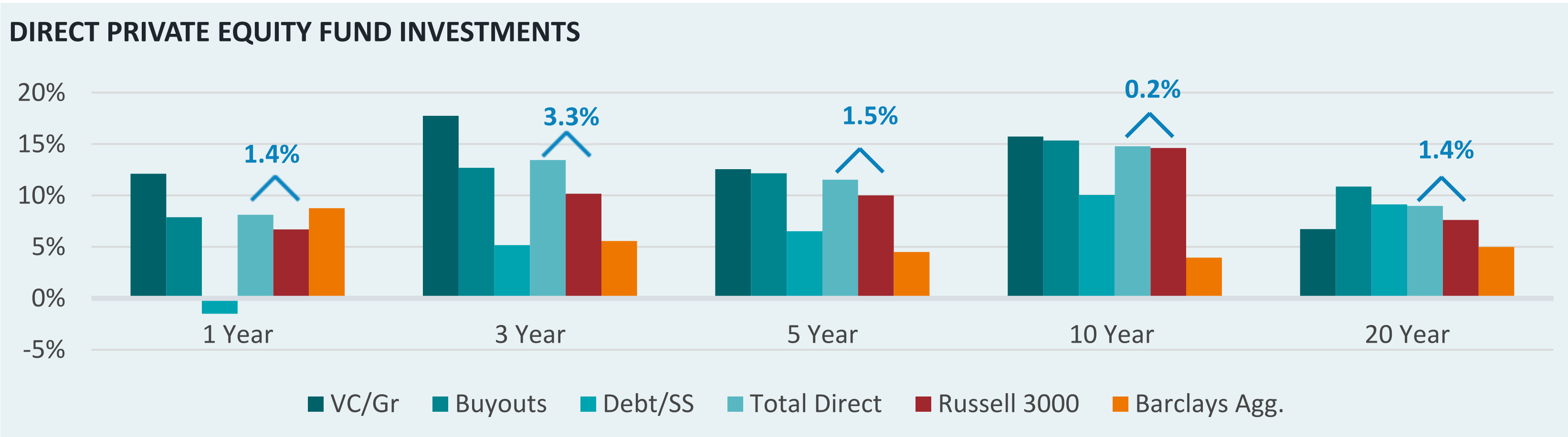
ONE YEAR ENDING SEPTEMBER



Source: Morningstar, as of 9/30/20

Private equity vs. public performance

As of 6/30/2020

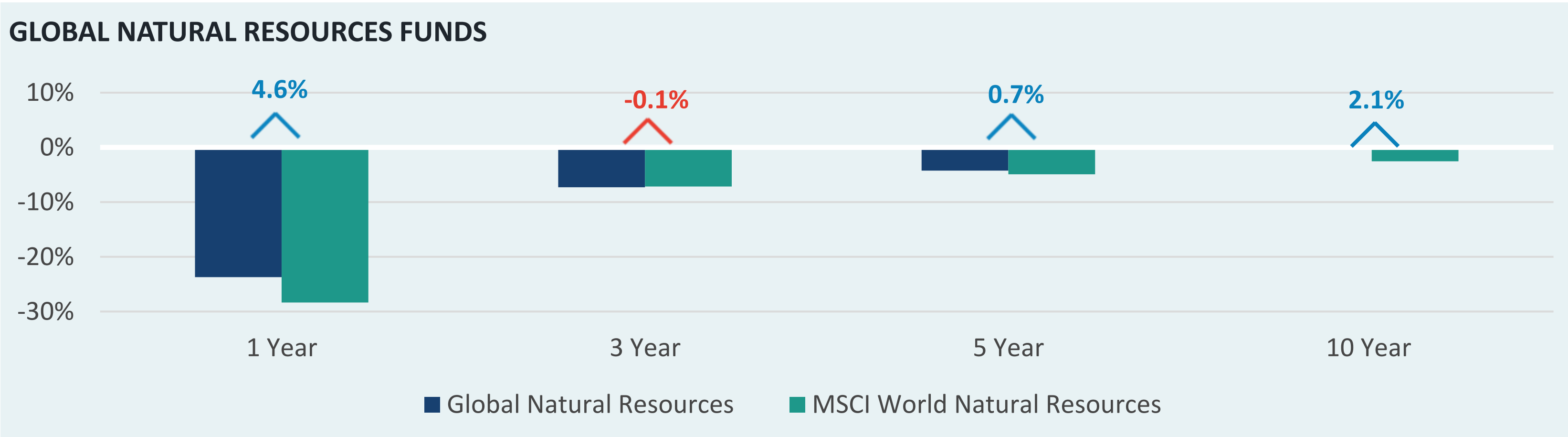


Direct P.E Fund Investments outperformed comparable public equites across all time periods.

Sources: Thomson Reuters Cambridge Universe's PME Module: U.S. Private Equity Funds sub asset classes as of June 30, 2020. Public Market Equivalent returns resulted from "Total Direct's "identical cash flows invested into and distributed from respective traditional asset comparable.

Private natural resources vs. liquid natural resources performance

As of 6/30/2020



N.R. funds underperformed the MSCI World Natural Resources benchmark across all time periods, except on a 3 year basis

Sources: Thomson Reuters C|A PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) universes as of June 30, 2020. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	(3.8)	8.9	5.6	15.1	12.3	14.1	13.7
S&P 500 Equal Weighted	(2.5)	6.7	(4.7)	2.5	6.5	10.3	12.0
DJ Industrial Average	(2.2)	8.2	(0.9)	5.7	10.0	14.0	12.7
Russell Top 200	(4.2)	10.2	9.6	20.3	14.3	15.6	14.5
Russell 1000	(3.7)	9.5	6.4	16.0	12.4	14.1	13.8
Russell 2000	(3.3)	4.9	(8.7)	0.4	1.8	8.0	9.9
Russell 3000	(3.6)	9.2	5.4	15.0	11.6	13.7	13.5
Russell Mid Cap	(1.9)	7.5	(2.3)	4.6	7.1	10.1	11.8
Style Index							
Russell 1000 Growth	(4.7)	13.2	24.3	37.5	21.7	20.1	17.3
Russell 1000 Value	(2.5)	5.6	(11.6)	(5.0)	2.6	7.7	9.9
Russell 2000 Growth	(2.1)	7.2	3.9	15.7	8.2	11.4	12.3
Russell 2000 Value	(4.7)	2.6	(21.5)	(14.9)	(5.1)	4.1	7.1

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	(0.4)	3.0	9.2	10.1	5.8	4.6	3.6
BBgBarc US Treasury Bills	0.0	0.0	0.7	1.2	1.7	1.2	0.7
BBgBarc US Agg Bond	(0.1)	0.6	6.8	7.0	5.2	4.2	3.6
Duration							
BBgBarc US Treasury 1-3 Yr	0.0	0.1	3.1	3.6	2.7	1.8	1.3
BBgBarc US Treasury Long	0.4	0.1	21.3	16.3	11.9	8.2	7.2
BBgBarc US Treasury	0.1	0.2	8.9	8.0	5.5	3.7	3.1
Issuer							
BBgBarc US MBS	(0.1)	0.1	3.6	4.4	3.7	3.0	3.0
BBgBarc US Corp. High Yield	(1.0)	4.6	0.6	3.3	4.2	6.8	6.5
BBgBarc US Agency Interm	0.1	0.3	4.0	4.3	3.3	2.4	2.0
BBgBarc US Credit	(0.3)	1.5	6.4	7.5	6.2	5.7	4.9

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	(3.2)	8.1	1.4	10.4	7.1	10.3	8.5
MSCI ACWI ex US	(2.5)	6.3	(5.4)	3.0	1.2	6.2	4.0
MSCI EAFE	(2.6)	4.8	(7.1)	0.5	0.6	5.3	4.6
MSCI EM	(1.6)	9.6	(1.2)	10.5	2.4	9.0	2.5
MSCI EAFE Small Cap	(0.7)	10.3	(4.2)	6.8	1.4	7.4	7.3
Style Index							
MSCI EAFE Growth	(0.7)	8.4	4.6	13.4	7.1	9.2	7.0
MSCI EAFE Value	(4.6)	1.2	(18.3)	(11.9)	(5.9)	1.1	2.1
Regional Index							
MSCI UK	(5.0)	(0.2)	(23.4)	(15.8)	(5.6)	(0.4)	2.0
MSCI Japan	1.0	6.9	(0.7)	6.9	3.9	7.5	6.2
MSCI Euro	(3.8)	4.2	(9.1)	(1.9)	(2.1)	4.4	3.5
MSCI EM Asia	(1.1)	11.9	8.0	21.5	5.7	11.3	5.5
MSCI EM Latin American	(5.1)	(1.3)	(36.1)	(29.4)	(11.8)	2.1	(5.7)

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	(3.4)	9.1	(12.1)	(8.2)	(4.2)	(3.1)	(6.0)
Wilshire US REIT	(3.4)	1.3	(16.7)	(17.7)	0.4	5.7	12.7
CS Leveraged Loans	0.7	4.1	(0.8)	0.8	3.2	4.6	5.0
Alerian MLP	(13.6)	(16.3)	(48.3)	(50.7)	(21.9)	(12.4)	(4.0)
Regional Index							
JPM EMBI Global Div	(1.9)	2.3	(0.5)	1.3	3.5	6.1	5.4
JPM GBI-EM Global Div	(2.0)	0.6	(6.3)	(1.4)	0.2	4.8	0.5
Hedge Funds							
HFRI Composite	(1.2)	4.1	0.5	4.0	2.7	4.0	3.6
HFRI FOF Composite	(0.4)	4.2	2.5	5.6	2.9	3.1	2.9
Currency (Spot)							
Euro	(1.9)	4.4	4.5	7.6	(0.3)	1.0	(1.5)
Pound	(3.4)	4.6	(2.4)	4.9	(1.2)	(3.1)	(2.0)
Yen	0.5	2.2	3.0	2.4	2.2	2.6	(2.3)

Source: Morningstar, HFR, as of 9/30/20

Definitions

***Bloomberg US Weekly Consumer Comfort Index** - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. (www.langerresearch.com)*

***University of Michigan Consumer Sentiment Index** - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. (www.Bloomberg.com)*

***NFIB Small Business Outlook** - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (http://www.nfib-sbet.org/about/)*

***NAHB Housing Market Index –** the housing market index is a weighted average of separate diffusion induces for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula "(Good-Poor + 100)/2" to the present and future sales series and "(High/Very High-Low/Very Low + 100)/2" to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.*

Notices & disclosures

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: Portfolio Return - [Risk-free Rate + Portfolio Beta x (Market Return - Risk-free Rate)].

Benchmark R-squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book-to-Market: The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price-to-Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

R-Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: Portfolio Excess Return / Portfolio Standard Deviation.

Sortino Ratio: Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

Standard Deviation: A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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