Student of the Market

Q4 2020 Highlights



Agenda

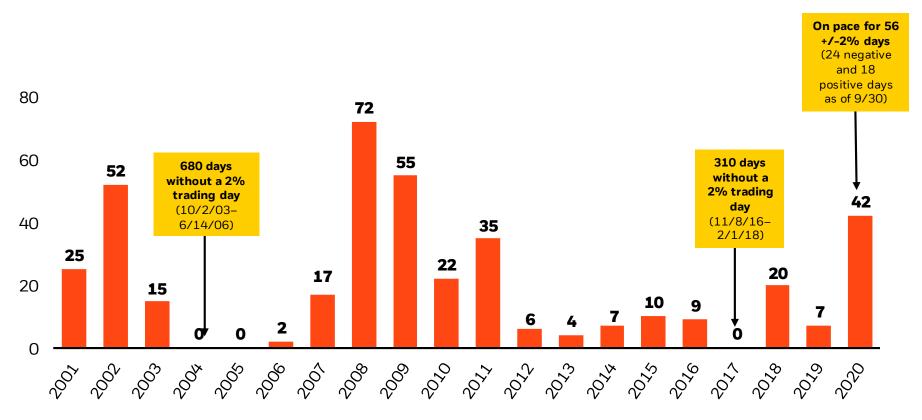
2020: A WILD RIDE

STOCKS AFTER THE REBOUND BONDS AND RECORD LOW INTEREST RATES

Highest volatility since the Financial Crisis

Number of single day stock market returns of +/-2% or more

S&P 500 by year (12/31/00 - 9/30/20)



Source: Morningstar as of 9/30/20. Stock market represented by the S&P 500 Index. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Best/worst days for the S&P 500 since 1950

Best Days

Calendar Days	S&P 500 Gain	Return 1 year later ^t
10/13/08	11.6%	7.0%
10/28/08	10.8%	10.9%
3/24/20	9.4%	?
3/13/20	9.3%	?
10/21/87	9.1%	9.8%
3/23/09	7.1%	42.7%
4/6/20	7.0%	?
11/13/08	6.9%	20.0%
11/24/08	6.5%	29.8%
3/10/09	6.4%	59.2%
11/21/08	6.3%	36.4%
3/26/20	6.2%	?
3/17/20	6.0%	?
7/24/02	5.7%	16.4%
9/30/08	5.4%	-9.4%
Average	7.6%	22.3%

Worst Days

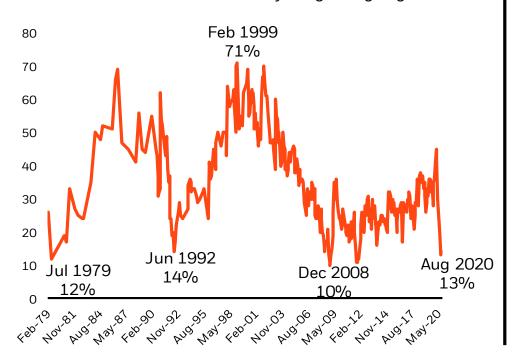
Calendar Days	S&P 500 Decline	Return 1 year later [†]
10/19/1987	-20.5%	23.1%
3/16/2020	-12.0%	?
3/12/2020	-9.5%	?
10/15/2008	-9.0%	20.8%
12/01/2008	-8.9%	35.9%
09/29/2008	-8.8%	-4.1%
10/26/1987	-8.3%	23.5%
10/09/2008	-7.6%	17.8%
3/9/2020	-7.6%	?
10/27/1997	-6.9%	21.5%
08/31/1998	-6.8%	38.0%
01/08/1988	-6.8%	15.3%
11/20/2008	-6.7%	45.1%
05/28/1962	-6.7%	26.7%
08/08/2011	-6.7%	25.2%
Average	-8.9%	24.1%

Sources: BlackRock; Morningstar as of 9/30/20. Returns are principal returns, dividends not included. U.S. stocks are represented by the S&P 500 Index and the IA SBBI US Lrg Stock USD Index, an unmanaged index that is generally considered representative of the U.S. stock market. Index performance is for illustrative purposes only. It is not possible to invest directly in an irdex. Past performance or indicate future results. Average returns and returns 1-year following each period are for illustrative purposes only. Markets are volatile and investments made in those markets can and do fluctuate. Investors shouldnot expect historical returns shown to be a guarantee of future expected performance.

Satisfaction level often a contrarian indicator of the market

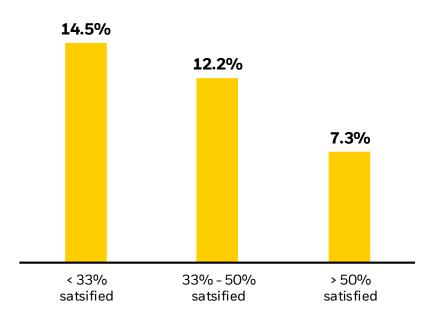
Low levels of satisfaction right now

% of Americans satisfied with the way things are going in the U.S.



U.S. stock market returns next 12 months

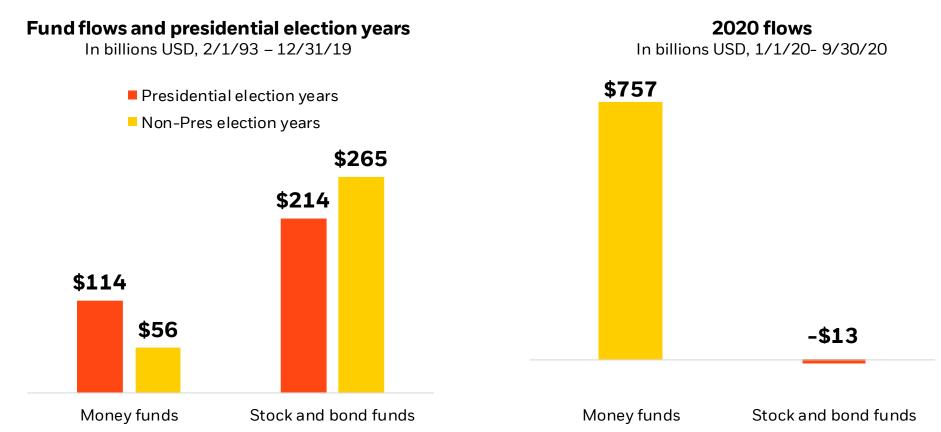
Median return following each cohort



Morningstar and Gallup as of 9/30/20. Stock market represented by the S&P 500 Index. Note: Gallup "satisfaction level" polling data was recorded every month after April 2000. Prior to April 2000, Gallup "satisfaction level" polling data was recorded on an ad hoc basis. **Past performance does not guarantee or indicate future results**. Index performance is for illustrative purposes only. You cannot invest directly in the index.

2020 WILD RIDE

Investors build up cash in election years (especially this year)



Morningstar as of 9/30/20. Money funds, and bonds funds are represented by their respective U.S. fund categories as defined by Morningstar. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

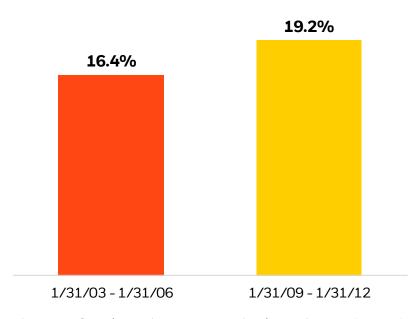
Record assets in money market funds

Money market fund assets (6/1/95 – 9/30/20)



3-year U.S. stock performance following a peak in money market fund assets

Average annual performance

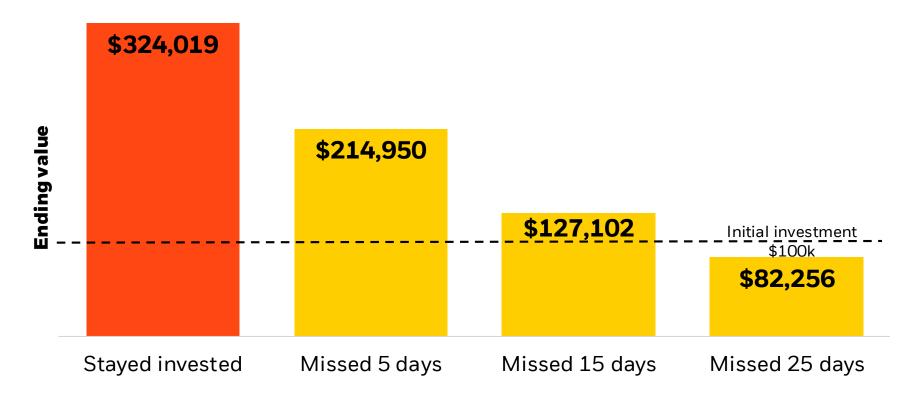


Morningstar as of 9/30/20. U.S. stocks represented by the S&P 500 Index, an unmanaged index that is generally considered representative of the U.S. stock market. **Past performance does not guarantee or indicate future results**. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Time in the market vs. timing the market

Missing top-performing days can hurt your return

Hypothetical investment of \$100,000 in the S&P 500 Index over the last 20 years (2000-2019)

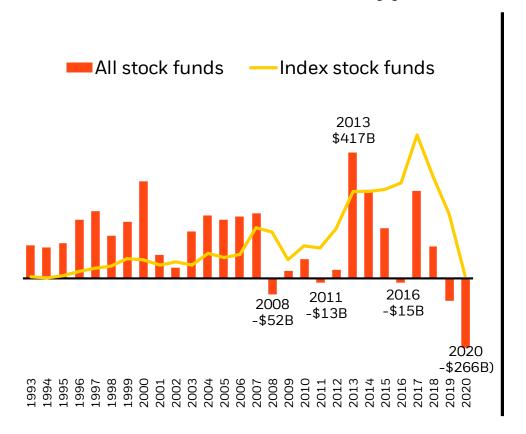


Source: Morningstar as of 12/31/19. Past performance does not guarantee or indicate future results. Index performance is shown for illustrative purposes only. You cannot invest directly in an index.

STOCKS AFTER THE REBOUND

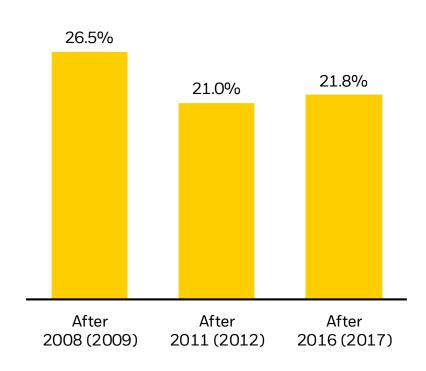
Record outflows in stock funds

Stock mutual fund and ETF flows by year



U.S. stock performance following a year when stock funds had outflows

S&P 500 index

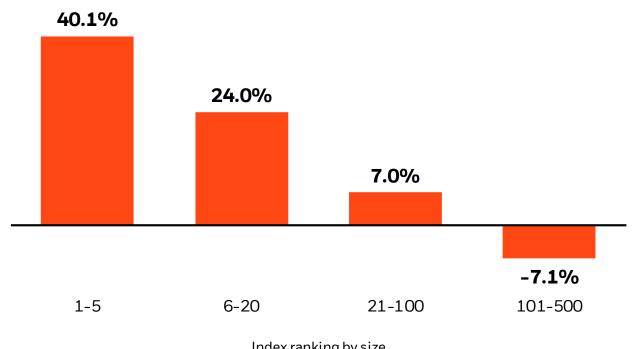


Source: Morningstar as of 9/30/20. Stock mutual funds and ETFs are represented by Morningstar Broad Equity Category. Stockmarket represented by the S&P 500 Index. **Past performance does not guarantee or indicate future results.** Index performance is for illustrative purposes only. You cannot invest directly in the index.

Largest stocks contribute the most

Not all stocks within the S&P 500 are the same

Average YTD performance of individual companies in the S&P 500 Index, grouped by market cap through 9/30/20



Largest 4% of **S&P 500 companies**

are driving positive index performance

S&P 500 is up 5.6% YTD as of 9/30/20

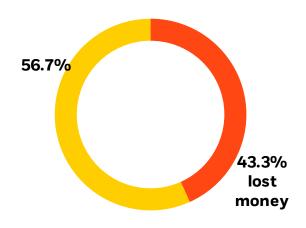
Index ranking by size

Morningstar as of 9/30/20. Stocks represented by the individual stocks of the S&P 500 Index, non-voting dual-class shares excluded. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Individual U.S. stocks vs U.S. stock funds

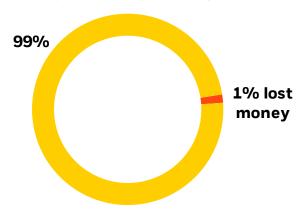
U.S. stock index is up 14.2% over the last 5 years

Individual U.S. stocks



U.S. stock funds and ETFs

(mutual funds and ETFs)



	# positive	# negative	% lost money
U.S. stocks	2052	1571	43.3%
U.S. stock mutual funds	1775	28	7.6%
U.S. stock ETFs	388	2	4%

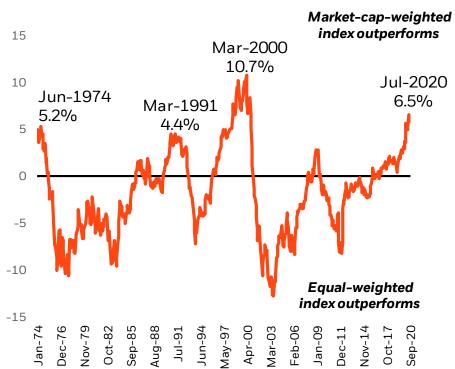
Source: Morningstar as of 9/30/20. Mutual Funds and ETFs are the Morningstar U.S. Equity Category, oldest share class only. L\$ Individual Stocks are the Morningstar US Stock Universe, all securities on the NYSE and NASDAQ. Analysis does not include obsolete mutual funds, ETFs or stocks as defined by Morningstar. **Performance is historical and does not guarantee or indicate future results**.

STOCKS AFTER THE REBOUND

Market cap weighted indexes don't outperform forever

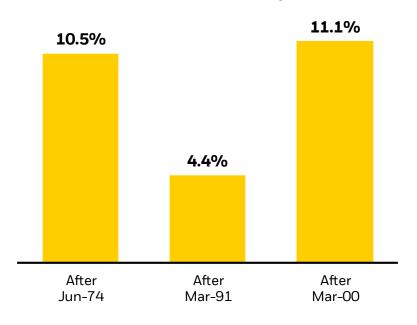
Outperformance of indices flips back and forth

Market-cap-weighted index returns minus equal-weighted index returns, 3-year average annual rolling returns 12/31/73 – 9/30/20



Equal-weighted outperforms after market-cap-weighted peaks

3-year average annual outperformance, equal-weighted index returns minus market-cap-weighted index returns



4.8% = any time market-cap outperforms equal-weighted by 4% or more

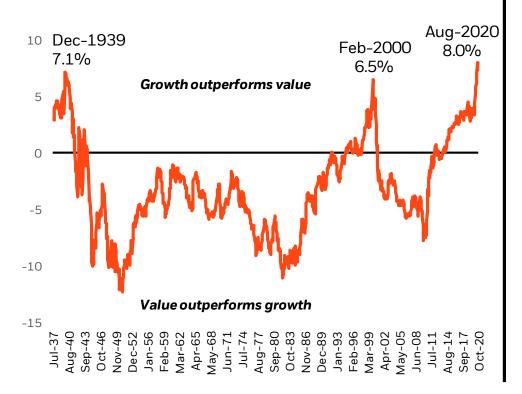
Morningstar as of 9/30/20. Market cap weighted stock market represented by the S&P 500 Index and the equal weighted stock market index represented by the S&P 500 equal weighted index. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

STOCKS AFTER THE REBOUND

Largest growth cycle in history

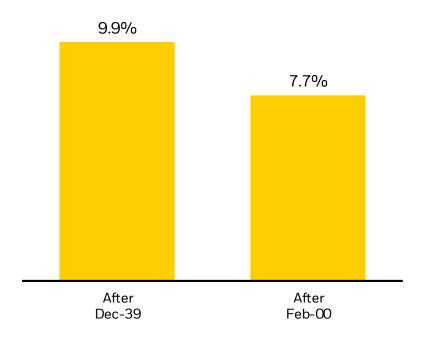
Outperformance of indices flips back and forth

Large growth index returns minus large value index returns, 10-year average annual rolling returns 7/1/37 – 9/30/20



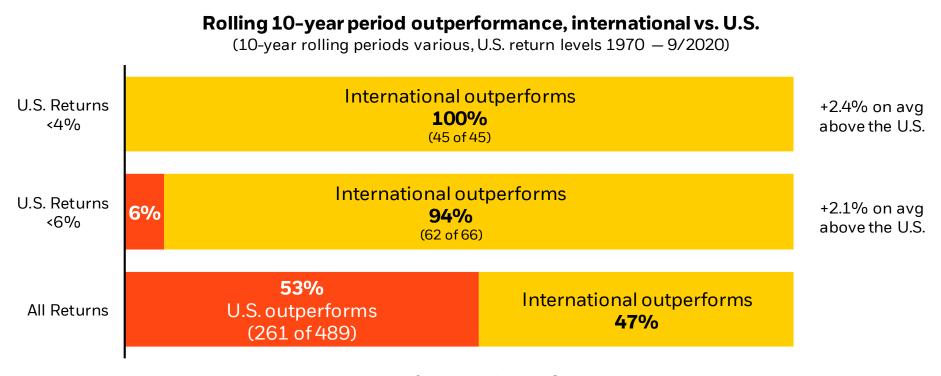
Large value outperforms after previous peaks in large growth outperformance

Average annual outperformance for 10 years after date, large value index returns minus large growth index returns



Source: Morningstar as of 9/30/20. Large growth index represented by the Russell 1000 Growth TR USD Index from 1/1/87 to 9/30/20 and Fama-French Large Growth TR index from 7/1/37 to 1/1/87. Large value index represented by the Russell 1000 Growth TR USD Index from 1/1/87 to 9/30/20 and the Fama-French Large Value TR index from 1/1/87. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

International stocks: Should we even bother?



International has outperformed when U.S. stock returns were low

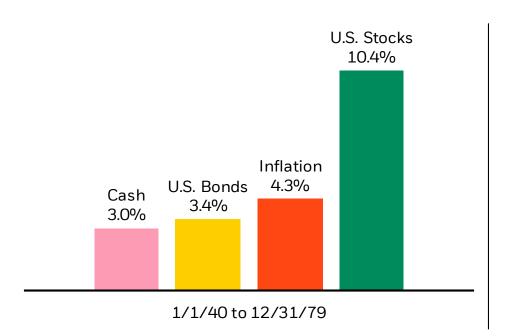
Source: Morningstar as of 9/30/20. U.S. stocks represented by the S&P 500 and International stocks represented by the MSCI EAFE Index. Past performance does not guarantee or indicate future results. Past performance is for illustrative purposes only. You cannot invest directly in the index.

BONDS AND RECORD LOW INTEREST RATES

Long term returns, interest rates and inflation

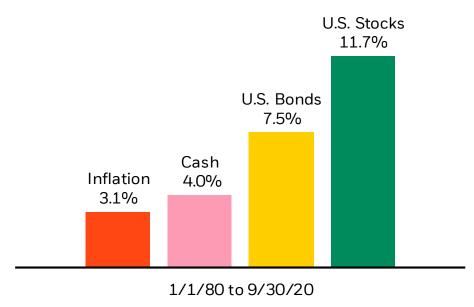
Average annual returns in a LOW & RISING interest rate environment

(10-year U.S Treasury, 2.3% on 1/1/1940 and finished at 10.4% on 12/31/1979)



Average annual returns in a HIGH & FALLING interest rate environment

 $(10-year\ U.S\ Treasury, 10.4\%\ on\ 1/1/1980\ and\ finished$ at $0.7\%\ on\ 9/30/2020)$



Morningstar and the Shiller database as of 9/30/20. Interest rates represented by the U.S. 10 year Treasury bond (month-end) and the bond market return represented by the IA SBBI IT US Govi Index for the period 1/1/1980 to 9/30/2020, inflation by the BLS CPI NSA, cash by the U.S. 1 Month treasury bill index and stocks by the IA SBBI US Large Cap Stock Index Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

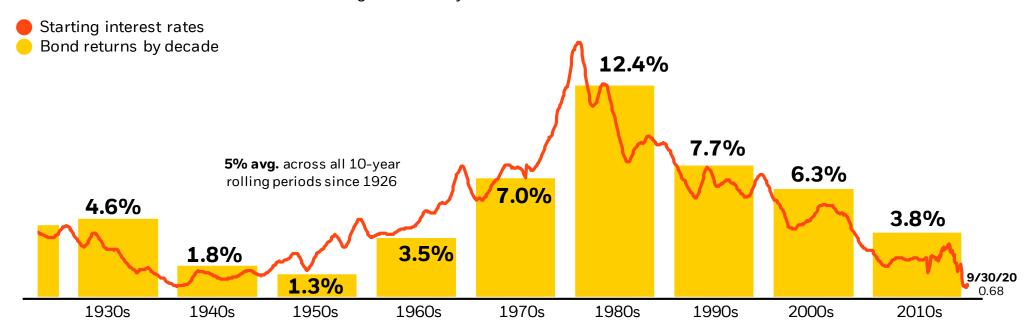
BONDS AND RECORD LOW INTEREST RATES

Lower bond returns taking hold

Bonds on pace for the lowest returns since the 1960s

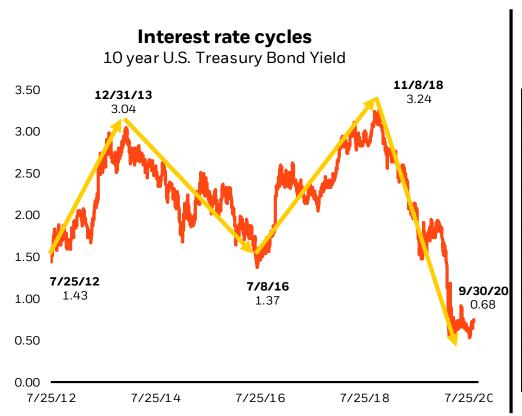
U.S. bond returns follow interest rates

(Avg. annual 10-year returns since 1926)



*Represents return decade-to-date (1/1/10 to 9/30/20). Morningstar and U.S. Treasury as of 9/30/19. US Bonds represented by the IA US IT Govt Tr Index before 1979 and by the BBg Barc US Agg Bond Index after 1979. **Past performance does not** guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Bond fund flexibility when interest rates rise



Bond categories

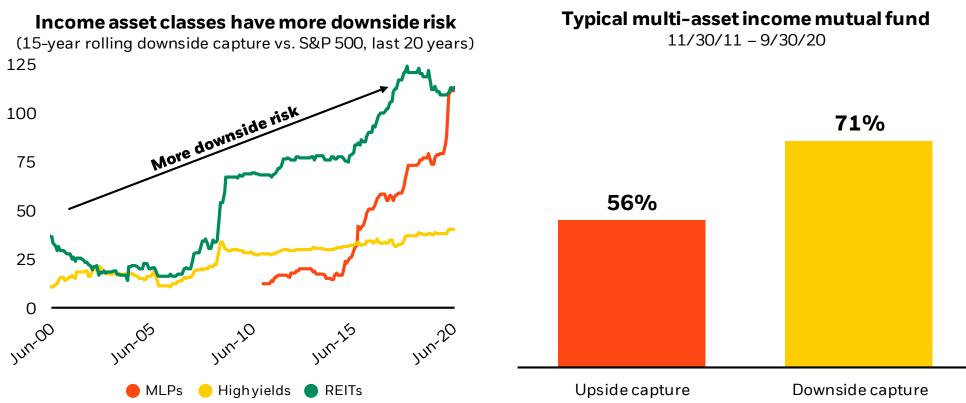
Total returns based on rising or falling interest rates

	Core bond index	Intermediate core bond	Intermediate core- plus bond		
Rising interest rates					
2012-07-26to 2013-12-31	-1.2	0.3	0.9		
2016-07-09 to 2018-11-08	-1.1	-0.4	0.0		
Falling interest rates					
2018-11-09 to 2020-09-30	9.7	8.9	8.8		
2014-01-01 to 2016-07-08	5.0	4.2	4.3		
Entire period					
2012-07-26to 2020-09-30	3.2	3.2	3.5		

Source: Morningstar, St. Louis Federal Reserve as of 9/30/20. Core bond index represented by theBbg Barc US Agg Bond TR Index. Intermediate cord bonds represented by the Morningstar US Intermediate Core Bond category. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

BONDS AND RECORD LOW INTEREST RATES

Income asset classes and funds in a low interest rate world...



Source: BlackRock, Morningstar as of 9/30/2020. MLPs are represented by the Alerian MLP TR USD Index, High Yield by the Bbg Barc US Corporate High Yield Index, REITS by the FTSE NAREIT All Equity REIT Index, and Average Multi Asset Income Mutual Fund by the broad Allocation Fund category as defined by Morningstar. 'Allocation funds as defined by Morningstar that have income over 4% are considered by BlackRock to be income-oriented. Income percentage is calculated by dividing the sum of a fund's 12-month trailing dividends by it's NAV as of the date shown. **Past performance does not quarantee or indicate future results.** Indexes are used for illustrative purposes only. You cannot invest directly in an index.

A diversified portfolio can work even though it never feels good

Last 20 years

40% U.S. stocks, 10% international stocks, 5% small cap stocks, 5% emerging market stocks, 30% U.S. bonds, 10% high yield bonds

Years	S&P 500	Diversified Portfolio		
2000–2002†	-18.4%	-6.8%		"I lost money"
2003–2007	82.9%	80.1%		"I didn't make as much"
2008	-37.0%	-24.0%		"I lost money"
2009–2019	351.0%	195.9%		"I didn't make as much"
2020 [†]	-30.4%	-20.7%		"I lost money"
2020*	51.8%	30.0%		"I didn't make as much"
Total Return	247.1%	253.5%		"Diversification can work even
Gr \$100K	\$347,100	\$353,530		when it feels like its losing"

Source: Morningstar as of 9/30/20. 'Performance is from 10/1/2000 to 12/31/02. 'Performance is from 1/1/20 to 3/23/20. 'Performance is from 3/24/20 to 9/30/20. Diversified Portfolio is represented by 40% S&P 500 Index, 10% MSCI EAFE Index, 5% Russell 2000 Index, 30% Bloomberg Barclays US Aggregate Bond Index, and 10% Bloomberg Barclays US Corporate High Yeld Index, 5% FTSE Emerging Stock Index. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Student of the Market: Q4 Greatest Hits

Returns as of 9/30/2020	Total Ret 1 Year	Total Ret 5 Years	Total Ret 10 Years
<u>S&P 500 TR USD</u>	15.15	14.15	13.74
Alerian MLP TR USD	-48.35	-11.58	-4.17
BBgBarc Municipal TR USD	4.09	3.84	3.99
BBgBarc US Agg Bond TRUSD	6.98	4.18	3.64
BBgBarc US Corporate High Yield TR USD	3.25	6.79	6.47
FTSE Emerging TR USD	9.79	9.21	2.82
FTSE Nareit All Equity REITs TR USD	-12.15	6.61	9.20
IA SBBI US IT Govt TR USD	7.94	3.84	2.95
IA SBBI US Large Stock TR USD Ext	15.15	14.15	13.74
MSCI EAFE NR USD	0.49	5.26	4.62
MSCI USA High Dividend Yield NR USD	-3.30	9.68	10.95
MSCI USA Minimum Volatility (USD) NR USD	1.27	11.73	12.61
MSCI USA Momentum NR USD	24.97	17.93	16.81
MSCI USA Quality NR USD	23.93	16.76	15.42
Russell 1000 Growth TR USD	37.53	20.10	17.25
Russell 1000 Value TR USD	-5.03	7.66	9.95
Russell 2000 TR USD	0.39	8.00	9.85
US Fund Intermediate Core Bond	6.66	3.94	3.49
US Fund Intermediate Core-Plus Bond	6.37	4.32	3.97
Wilshire Liq Alt Event Driven TR USD	2.44	2.27	1.76

Source: Morningstar. Performance data quoted represents past performance and is no guarantee of future results. Current performance may be lower or higher than that shown.

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