

Fund Information (Feb 2011 - Dec 2019)

Field	Value	Value
Ticker	RWO	SCHH
Name	SPDR Dow Jones Global Real Estate ETF	Schwab US REIT ETF
Asset Class	Sector Equity	Sector Equity
Category	Global Real Estate	Real Estate
Fund Benchmark	DJ Gbl Select RESI NR USD	DJ US Select REIT TR USD
Selected Benchmark	Vanguard Real Estate ETF (VNQ)	Vanguard Real Estate ETF (VNQ)
Yield (SEC)	3.15%	3.52%
Yield (TTM)	3.96%	2.86%
Assets	2.21 B	6.10 B
Expense Ratio	0.50%	0.07%
Inception Date	05/07/2008	01/13/2011

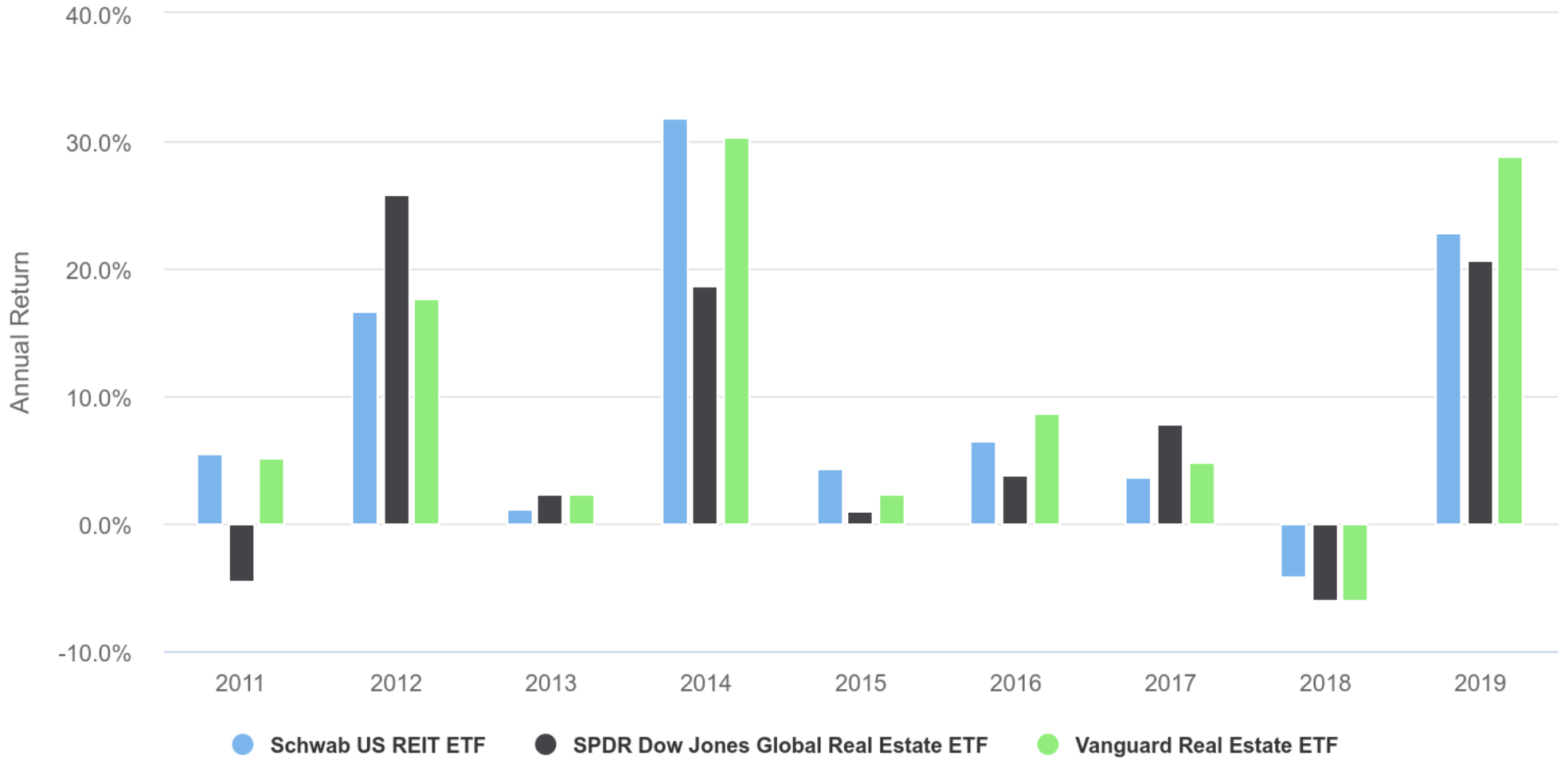
Fund Performance Summary

Metric	Schwab US REIT ETF	SPDR Dow Jones Global Real Estate ETF	Vanguard Real Estate ETF
Start Balance	\$10,000	\$10,000	\$10,000
End Balance	\$22,289	\$18,723	\$23,324
End Balance (inflation adjusted)	\$19,102	\$16,045	\$19,989
CAGR	9.41%	7.29%	9.96%
CAGR (inflation adjusted)	7.53%	5.45%	8.08%
Stdev	14.78%	13.17%	14.77%
Best Year	31.87%	25.79%	30.36%
Worst Year	-4.22%	-5.99%	-6.02%
Max. Drawdown	-17.38%	-18.80%	-17.36%
Sharpe Ratio	0.64	0.55	0.68
Sortino Ratio	1.06	0.87	1.12
US Stock Market Correlation	0.58	0.65	0.58

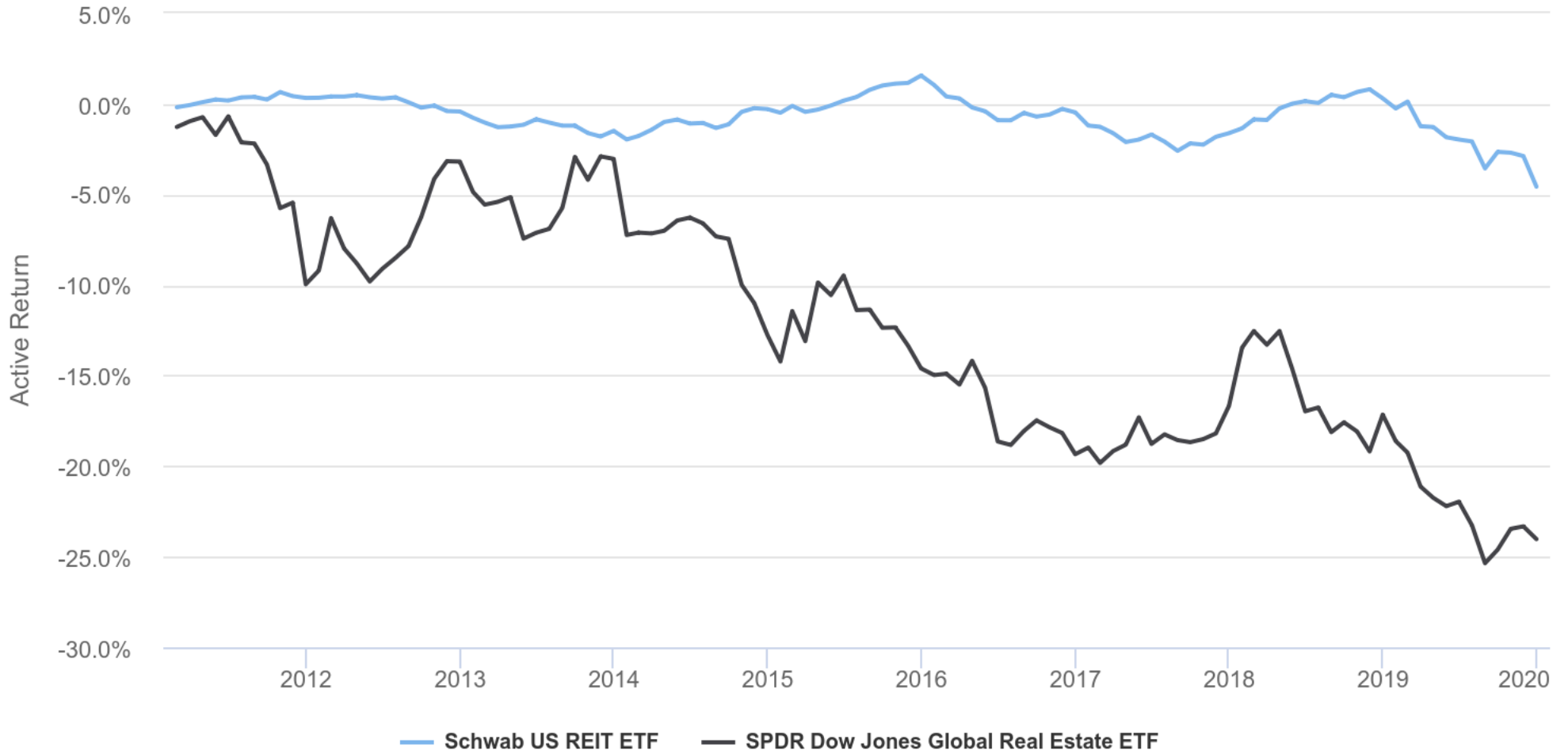
Growth Chart



Annual Returns



Cumulative Active Return



Risk and Return Metrics

Metric	Schwab US REIT ETF	SPDR Dow Jones Global Real Estate ETF	Vanguard Real Estate ETF
Arithmetic Mean (monthly)	0.84%	0.66%	0.88%
Arithmetic Mean (annualized)	10.58%	8.21%	11.14%
Geometric Mean (monthly)	0.75%	0.59%	0.79%
Geometric Mean (annualized)	9.41%	7.29%	9.96%
Volatility (monthly)	4.27%	3.80%	4.26%
Volatility (annualized)	14.78%	13.17%	14.77%
Downside Deviation (monthly)	2.56%	2.41%	2.56%
Max. Drawdown	-17.38%	-18.80%	-17.36%
US Market Correlation	0.58	0.65	0.58
Beta (*)	1.00	0.85	1.00
Alpha (annualized)	-0.47%	-1.05%	-0.00%
R Squared	99.14%	89.80%	100.00%
Sharpe Ratio	0.64	0.55	0.68
Sortino Ratio	1.06	0.87	1.12
Treynor Ratio (%)	9.52	8.64	10.00
Calmar Ratio	0.63	0.88	0.71
Active Return	-0.56%	-2.68%	N/A
Tracking Error	1.38%	4.79%	N/A
Information Ratio	-0.41	-0.56	N/A
Skewness	0.12	-0.11	0.08
Excess Kurtosis	0.81	1.39	0.71
Historical Value-at-Risk (5%)	-5.89%	-6.15%	-6.19%
Analytical Value-at-Risk (5%)	-6.18%	-5.60%	-6.13%
Conditional Value-at-Risk (5%)	-7.94%	-7.90%	-7.95%
Upside Capture Ratio (%)	98.28	76.63	100.00
Downside Capture Ratio (%)	100.79	82.80	100.00
Safe Withdrawal Rate	15.91%	14.27%	16.02%
Perpetual Withdrawal Rate	6.94%	5.12%	7.41%
Positive Periods	63 out of 107 (58.88%)	68 out of 107 (63.55%)	64 out of 107 (59.81%)
Gain/Loss Ratio	1.16	0.92	1.15

(*) Vanguard Real Estate ETF is used as the benchmark for calculations. Value-at-risk metrics are based on monthly values.

Schwab US REIT ETF Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2011		4.52%	-1.50%	5.91%	1.52%	-3.36%	1.74%	-5.60%	-10.99%	14.70%	-4.02%	4.75%	5.46%
2012	6.39%	-1.08%	5.19%	2.94%	-4.63%	5.45%	2.07%	-0.29%	-2.15%	-0.79%	-0.57%	3.70%	16.74%
2013	3.39%	0.95%	2.61%	6.77%	-5.88%	-1.67%	0.72%	-7.15%	3.49%	4.11%	-5.44%	0.41%	1.25%
2014	3.80%	5.25%	0.83%	3.71%	2.53%	0.91%	0.11%	2.77%	-5.84%	10.63%	2.20%	1.83%	31.87%
2015	6.65%	-3.30%	1.41%	-5.72%	-0.08%	-4.41%	5.97%	-5.90%	3.29%	5.86%	-0.58%	2.22%	4.38%
2016	-3.96%	-1.00%	10.37%	-2.85%	2.04%	6.43%	4.26%	-3.36%	-2.02%	-5.63%	-1.37%	4.63%	6.46%
2017	-0.93%	3.44%	-2.78%	-0.25%	-0.59%	2.51%	0.85%	-0.77%	0.30%	-1.14%	3.10%	0.06%	3.68%
2018	-3.99%	-7.18%	3.85%	1.46%	3.94%	4.33%	0.50%	3.02%	-2.77%	-2.64%	4.82%	-8.46%	-4.22%
2019	11.30%	1.07%	2.85%	-0.20%	-0.43%	1.42%	1.60%	2.26%	2.84%	1.08%	-1.49%	-0.93%	22.89%

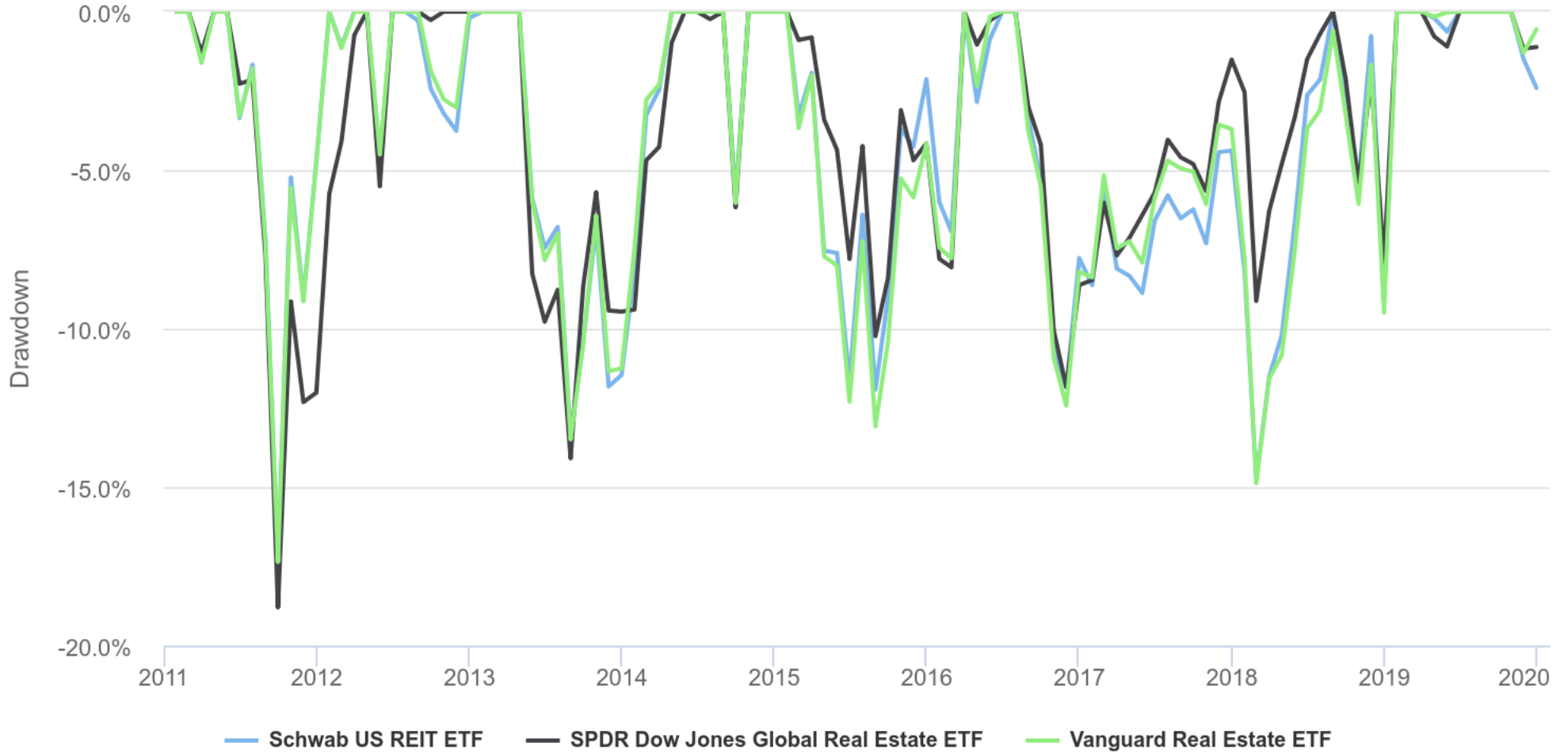
SPDR Dow Jones Global Real Estate ETF Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2011		3.43%	-1.30%	5.97%	0.40%	-2.27%	0.13%	-5.68%	-12.02%	11.89%	-3.50%	0.34%	-4.45%
2012	7.14%	1.74%	3.51%	2.04%	-5.51%	6.23%	2.60%	0.64%	-0.27%	1.21%	0.71%	3.70%	25.79%
2013	2.07%	0.51%	3.02%	6.99%	-8.27%	-1.65%	1.12%	-5.83%	6.30%	3.26%	-3.96%	-0.04%	2.38%
2014	0.07%	5.20%	0.45%	3.43%	2.97%	1.29%	-0.24%	2.32%	-6.17%	7.40%	0.99%	0.13%	18.66%
2015	5.38%	-0.89%	0.09%	-2.62%	-0.99%	-3.60%	3.86%	-6.26%	2.05%	5.78%	-1.63%	0.56%	1.00%
2016	-3.80%	-0.29%	9.88%	-1.04%	0.76%	3.96%	4.07%	-3.00%	-1.23%	-6.12%	-1.99%	3.65%	3.89%
2017	0.17%	2.66%	-1.77%	0.59%	0.78%	0.77%	1.76%	-0.58%	-0.22%	-0.90%	2.98%	1.38%	7.78%
2018	-1.04%	-6.76%	3.13%	1.58%	1.53%	1.92%	0.81%	1.22%	-2.10%	-3.43%	3.57%	-5.93%	-5.99%
2019	10.39%	0.06%	2.33%	-0.78%	-0.32%	1.79%	0.40%	1.66%	2.68%	2.28%	-1.17%	0.05%	20.60%

Vanguard Real Estate ETF Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2011		4.71%	-1.62%	5.75%	1.37%	-3.30%	1.56%	-5.62%	-10.85%	14.29%	-3.80%	4.85%	5.20%
2012	6.38%	-1.15%	5.19%	2.86%	-4.51%	5.52%	2.00%	-0.01%	-1.86%	-0.91%	-0.26%	3.72%	17.63%
2013	3.74%	1.22%	2.87%	6.73%	-5.98%	-1.98%	0.90%	-6.98%	3.49%	4.52%	-5.25%	0.10%	2.31%
2014	4.28%	5.07%	0.49%	3.29%	2.40%	1.13%	0.08%	3.04%	-6.04%	9.94%	2.00%	1.88%	30.36%
2015	6.85%	-3.67%	1.74%	-5.85%	-0.30%	-4.68%	5.77%	-6.29%	3.05%	5.76%	-0.63%	1.82%	2.42%
2016	-3.44%	-0.36%	10.48%	-2.35%	2.25%	6.92%	4.26%	-3.76%	-1.82%	-5.74%	-1.68%	4.82%	8.60%
2017	-0.19%	3.51%	-2.42%	0.24%	-0.72%	2.23%	1.24%	-0.26%	-0.11%	-1.07%	2.66%	-0.14%	4.91%
2018	-4.25%	-7.68%	3.88%	0.82%	3.68%	4.20%	0.60%	2.58%	-2.64%	-2.93%	4.67%	-7.96%	-6.02%
2019	11.85%	0.70%	4.21%	-0.16%	0.14%	1.54%	1.70%	3.75%	1.93%	1.13%	-1.30%	0.76%	28.87%

Drawdowns



Drawdowns for Schwab US REIT ETF (worst 10)

Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Jun 2011	Sep 2011	4 months	Jan 2012	4 months	8 months	-17.38%
2	Aug 2016	Feb 2018	1 year 7 months	Aug 2018	6 months	2 years 1 month	-14.79%
3	May 2013	Aug 2013	4 months	Apr 2014	8 months	1 year	-13.45%
4	Feb 2015	Aug 2015	7 months	Mar 2016	7 months	1 year 2 months	-11.93%
5	Sep 2018	Dec 2018	4 months	Jan 2019	1 month	5 months	-9.16%
6	Sep 2014	Sep 2014	1 month	Oct 2014	1 month	2 months	-5.84%
7	May 2012	May 2012	1 month	Jun 2012	1 month	2 months	-4.63%
8	Aug 2012	Nov 2012	4 months	Jan 2013	2 months	6 months	-3.76%
9	Apr 2016	Apr 2016	1 month	Jun 2016	2 months	3 months	-2.85%
10	Nov 2019	Dec 2019	2 months				-2.41%

Drawdowns for SPDR Dow Jones Global Real Estate ETF (worst 10)

Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Jun 2011	Sep 2011	4 months	Apr 2012	7 months	11 months	-18.80%
2	May 2013	Aug 2013	4 months	May 2014	9 months	1 year 1 month	-14.09%
3	Aug 2016	Nov 2016	4 months	Aug 2018	1 year 9 months	2 years 1 month	-11.84%
4	Feb 2015	Aug 2015	7 months	Mar 2016	7 months	1 year 2 months	-10.24%
5	Sep 2018	Dec 2018	4 months	Jan 2019	1 month	5 months	-7.89%
6	Sep 2014	Sep 2014	1 month	Oct 2014	1 month	2 months	-6.17%
7	May 2012	May 2012	1 month	Jun 2012	1 month	2 months	-5.51%
8	Mar 2011	Mar 2011	1 month	Apr 2011	1 month	2 months	-1.30%
9	Nov 2019	Nov 2019	1 month				-1.17%
10	Apr 2019	May 2019	2 months	Jun 2019	1 month	3 months	-1.10%

Drawdowns for Vanguard Real Estate ETF (worst 10)

Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Jun 2011	Sep 2011	4 months	Jan 2012	4 months	8 months	-17.36%
2	Aug 2016	Feb 2018	1 year 7 months	Jan 2019	11 months	2 years 6 months	-14.88%
3	May 2013	Aug 2013	4 months	Apr 2014	8 months	1 year	-13.50%
4	Feb 2015	Aug 2015	7 months	Mar 2016	7 months	1 year 2 months	-13.08%
5	Sep 2014	Sep 2014	1 month	Oct 2014	1 month	2 months	-6.04%
6	May 2012	May 2012	1 month	Jun 2012	1 month	2 months	-4.51%
7	Aug 2012	Nov 2012	4 months	Dec 2012	1 month	5 months	-3.02%
8	Apr 2016	Apr 2016	1 month	Jun 2016	2 months	3 months	-2.35%
9	Mar 2011	Mar 2011	1 month	Apr 2011	1 month	2 months	-1.62%
10	Nov 2019	Nov 2019	1 month				-1.30%

Portfolio Returns Based Style Analysis

Style Category	Schwab US REIT ETF	SPDR Dow Jones Global Real Estate ETF	Vanguard Real Estate ETF
Large-cap Value	0.00%	0.00%	0.00%
Large-cap Growth	0.00%	0.00%	0.00%
Mid-cap Value	0.00%	0.00%	0.00%
Mid-cap Growth	0.00%	0.00%	0.00%
Small-cap Value	1.92%	0.00%	0.00%
Small-cap Growth	0.00%	0.00%	0.00%
Global ex-US Developed Markets	0.00%	19.26%	0.00%
Emerging Markets	0.00%	9.01%	0.00%
REITs	98.08%	68.83%	100.00%
Corporate Bonds	0.00%	0.00%	0.00%
Long-Term Treasuries	0.00%	2.90%	0.00%
Intermediate-Term Treasuries	0.00%	0.00%	0.00%
Short-Term Treasuries	0.00%	0.00%	0.00%
R Squared	99.16%	95.87%	100.00%

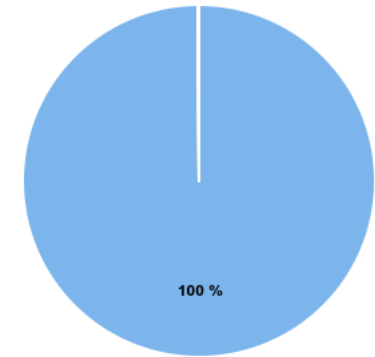
Style analysis is based on monthly returns from Feb 2011 to Dec 2019 and uses total portfolio return with monthly rebalancing. Returns based style analysis aims to explain the portfolio returns based on asset class exposures, it does not identify the actual portfolio holdings.

Exposures for Schwab US REIT ETF

Ticker	Name	Category	ER	Weight
SCHH	Schwab US REIT ETF	Real Estate	0.07%	100.00%

Asset Allocation for Schwab US REIT ETF

Category	Weight
US Stocks	99.96%
Intl Stocks	0.00%
US Bonds	0.00%
Intl Bonds	0.00%
Other	0.00%
Cash	0.04%



- US Stocks
- Intl Bonds
- Intl Stocks
- Other
- US Bonds
- Cash

Equity Market Capitalization for Schwab US REIT ETF

Category	Weight
Large Cap	34.83%
Mid Cap	52.12%
Small Cap	13.05%

Stock Sectors for Schwab US REIT ETF

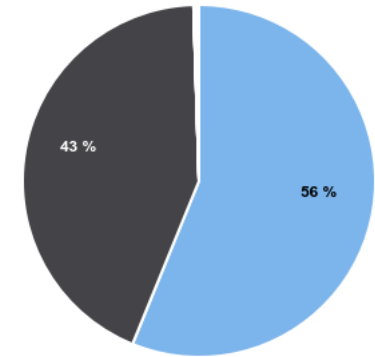
Category	Weight
Basic Materials	0.00%
Consumer Cyclical	0.00%
Financial Services	0.00%
Real Estate	100.00%
Consumer Defensive	0.00%
Healthcare	0.00%
Utilities	0.00%
Communication Services	0.00%
Energy	0.00%
Industrials	0.00%
Technology	0.00%

Exposures for SPDR Dow Jones Global Real Estate ETF

Ticker	Name	Category	ER	Weight
RWO	SPDR Dow Jones Global Real Estate ETF	Global Real Estate	0.50%	100.00%

Asset Allocation for SPDR Dow Jones Global Real Estate ETF

Category	Weight
US Stocks	56.17%
Intl Stocks	43.34%
US Bonds	0.00%
Intl Bonds	0.00%
Other	0.25%
Cash	0.24%



Equity Market Capitalization for SPDR Dow Jones Global Real Estate ETF

Category	Weight
Large Cap	36.21%
Mid Cap	53.54%
Small Cap	10.25%

Stock Sectors for SPDR Dow Jones Global Real Estate ETF

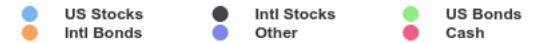
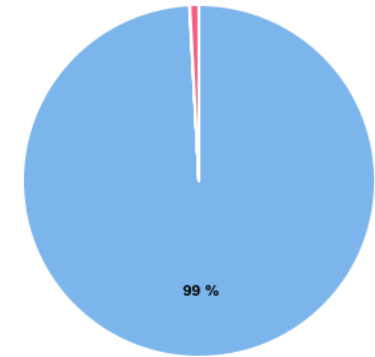
Category	Weight
Basic Materials	0.00%
Consumer Cyclical	0.00%
Financial Services	0.00%
Real Estate	100.00%
Consumer Defensive	0.00%
Healthcare	0.00%
Utilities	0.00%
Communication Services	0.00%
Energy	0.00%
Industrials	0.00%
Technology	0.00%

Exposures for Vanguard Real Estate ETF

Ticker	Name	Category	ER	Weight
VNQ	Vanguard Real Estate ETF	Real Estate	0.12%	100.00%

Asset Allocation for Vanguard Real Estate ETF

Category	Weight
US Stocks	99.13%
Intl Stocks	0.06%
US Bonds	0.00%
Intl Bonds	0.00%
Other	0.00%
Cash	0.81%



Equity Market Capitalization for Vanguard Real Estate ETF

Category	Weight
Large Cap	45.25%
Mid Cap	41.93%
Small Cap	12.82%

Stock Sectors for Vanguard Real Estate ETF

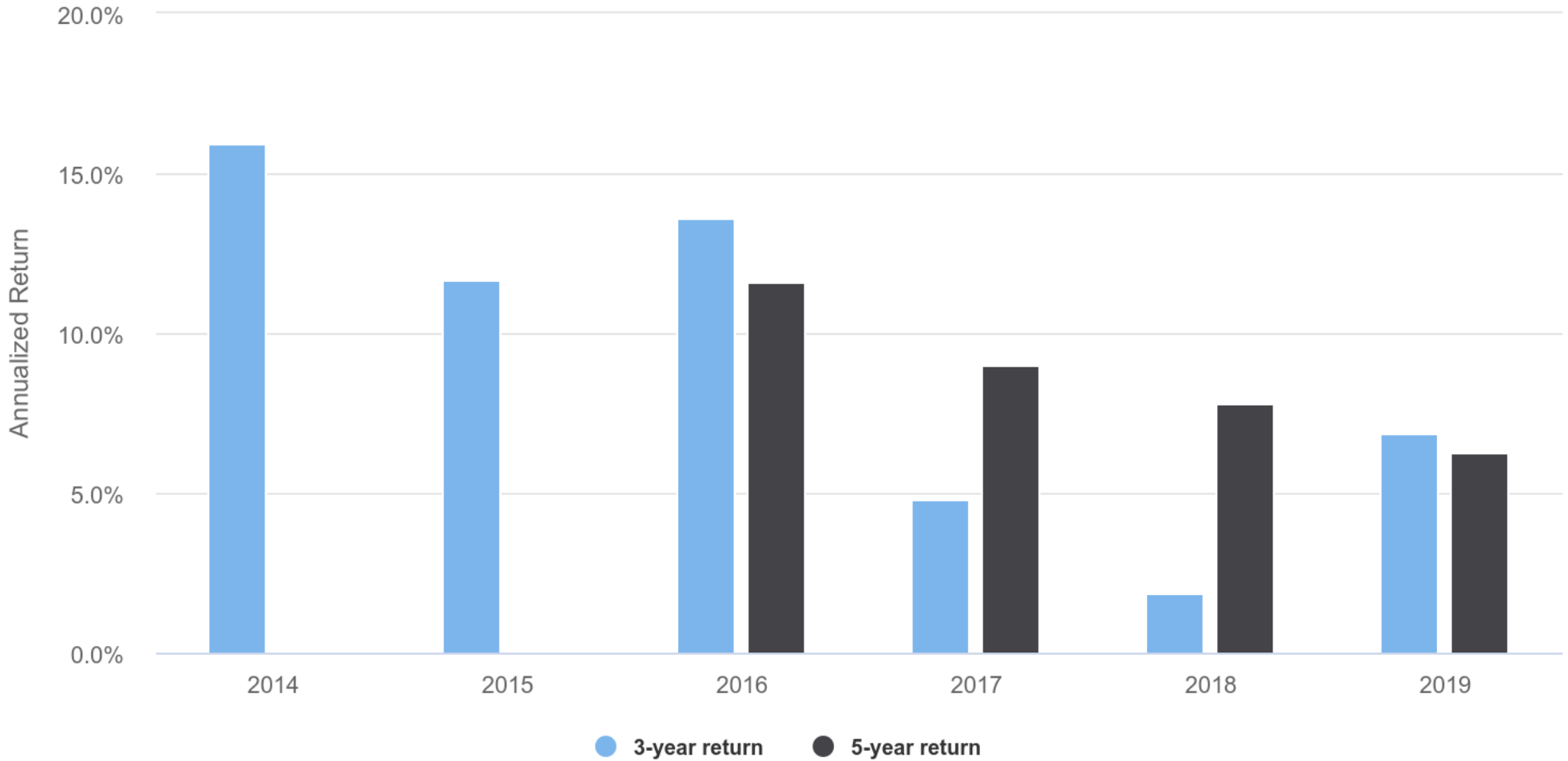
Category	Weight
Basic Materials	0.00%
Consumer Cyclical	0.00%
Financial Services	0.01%
Real Estate	99.96%
Consumer Defensive	0.00%
Healthcare	0.00%
Utilities	0.00%
Communication Services	0.00%
Energy	0.00%
Industrials	0.03%
Technology	0.00%

Rolling Returns

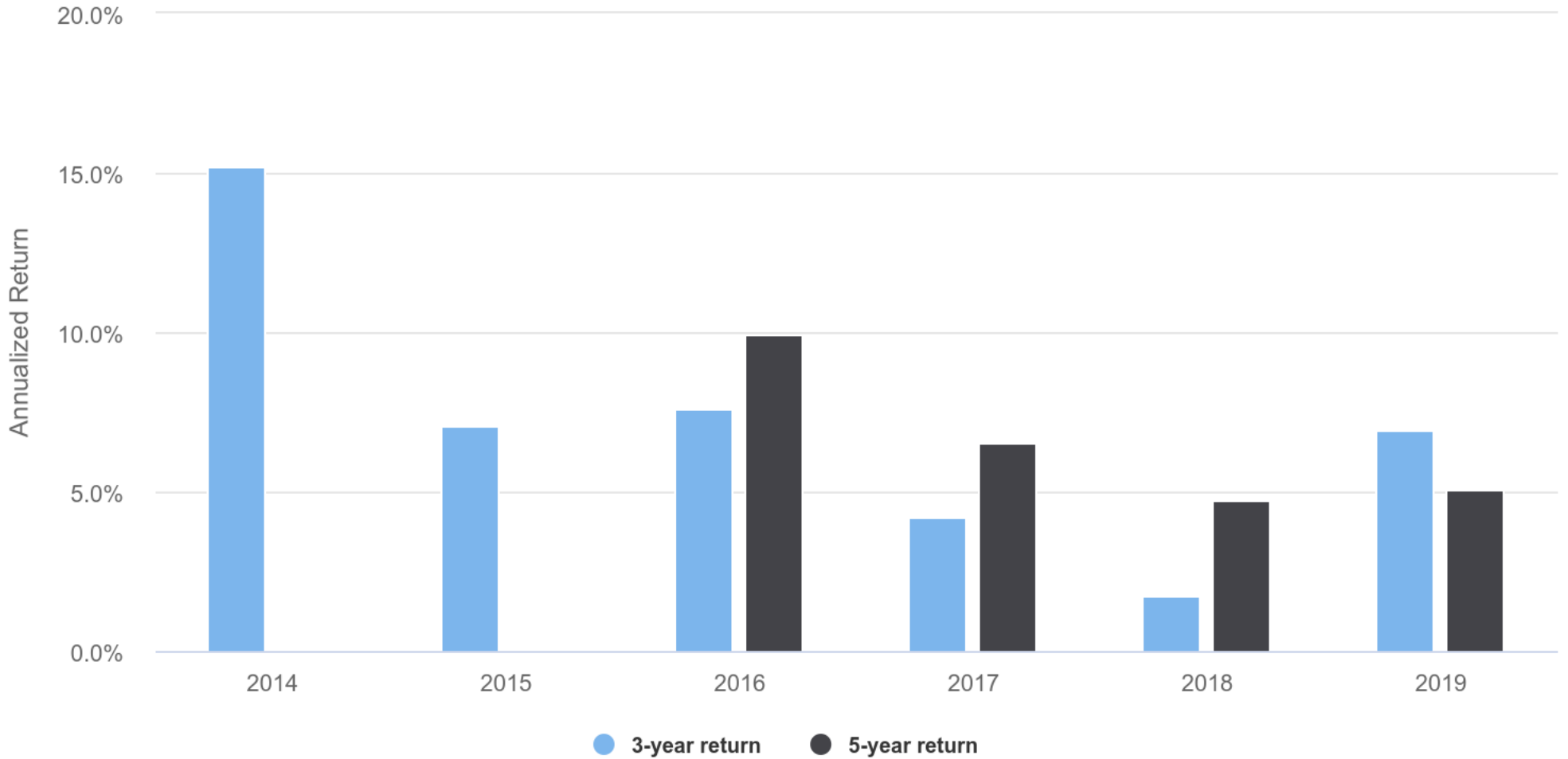
Roll Period	Schwab US REIT ETF			SPDR Dow Jones Global Real Estate ETF			Vanguard Real Estate ETF		
	Average	High	Low	Average	High	Low	Average	High	Low
1 year	10.38%	31.87%	-4.22%	9.26%	25.79%	-5.99%	11.14%	30.36%	-6.02%
3 years	9.13%	15.94%	1.87%	7.11%	15.18%	1.73%	9.37%	16.20%	2.31%
5 years	8.67%	11.61%	6.28%	6.58%	9.90%	4.76%	8.90%	11.78%	7.16%
7 years	8.45%	8.85%	8.05%	6.86%	7.18%	6.54%	8.77%	9.48%	8.06%

Result statistics are based on annualized rolling returns over full calendar year periods

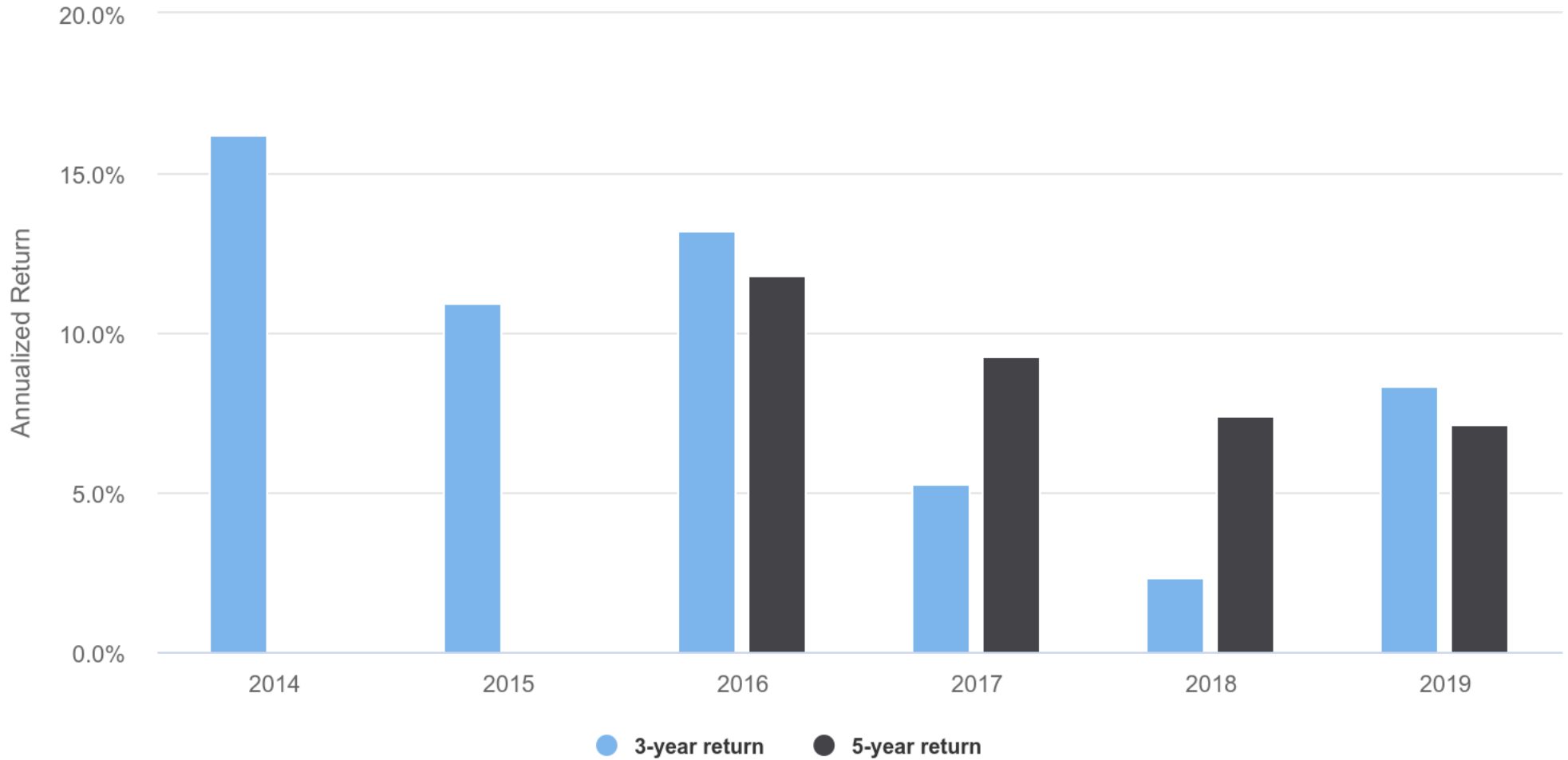
Schwab US REIT ETF Rolling Returns



SPDR Dow Jones Global Real Estate ETF Rolling Returns



Vanguard Real Estate ETF Rolling Returns



Notes:

- Past performance is no guarantee of future results, which may vary. All use is subject to terms of service.
- Investing involves risk, including possible loss of principal. The value of the investments and the income derived from them may fluctuate over time.
- All portfolio returns presented are hypothetical and backtested. Hypothetical returns do not reflect trading costs, transaction fees, or taxes.
- The results are based on information from a variety of sources we consider reliable, but we do not represent that the information is accurate or complete.
- The results do not constitute investment advice or recommendation, are provided solely for informational purposes, and are not an offer to buy or sell any securities.
- The results are based on the total return of assets and assume that all received dividends and distributions are reinvested.
- Fund fundamentals data as of 01/06/2020. (c) 2020 Morningstar. All Rights Reserved. The fund fundamentals information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information.
- Displayed expense ratio is the prospectus net expense ratio
- CAGR = Compound Annual Growth Rate
- Stdev = Annualized standard deviation of monthly returns
- Sharpe and Sortino ratios are calculated and annualized from monthly excess returns over risk free rate (3-month treasury bill)
- Stock market correlation is based on the correlation of monthly returns
- Drawdowns are calculated based on monthly returns