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Risk Aware Investing, Part 1: Dividend ETFs

Disclosure: I have no positions in any stocks mentioned, and no plans to initiate any positions within the next 72 hours. I wrote this article myself, and it expresses my own opinions. I am not receiving compensation for it (other than from Seeking Alpha). I have no business relationship with any company whose stock is mentioned in this article.

Summary

- Risk review of possible downside returns and extreme scenario stress tests for top 10 dividend ETFs.
- Comparative dividend payment patterns and upside/downside capture ratios and risk/return ratios.
- Comparative yield, valuation multiples and portfolio composition.

Risk awareness is an important part of investing. It's no less critical today than in other times. With low US interest rates, rather full valuation of US stocks, China potentially facing a round of insolvencies, and Russian action in the Ukraine, thinking about risk as well as return is a logical imperative.

Benjamin Graham is reported to have said "The essence of investment is management of risk, not management of returns."

Limiting losses is just as important, if not as important, as positioning for gains. "Losses" due to volatility and market cycles are not the same as bankruptcies or defaults, however for those drawing on their portfolios for income volatility or extended down markets can devastate a portfolio; and suspended or decreased dividends for portfolios relying on income for living expenses can force damaging asset sales. Regrettably but realistically, investor behavior in the face of high volatility is often to sell low and then repurchase high later, cutting the guts out of long-term returns.

In this Part 1, we look at the 10 US dividend focused ETFs with the highest total assets. In subsequent Parts we will look at equity REITs, pipeline/storage MLPs, and then other categories. The 10 ETFs in alphabetical order by symbol are:

- (DES) WisdomTree SmallCap Dividend
- (DLN) WisdomTree LargeCap Dividend
- (DON) WisdomTree MidCap Dividend
- (DTN) WisdomTree Dividend ex-Financials
- (DVY) iShares Select Dividend

- ([HDV](HDV)) iShares High Dividend
- (SCHD) Schwab U.S. Dividend Equity
- ([SDY](SDY)) SPDR S&P Dividend
- ([VIG](VIG)) Vanguard Dividend Apprec Idx
- ([VYM](VYM)) Vanguard High Dividend Yield Index

Clearly, different investors will perceive types and levels of risk differently, so there is no right or wrong choice based on the data alone -- but there are some strong differences in what you get from your choices. We hope this profile of the top 10 dividend ETFs helps you discern the risks and ETFs that are appropriate for you.

Figure 1: Price Probability Ranges Based On Normal Bell Curve

Return Probability Ranges Based on Normal Bell Curve Standard Deviations

(excludng Black Swan, fat tail events)

99% of expected returns

95% of expected returns

68% of expected returns

5Yr SD	ETF	-3 SD	-2 SD	-1 SD	5Yr Mean	+1 SD	+2 SD	+3 SD
19.15	DES	(28.30)	(9.15)	10.00	29.15	48.30	67.45	86.60
12.59	DLN	(15.23)	(2.64)	9.95	22.54	35.13	47.72	60.31
16.52	DON	(21.05)	(4.53)	11.99	28.51	45.03	61.55	78.07
13.44	DTN	(12.92)	0.52	13.96	27.40	40.84	54.28	67.72
12.36	DVY	(13.05)	(0.69)	11.67	24.03	36.39	48.75	61.11
-	HDV	---	---	---	---	---	---	---
-	SCHD	---	---	---	---	---	---	---
13.97	SDY	(18.26)	(4.29)	9.68	23.65	37.62	51.59	65.56
12.45	VIG	(17.00)	(4.55)	7.90	20.35	32.80	45.25	57.70
13.23	VYM	(16.21)	(2.98)	10.25	23.48	36.71	49.94	63.17

as of March 2014 — *QVM Group LC*

Based on 5-yr mean return the WisdomTree small-cap dividend fund is the best, but it also has the highest volatility, and as a small-cap fund would be expected to fare less well than large-cap funds in a strong down market.

The WisdomTree Dividends Ex-Financials fund has a strong 5-yr return and among the lowest volatilities, and thus the least severe negative 3 standard deviation downside by the normal distribution curve method. DVY has almost the same negative 3 standard deviations downside, but a few points lower 5-yr historical return.

The 3 lowest volatility ETFs are DVY, VIG and DLN.

The two highest volatility and worst negative 3 standard deviation ETFs are DES and DON.

Figure 2: Extreme Conditions Stress Tests

(click to enlarge)

portfolio or benchmark	Rates Rise - Investment Boom	Rates Rise - Inflation	Rates Rise - Fed Tapers QE	Oil Rise - Supply Shock	Japan Meltdown	Euro Meltdown	Fragile Five Collapse	Emerging Markets Hard Landing	Ukraine Hostilities	Global Stocks Crash	Global Recovery
holdings_DES	27.86	38.37	(14.99)	(12.75)	(13.21)	(32.40)	(22.29)	(22.02)	(25.67)	(41.40)	31.05
holdings_DLN	31.58	42.09	(16.23)	(15.96)	(10.24)	(35.01)	(25.78)	(24.45)	(30.07)	(46.64)	34.75
holdings_DON	30.25	42.58	(16.70)	(13.02)	(14.27)	(36.28)	(24.19)	(23.97)	(27.42)	(45.13)	33.95
holdings_DTN	30.40	42.70	(16.09)	(13.35)	(12.36)	(35.30)	(24.50)	(23.56)	(27.46)	(44.30)	33.31
holdings_DVY	25.91	33.31	(13.50)	(13.13)	(14.03)	(30.41)	(21.33)	(20.40)	(26.46)	(38.10)	28.72
holdings_HDV	27.27	34.97	(14.13)	(14.20)	(12.30)	(30.54)	(22.44)	(20.49)	(27.67)	(39.18)	29.03
holdings_SCHD	28.73	37.67	(14.05)	(15.20)	(10.40)	(31.00)	(23.35)	(22.12)	(27.59)	(42.16)	31.35
holdings_SDY	26.06	34.88	(14.35)	(13.45)	(8.43)	(30.69)	(21.70)	(20.15)	(26.65)	(38.99)	28.84
holdings_VIG	27.68	38.47	(15.17)	(13.28)	(8.40)	(32.17)	(22.82)	(21.30)	(26.24)	(41.06)	30.46
holdings_VYM	29.89	39.61	(15.75)	(14.90)	(10.89)	(33.69)	(24.41)	(23.10)	(28.75)	(44.12)	32.89
Best	31.58	42.70	(13.50)	(12.75)	(8.40)	(30.41)	(21.33)	(20.15)	(25.67)	(38.10)	34.75
Average	28.56	38.47	(15.09)	(13.92)	(11.45)	(32.75)	(23.28)	(22.15)	(27.40)	(42.11)	31.43
Worst	25.91	33.31	(16.70)	(15.96)	(14.27)	(36.28)	(25.78)	(24.45)	(30.07)	(46.64)	28.72

In this evaluation we used a portfolio stress testing tool from RiXtrema that presents several plausible extreme market conditions to see how portfolios would be expected to react. In this case, instead of testing the ETFs as entities, we tested the underlying holdings of the ETFs in their portfolio weights to project how the ETF itself might be expected to react under the specific extreme parameters of 11 stress test scenarios.

These are severe, non-normal conditions. While the specific sets of conditions may never come to pass, they represent a spread of plausible "fat tail" conditions which help us understand what could happen to the portfolio. Note that while nearly all expected outcomes are within 3 standard deviations in under the normal bell curve view of the world, the S&P 500 went out 4.5 standard deviations in 2009; and some individual stocks a good deal worse.

The bottom line is that scenario stress testing is a tangible exercise that is key to overall risk awareness. It's not just for banks, it's for your portfolio and fund choices too.

RiXtrema: *Asset correlations in times of great stress are different from those found in "normal" times. RiXtrema developed their portfolio stress testing tool by studying asset correlations with various factors as they have occurred during high stress times around the world over the past 30 years, instead of the correlations that tend to exist in "normal" times. The particular 11 extreme scenarios for this analysis are described in Figure 3 below. For those with interest in details of their methodology, they have a number of white papers on their site at www.RiXtrema.com that can take you as deep as you want to go. They provide a free license to non-professional, retail investors at that site for their basic stress testing tool.*

With the stress test approach you can take an overall view of test results across a spectrum of conditions, or you can zero in on particular types of stress conditions of most concern to you.

In the short-term to medium-term, we are most concerned about the "Ukraine Hostilities" and "Emerging Markets Hard Landing" scenarios. With that focus, DES, DVY, SDY and VIG are best for the Ukraine scenarios; and DVY, HDV, SDY and VIG are best for the Emerging Markets scenario.

Scanning the average color shading across the scenarios, the ETFs with the least red tilt and most green tilt seem to be DES, SCHD, VIG and VYM. Those with the strongest tilt to the red shading are DLN, DON, DTN.

Figure 3: Parameters Of Stress Test Scenarios

(click to enlarge)

Scenarios Used In This Stress Test					
Rates Rise-Investment Boom	US Treas 30 Yr UP 200 bpt	JPY UP 10%			
Rates Rise-Inflation	US Treas 30 Yr UP 300 bpt	Gold UP 70%			
Rates Rise-Fed Tapers QE	US Treas 30Yr UP150 bpt	Home Eqty AAA Spreads UP 300 bpt	Gold DN 20%	S&P 500 DN 15%	
Oil Rise- Supply Shock	Oil UP 50%	Gold UP 30%	Israel Eqty DN 25%	S&P 500 DN 10%	
Japan Meltdown	Japan Treas 30 Yr UP 150 bpt	Japan Eqty DN 25%	Japan Corp Spreads UP 200 bpt	S&P 500 DN 15%	
Euro Meltdown	Euro DN 40%	US Treas 30 Yr DN 100 bpt			
Fragile Five Collapse	Brazil Eqty DN 25%	India Eqty DN 25%	Indonesia Eqty DN42%	S. Africa Eqty DN36%	Turkety Eqty DN 36%
Emerging Markets Hard Landing	China Eqty DN 30%	India Eqty DN 30%	Brazil Eqty DN 25%		
Ukraine Hostilities	Russian Ruble DN 25%	Russian Eqty DN 40%	Poland Eqty DN 25%	Oil UP 25%	
Global Stocks Crash	S&P 500 DN 35%	China Eqty DN 45%			
Global Recovery	China Eqty UP 30%	CCC SpreadsDN 250 bpt	S&P 500 UP30%		

Figure 4: Income Dividend Distributions Pattern

(click to enlarge)

	Income Distributions (cap gains not included)					
ETF	**$ 2007**	**$ 2010**	**$ 2013**	**% 2007 to 2010**	**% 2010 to 2013**	**% 2007 to 2013**
DES	$1.8368	$1.6920	$1.6567	-7.88%	-2.09%	-9.80%
DLN	$1.5615	$1.2393	$1.6002	-20.63%	29.12%	2.48%
DON	$1.5778	$1.4354	$1.6974	-9.03%	18.25%	7.58%
DTN	$1.8871	$1.6110	$1.9683	-14.63%	22.18%	4.30%
DVY	$2.3661	$1.6608	$2.1859	-29.81%	31.62%	-7.62%
HDV	---	---	$2.2305	n/a	n/a	n/a
SCHD	---	---	$0.9038	n/a	n/a	n/a
SDY	$1.9688	$1.6386	$1.6405	-16.77%	0.12%	-16.68%
VIG	$0.8730	$1.0480	$1.3880	20.05%	32.44%	58.99%
VYM	$1.3570	$1.0910	$1.7490	-19.60%	60.31%	28.89%

For all stocks and funds generally, and for dividend focused stocks in particular, a pattern of rising (at least not declining) dividends is key. In Figure 4, we compare the 2007 income distribution (excludes any gains distributions) to the 2010 distributions; and the 2010 distributions to the 2013 distributions.

Only one of the ETFs showed income distribution growth over both 3-year periods. That was VIG. And, only one had negative growth over both 3-year periods. That was DES. The second best ETF taking both periods separately and the 6-yr span of both periods, was VYM. The second worst was SDY.

Figure 5: Capture Ratios, Sharpe Ratios and Sortino Ratios.

(click to enlarge)

Ticker	Upside Capture Ratio 3 Yr	Downside Capture Ratio 3 Yr	Upside Capture Ratio 5 Yr	Downside Capture Ratio 5 Yr	Sharpe Ratio 3 Yr	Sharpe Ratio 5 Yr	Sortino Ratio 3 Yr	Sortino Ratio 5 Yr
DES	108	107	120	112	1.08	1.44	1.97	3.24
DLN	87	73	90	76	1.37	1.68	2.60	3.58
DON	100	90	112	95	1.20	1.61	2.20	3.58
DTN	86	61	98	64	1.51	1.88	2.92	4.65
DVY	81	47	87	58	1.56	1.81	3.23	4.16
HDV	-	-	-	-	-	-	-	-
SCHD	-	-	-	-	-	-	-	-
SDY	86	68	91	71	1.34	1.59	2.58	3.78
VIG	90	87	87	83	1.15	1.55	2.02	2.96
VYM	90	71	94	80	1.43	1.67	2.72	3.50

Capture Ratio in this case indicates how much of the monthly percentage up movements by the S&P 500 were captured by the ETF and how much of the monthly percentage down movements were captured. You want a larger upside capture than downside capture. All of the ETFs met that goal over 3 and 5 years. The best 3 were DVY, DTN, and SDY. The worst 3 were VIG, DES and DON (but DON was a lot better than VIG and DES).

The **Sharpe Ratio** basically measures how much volatility you had to endure to get the return you got (adjusted for the risk-free rate which is minimal these days). The strongest over combined 3 and 5 years were DTN, DVY, VYM and DLN. The weakest was DES, but it still had a good number.

The **Sortino Ratio** is similar to the Sharpe Ratio, but ignores upside volatility and only measures downside volatility against the achieved return. The 2 best ratios over 3 and 5 years combined were DTN and DVY. The worst was DES. All were good.

Figure 6: Yield, Valuation Multiples, Earnings Growth and Leverage

(click to enlarge)

Ticker	Yield 12 Mo	P/B Ratio	P/S Ratio	P/C Ratio	P/E Ratio	Earnings Growth 3 Yr	P/E over EGR	Debt % Total Cap TTM
DES	2.36	1.96	1.01	9.40	19.67	11.50	1.71	40.37
DLN	2.46	2.52	1.62	9.54	16.44	11.24	1.46	38.83
DON	2.26	2.31	1.34	9.51	20.12	14.28	1.41	43.37
DTN	2.87	2.39	1.54	8.46	17.35	7.92	2.19	44.37
DVY	3.04	2.10	1.36	8.40	17.00	3.97	4.28	44.96
HDV	3.20	2.55	1.96	9.38	16.15	5.27	3.06	39.44
SCHD	2.48	3.36	1.68	11.65	17.37	5.29	3.28	33.27
SDY	2.21	2.65	1.47	11.23	19.74	6.70	2.95	36.04
VIG	1.85	3.19	1.40	11.87	16.96	14.48	1.17	30.32
VYM	2.82	2.41	1.57	9.29	16.58	10.42	1.59	39.34

- **Yield:** DVY and HDV have the highest trailing yield, and VIG has the lowest (barely higher than the S&P 500 ETFs).
- **P/B:** DES and DVY have the lowest price-to-book ratios, and SCHD and VIG have the highest
- **P/S:** This is probably the least informative for this group of ETFs and is better left for intra-industry comparisons.
- **P/E ttm:** DLN and HDV have the lowest P/E ratios; and DON, SDY and DES have the highest.
- **3-Yr Earnings Growth Rate:** VIG and DON have the highest growth rate; while DVY and HDV have the lowest.
- **P/E Over Earnings Growth Rate:** VIG has the best (lowest) PEG at 1.17x. Reasonable valuation is often spoken of as less than 2x. Those with historical PEGs over 2x are DVY, SCHD, SDY, and DTN.
- **Debt to Total Capital:** VIG has the lowest leverage. DON, DTN and DVY have the highest leverage.

The remaining figures are ancillary information that may figure into your risk or opportunity calculus, but are presented here more for general information to fill out the profile on the 10 dividend ETFs.

Figure 7: Total Returns

(click to enlarge)

Ticker	Mkt Tot Ret YTD (Current)	Mkt Tot Ret 1 Mo (Current)	Mkt Tot Ret 3 Mo (Current)	Mkt Tot Ret 6 Mo (Current)	Mkt Tot Ret 12 Mo (Current)	Mkt Tot Ret 3 Yr (Current)	Mkt Tot Ret 5 Yr (Current)
DES	0.13	2.72	4.29	11.44	22.35	17.10	29.28
DLN	(0.70)	0.27	3.09	8.01	15.47	14.91	21.69
DON	2.13	1.68	6.04	11.35	20.44	16.50	28.47
DTN	0.12	0.97	4.23	9.00	15.64	16.03	26.68
DVY	1.16	1.63	4.60	10.73	18.96	16.24	24.24
HDV	(0.50)	0.71	2.46	5.14	11.42	-	-
SCHD	(1.42)	0.64	2.44	7.49	18.08	-	-
SDY	(0.10)	0.86	3.34	8.20	15.39	14.96	22.61
VIG	(1.08)	1.16	3.10	7.44	15.66	13.60	19.91
VYM	(1.16)	0.24	2.55	7.61	15.84	15.77	22.52

DES and DON, the small-cap and mid-cap dividend ETFs have the best 5-year record, which would be expected in a bull phase, although they would be expected to lag in a bear market. DES has also been the strongest over 3 years, 1 year and 6 months; and is showing up well for 3 months 1 month and YTD, although not on top in each case.

VIG was the laggard over 5 and 3 years, and has had a low ranking over the other periods. HDV is the laggard over 1 year and 6 months.

Figure 8: Composition By Market-Cap and Style

(click to enlarge)

Ticker	% Large Value	% Large Blend	% Large Growth	% Mid Value	% Mid Blend	% Mid Growth	% Small Value	% Small Blend	% Small Growth
DES	0	0	0	1	0	0	54	34	10
DLN	44	36	15	3	1	1	0	0	0
DON	0	0	1	44	33	9	6	4	2
DTN	39	27	5	19	9	1	0	0	0
DVY	31	13	2	31	7	0	14	2	0
HDV	53	38	0	5	2	0	1	0	0
SCHD	26	53	14	4	2	1	0	0	0
SDY	15	31	11	17	17	2	3	3	0
VIG	20	40	23	4	6	4	1	1	0
VYM	50	30	7	7	3	0	2	1	0

The large-cap stocks are generally expected to do better in a down market than the small-cap and mid-cap stocks

Figure 9: Composition by Sector

(click to enlarge)

Ticker	Basic Materials	Energy	Industrials	Financial Services	Consumer Cyclical	Technology	Consumer Defensive	Communication Services	Healthcare	Utilities	Real Estate
DES	8.32	2.34	17.04	11.60	11.32	9.96	6.28	2.02	4.08	13.03	14.01
DLN	3.43	10.67	10.78	10.97	7.15	14.90	15.13	6.21	11.99	5.68	3.09
DON	7.36	5.55	13.22	9.75	16.10	6.59	6.93	3.27	2.29	13.66	15.29
DTN	8.61	12.30	11.20	0.96	9.93	9.17	14.10	6.04	10.23	17.44	0.02
DVY	1.61	8.17	14.31	9.07	8.94	2.71	13.48	2.27	4.32	35.11	0.00
HDV	2.50	10.99	3.72	1.72	4.10	7.67	26.50	9.47	18.76	14.56	0.00
SCHD	2.72	12.20	22.16	2.19	9.03	11.54	25.61	0.53	12.26	1.76	0.00
SDY	8.17	4.32	14.78	12.99	9.73	2.76	18.58	3.36	7.90	9.63	7.77
VIG	8.30	12.68	22.50	6.83	11.73	4.04	24.15	0.12	8.93	0.72	0.00
VYM	3.73	12.36	14.57	12.92	5.78	9.74	15.64	5.37	11.99	7.91	0.00

Figure 10: Expense Ratio, Inception Date, Number of Holding & Assets.

(click to enlarge)

Ticker	Morningstar Category	Prospectus Net Expense Ratio	Fund Incept Date	Number of Stocks	Total Assets $MM
DES	US ETF Small Value	0.38	06/16/06	1072	1,037
DLN	US ETF Large Value	0.28	06/16/06	300	1,772
DON	US ETF Mid-Cap Value	0.38	06/16/06	425	968
DTN	US ETF Large Value	0.38	06/16/06	84	1,111
DVY	US ETF Mid-Cap Value	0.40	11/03/03	100	12,889
HDV	US ETF Large Value	0.40	03/29/11	73	3,447
SCHD	US ETF Large Blend	0.07	10/20/11	147	1,591
SDY	US ETF Large Value	0.35	11/08/05	96	12,309
VIG	US ETF Large Blend	0.10	04/21/06	146	18,598
VYM	US ETF Large Value	0.10	11/10/06	379	7,404

VIG and VYM are the low-cost ETFs. DVY and HDV are the highest costs ETFs. All of the funds have at least 5 years of history expect for SCHD and HDV. They all have enough positions to be diversified, if in fact they have not over concentrated in certain industries.

The largest 4 ETFs by assets in descending order are VIG, DVY, SDY and VYM.

We have positions in VIG, SDY and VYM, but are considering eliminating SDY, and have various positions in individual dividend stocks, which tend to be widely held among dividend funds.

Disclosure: QVM has positions in VIG, SDY, VYM as of the creation date of this article (March 16, 2014). We certify that except as cited herein, this is our work product. We received no compensation or other inducement from any party to produce this article, but are compensated retroactively by Seeking Alpha based on readership of this specific article.