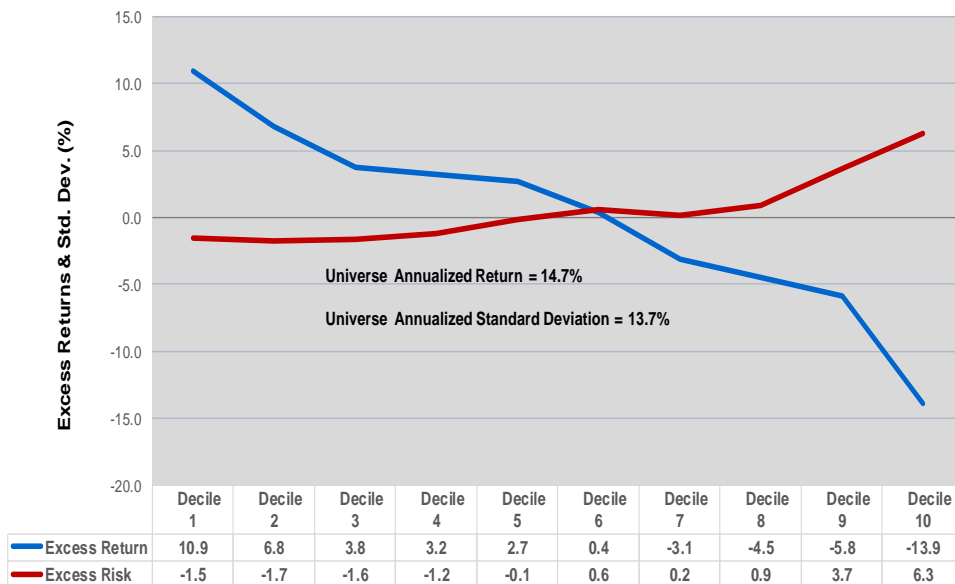# Value/Momentum Model (VMO)

The Ford Value/Momentum Model was introduced in 1998 and enhanced to the current six factor model in March 1999. This model combines three successful styles of stock selection, earnings momentum, relative value and price momentum. The earnings momentum portion of the model includes historical data as measured by Ford's Earnings Momentum Model, and earnings expectations represented by estimate revision and surprise. These earnings momentum factors are combined with Ford's Operating Earnings Yield as a value measure and Ford's Price Momentum Model as a shorter term entry and exit indicator, to produce a model that delivers exceptional performance. The Value/Momentum Model is presented as a percentile of the Ford Universe of stocks with 100 as best. Ford considers a VMO score of 70 or higher as a buy candidate and 30 or lower a sell candidate.

Ford Value/Momentum Model (VMO)
Decile Excess Returns & Std. Dev. (%) vs. Ford Universe
12/11 to 12/16

Universe Annualized Return = 14.7%

Universe Annualized Standard Deviation = 13.7%

	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
Excess Return	10.9	6.8	3.8	3.2	2.7	0.4	-3.1	-4.5	-5.8	-13.9
Excess Risk	-1.5	-1.7	-1.6	-1.2	-0.1	0.6	0.2	0.9	3.7	6.3

Top Decile/Group Ford Stock Selection Models
12/11 to 12/16

VMO Excess Return Top Decile vs. Ford Universe (%)	
2012	13.2
2013	8.6
2014	11.4
2015	10.2
2016	10.3
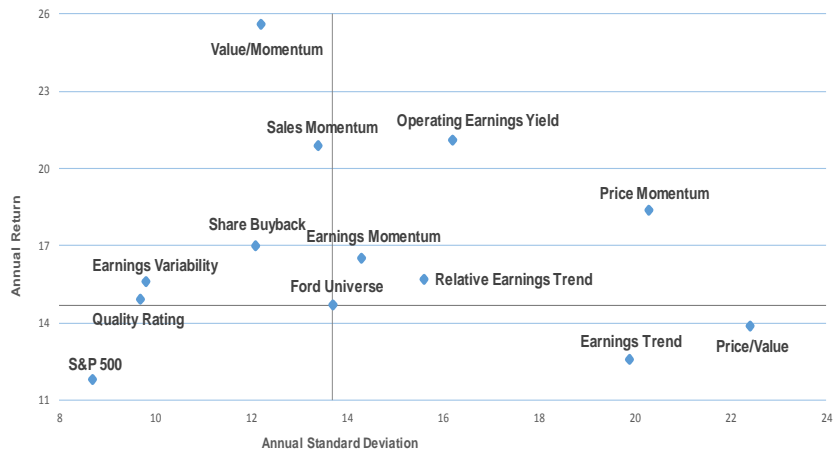
Performance is based on ranking the Ford Universe from best to worst for the model shown and dividing it into 10 equal-sized groups each month. The group returns represent equal–dollar investments in each stock each month, with monthly total returns linked to create annual and annualized results. Total returns, which sum month-end price changes and 1/12 of companies' indicated annual dividend rates, exclude transaction costs and management fees. The Ford Universe had had 4011 companies at the end of 2016.

Quantitative model results are affected by market environment and are based on historical financial data. Certain material information for a company may not be reflected in models presented. The performance shown is based on large portfolios and may not be effective on every security. There is no assurance that future results will duplicate past results.

VMO Decile Performance on Capitalization Sectors

Average Annual Returns (%) 12/11-12/16

Deciles	1	2	3	4	5	6	7	8	9	10	Cap Univ.
Large Cap	16.8	16.7	16.3	15.8	13.1	14.5	14.4	12.2	7.3	6.6	13.4
Standard Deviation	11.5	11.2	11.2	11.3	10.7	11.7	11.2	12.2	12.6	14.3	11.4
Mid Cap	19.2	17.9	17.9	16.5	19.1	14.3	14.7	12.3	14.1	10.2	15.7
Standard Deviation	14.7	14.1	14.3	13.8	15.0	14.9	14.6	13.9	15.5	19.6	14.5
Small Cap	25.2	24.3	21.8	19.1	17.8	12.0	8.3	10.4	4.0	7.0	14.9
Standard Deviation	15.2	15.5	16.2	15.7	16.3	16.9	17.4	18.1	19.8	22.8	16.7

Large, Mid and Small Cap constituents include the top 1000, second 1000, and third 1000 companies in the Ford universe of stocks when ranked by market capitalization.

VMO Top Decile Annual Excess Return by Industry Group 12/11- 12/16
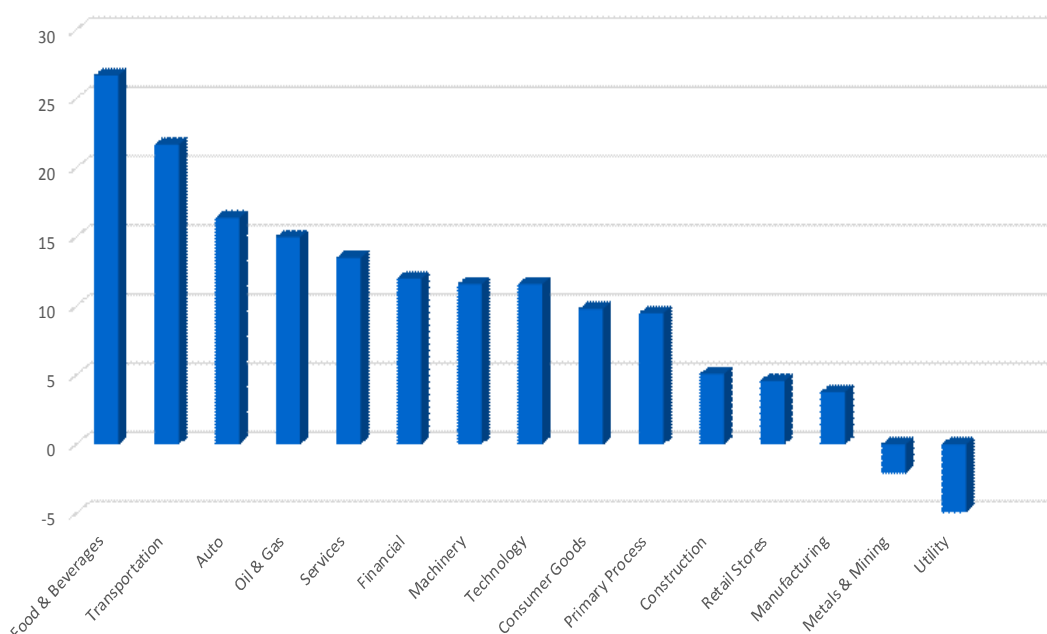
Correlation Coefficients 12/11 - 12/16
Ford Proprietary Models

	PVA	OEY	EMO	PRM	VMO	SHB	QTY	SMO	SED	SDR	EDV
Price/Value (PVA)	1.000	0.910	0.865	0.889	0.825	0.756	0.507	0.790	0.892	0.886	0.631
Operating Earnings Yield (OEY)	0.910	1.000	0.926	0.874	0.944	0.911	0.697	0.882	0.866	0.918	0.816
Earnings Momentum (EMO)	0.865	0.926	1.000	0.924	0.954	0.924	0.700	0.961	0.935	0.970	0.868
Price Momentum (PRM)	0.889	0.874	0.924	1.000	0.891	0.805	0.613	0.901	0.940	0.926	0.754
Value/ Momentum (VMO)	0.825	0.944	0.954	0.891	1.000	0.949	0.773	0.940	0.867	0.920	0.914
Share Buyback (SHB)	0.756	0.911	0.924	0.805	0.949	1.000	0.805	0.901	0.806	0.882	0.925
Quality Rating (QTY)	0.507	0.697	0.700	0.613	0.773	0.805	1.000	0.696	0.534	0.655	0.863
Sales Momentun (SMO)	0.790	0.882	0.961	0.901	0.940	0.901	0.696	1.000	0.900	0.930	0.891
Earnings Trend (SED)	0.892	0.866	0.935	0.940	0.867	0.806	0.534	0.900	1.000	0.955	0.713
Relative Earnings Trend (SDR)	0.886	0.918	0.970	0.926	0.920	0.882	0.655	0.930	0.955	1.000	0.814
Earnings Variability (EDV)	0.631	0.816	0.868	0.754	0.914	0.925	0.863	0.891	0.713	0.814	1.000