



&



Using **ZRS** and the **Zacks Valuation Model** to identify factors impacting equity valuations in 3 minutes or less

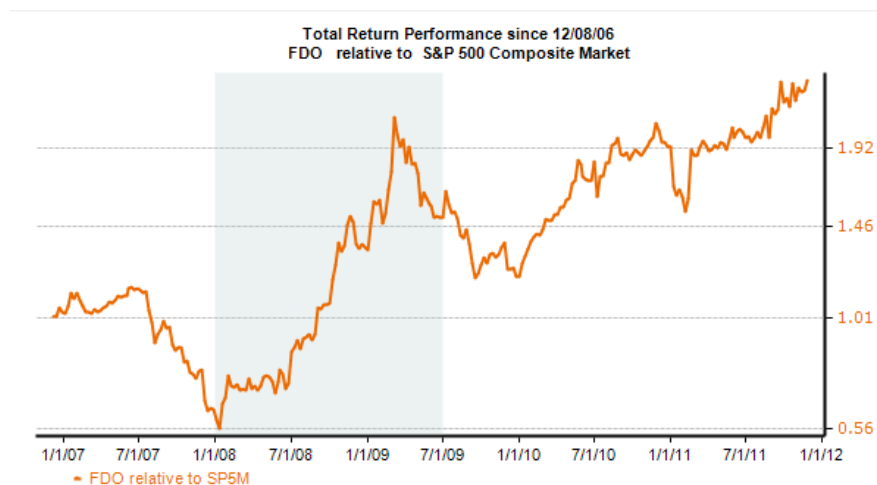
**FAMILY DOLLAR (FDO)**

# Family Dollar: Is this Recessionary Outperformer Still an Attractive Stock?

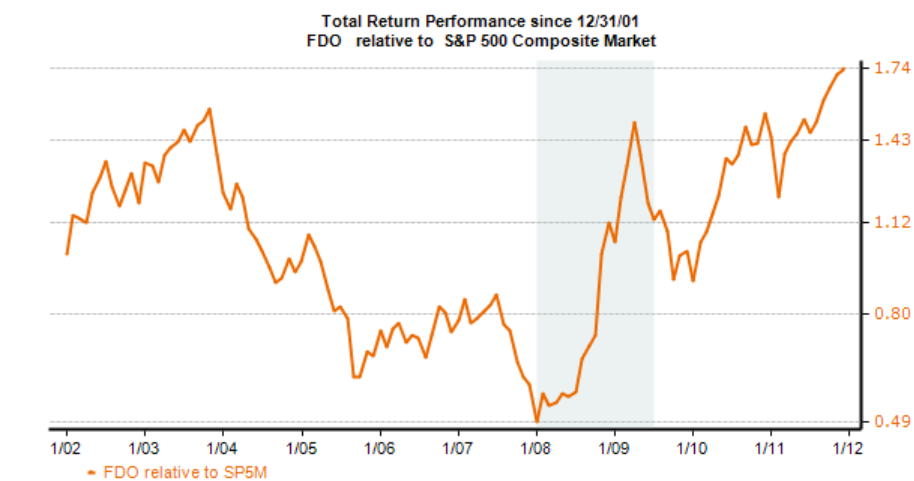
Headquartered in North Carolina, Family Dollar Stores, Inc. (Ticker: FDO) operates a chain of self-service retail discount stores in the United States. It offers general merchandise in four different categories, which is generally priced from under \$1 to \$10.

Since the onset of the financial crisis that started in late 2008, most retail sector stocks prices have been eviscerated by emergence of a thriftier consumer base. However, the lone glimmer of hope within the retail space, over that time, has been the impressive growth of discount retailers like Family Dollar.

Using **Zacks Research System** (ZRS), one can compare the cumulative relative performance of Family Dollar during the past 5 and 10 years versus the S&P 500:

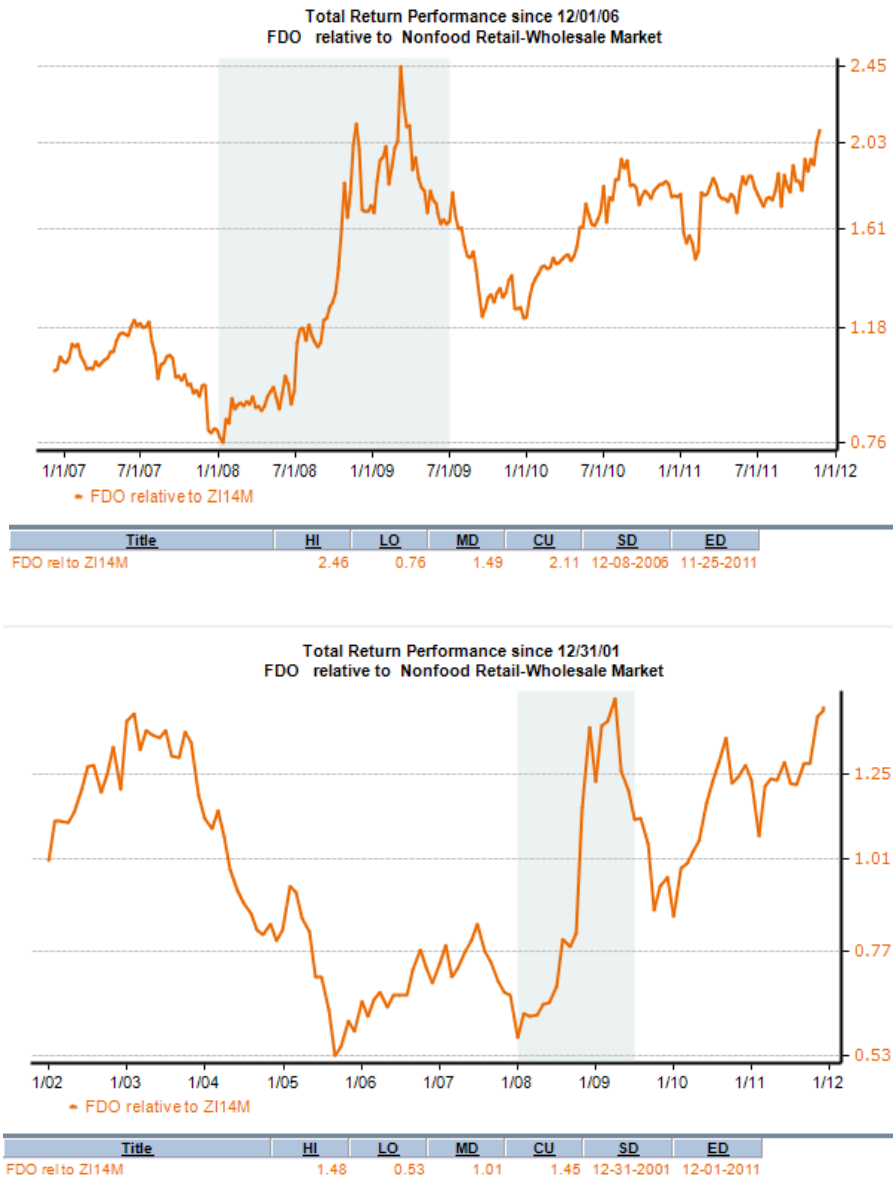


Title	HI	LO	MD	CU	SD	ED
FDO rel to SP5M	2.37	0.56	1.42	2.37	12-08-2006	11-25-2011



Title	HI	LO	MD	CU	SD	ED
FDO rel to SP5M	1.74	0.48	1.07	1.74	12-31-2001	12-01-2011

In addition, below is relative cumulative performance of Family Dollar versus its Zacks industry benchmark, the Nonfood Retail -Wholesale Market, on a 5 and 10 year basis.

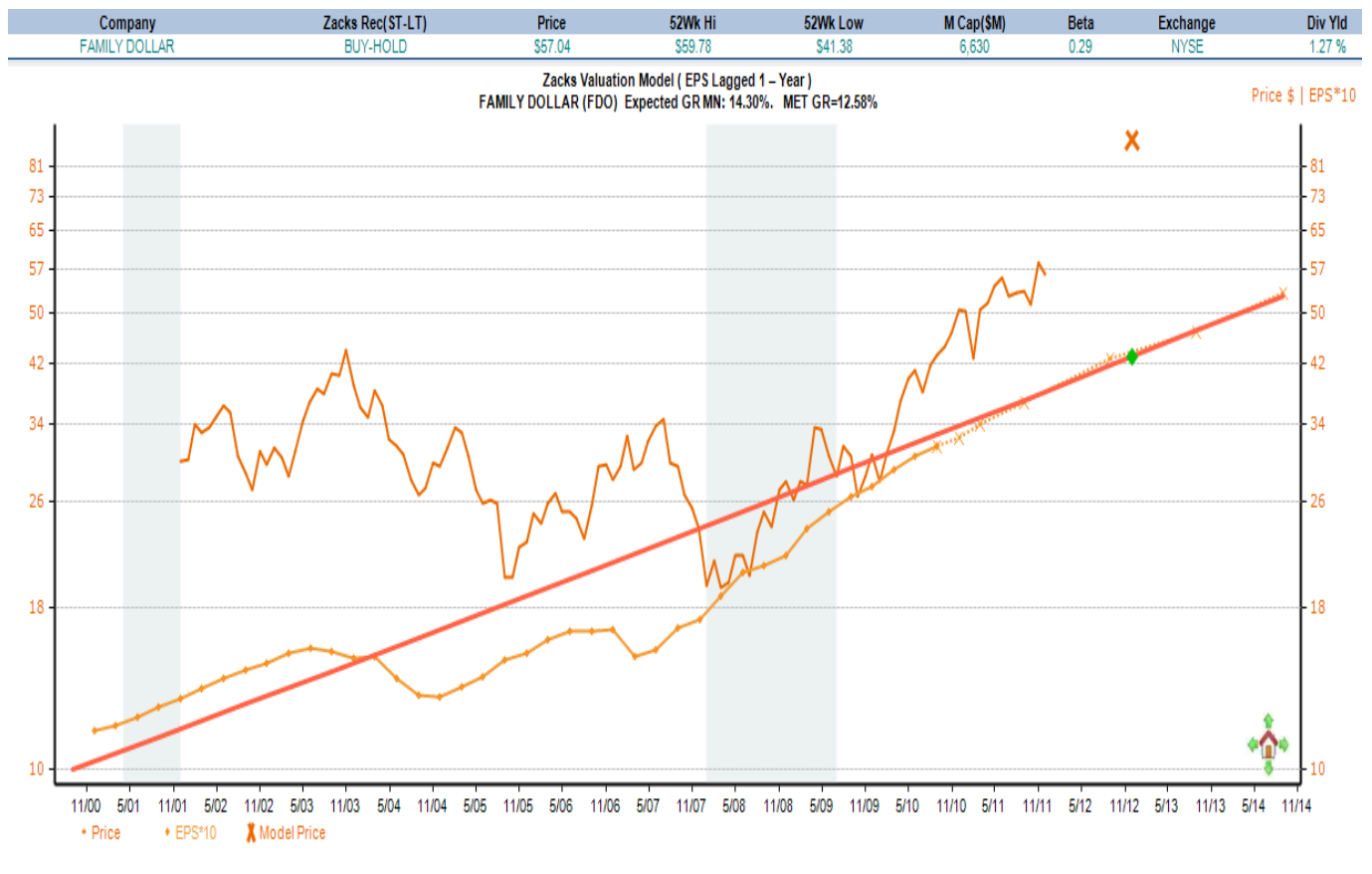


As one can see from the graphs above, Family Dollar has been quite the outperformer in an otherwise bleak period for equities, as judge by the S&P 500 index. In addition, looking solely at the stock's stellar performance versus its industry, it may also indicate that Family Dollar has emerged as a discount retailing leader. Though its relative performance over the past 10 years has been strong, a fact emerges from the graph, which demonstrates that the majority of its excess returns versus the S&P 500 and industry peers come during the most recent recession (i.e. past 5 years). Specifically, its relative returns over the past 5 years..... 237% and 211%, respectively — are quite striking.

So based on its past outperformance, can we expect Family Dollar to continue to produce such stellar returns in the future? Is it fairly priced? The following commentary will explain how to uncover these answers and others using **Zacks Investment Research System (ZRS)** and the **Zacks Valuation Model (ZVM)**.

The Zacks Valuation Model is a visually-oriented, five-factor discounted earnings model. The model uses objective default model inputs that are derived from consensus sell-side forecasts. For example, the model allows you to explore and project the following information to help determine equity valuations and possible mispricing:

- 1) Calculate fair value price/share
- 2) Project 12-month forward target price/share
- 3) Determine market-implied earnings growth rate
- 4) Generate model forward P/E multiples
- 5) Factor in changing macroeconomic conditions (i.e. interest rate risk or top-down changes in earnings growth rates) that affect individual equity valuations



Zacks Valuation Model				Zacks Consensus Estimates			Model Earnings Tendency		
	Current	House	1-Year	2012	2013	2014	FYE: August		
Risk Free Rate (AAA)	3.85%	3.85 %	3.85%	Mean Estimate	3.65	4.23	4.65	2010	2.90
Equity Risk Premium	6.26%	6.26 %	6.26%	Change Y/Y	17%	16%	10%	2011	3.27
Company Specific Risk	0.00%	0.00 %	0.00%	High	3.80	4.74	4.65	2012	3.68
Total Equity Discount Rate	10.11%		10.11%	Low	3.53	3.95	4.65	2013	4.14
Actual PE – 12M	14.89		13.22	Total	18	15	1	2014	4.66
Model PE	20.88		20.88	#Up (4 weeks)	1	0	0	2015	5.25
Model Price	79.24		89.16 ✘	#Down (4 weeks)	0	0	0	2016	5.91
Model EPS F12M	3.79		4.27 ✔					2017	6.65
Model Return	40.29%		59.13%	PE Intraday	15.6	13.5	12.3	2018	7.49

The slope of the Model Earnings Trendline above (solid orange line) determines the growth rate of forward earnings, while the fulcrum of the line is the 1-year forward earnings per share target. The ZVM model defines the slope of the trendline as one standard deviation below the expected long-term (3-5 years) earnings growth rate, taken as an average of analyst expectations that cover the company.

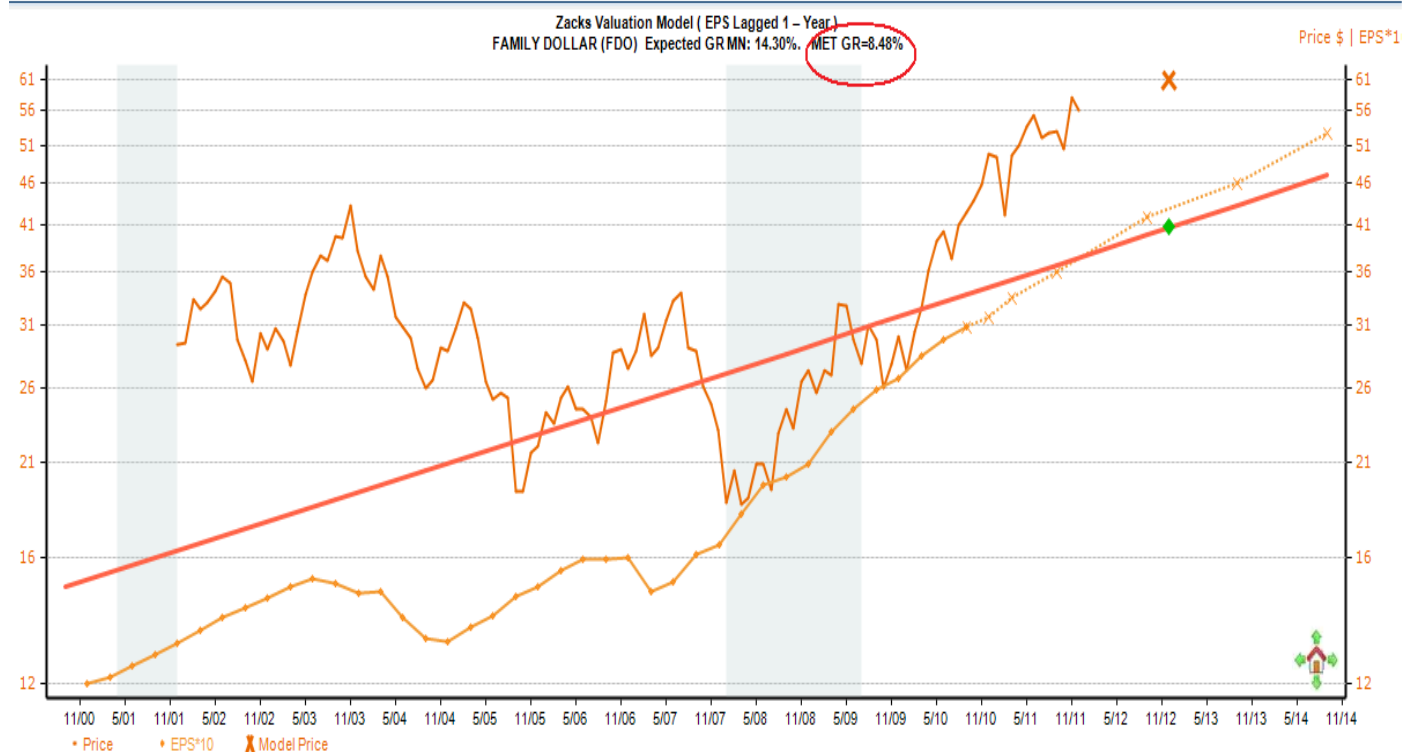
The above graph illustrates the basic model inputs (risk free rate, equity risk premium, company specific risk, EPS F12M and consensus growth rate mean) and outputs (Model PE, Model Return, Model Price and Model EPS F12M) from ZVM. Based on the various outputs while using the default growth rate of 12.58%, we can see that Family Dollar is undervalued by virtue of its current Model Return of 40.29%.

We can also take a different approach and ask ourselves the next logical question: based on a current Model Return of 40.29%, what level of earnings growth are investors pricing Family Dollar at today? The current Model Return of 40.29% is effectively signaling that the investment community is not paying 12.58% 3-5 year forecast growth but rather something much less. The ZVM can be used to calculate the market-implied earnings growth rate.

As one of the inputs into ZVM, the Model Earnings Trend Growth Rate (i.e. MET GR in image above or below) is the slope of the Model Earnings Trend Line. As stated previously, the default growth rate input is calculated from the long-term consensus growth rate estimate minus the standard deviation of the growth rate estimates amongst analysts. So in essence, the Model Earnings Trend Growth Rate is a conservative estimate of analysts' estimates.

So instead of using the default growth rate input, let's assume the market is currently efficient, hold all other inputs constant and adjust Model Earnings Trend Growth Rate to arrive at a Current Model Return of roughly 0%. This will allow us to view the market's earnings growth rate expectation based on the stock's current price:

Company	Zacks Rec(ST-LT)	Price	52Wk Hi	52Wk Low	M Cap(\$M)	Beta	Exchange	Div Yld
FAMILY DOLLAR	BUY-HOLD	\$57.04	\$59.78	\$41.38	6,630	0.29	NYSE	1.27 %



Zacks Valuation Model			Zacks Consensus Estimates			Model Earnings Tendency			
	Current	House	1-Year	2012	2013	2014	FYE: August		
Risk Free Rate (AAA)	3.85%	3.85 %	3.85%	Mean Estimate	3.65	4.23	4.65	2010	3.16
Equity Risk Premium	6.26%	6.26 %	6.26%	Change Y/Y	17%	16%	10%	2011	3.42
Company Specific Risk	0.00%	0.00 %	0.00%	High	3.80	4.74	4.65	2012	3.71
Total Equity Discount Rate	10.11%		10.11%	Low	3.53	3.95	4.65	2013	4.03
Actual PE - 12M	14.89		13.72	Total	18	15	1	2014	4.37
Model PE	14.91		14.91	#Up (4 weeks)	1	0	0	2015	4.74
Model Price	56.56		61.43 ✕	#Down (4 weeks)	0	0	0	2016	5.14
Model EPS F12M	3.79		4.12 *					2017	5.58
Model Return	0.14%		10.04%	PE Intraday	15.6	13.5	12.3	2018	6.05

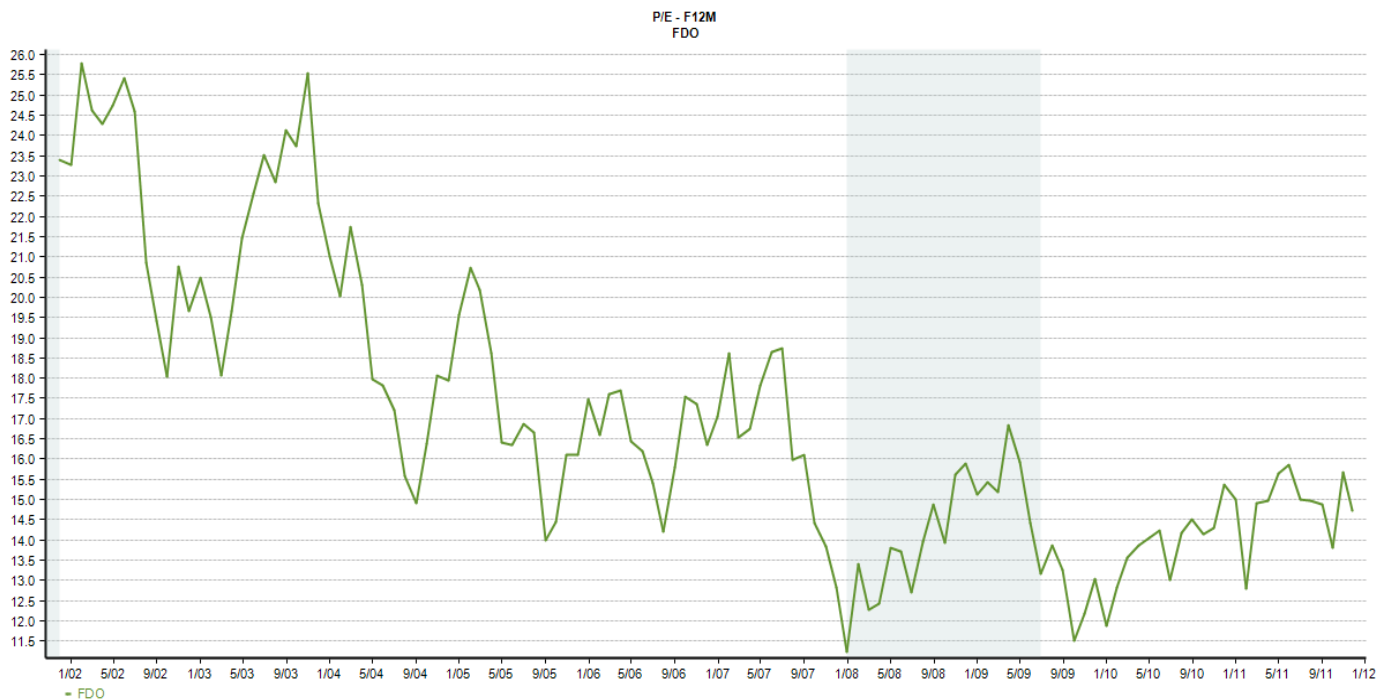
Save Model Calculate User Model

Note that when the current Model Return is at or near zero, the Model PE equals the Actual PE and Model Price equals the Actual Price. At this point, given the model input assumptions, one can assume that the broad market has placed a fair value on Family Dollar at an 8.4% annual forecasted earnings growth for the next 3-5 years.

By taking the view that the market is efficient, we assume that all information and expectations are accurately reflected in stock prices. As we can see, there is a perceived difference between how the market is currently pricing Family Dollar stock and its earnings growth relative to the ZVM market implied valuation.

So prior to making any buy or sell decision on the information provided by Zacks Valuation Model alone, can we find evidence which supports the consensus analyst earnings growth estimate of 12.58%? Or can we find more evidence to justify the market's expectation of 8.4%?

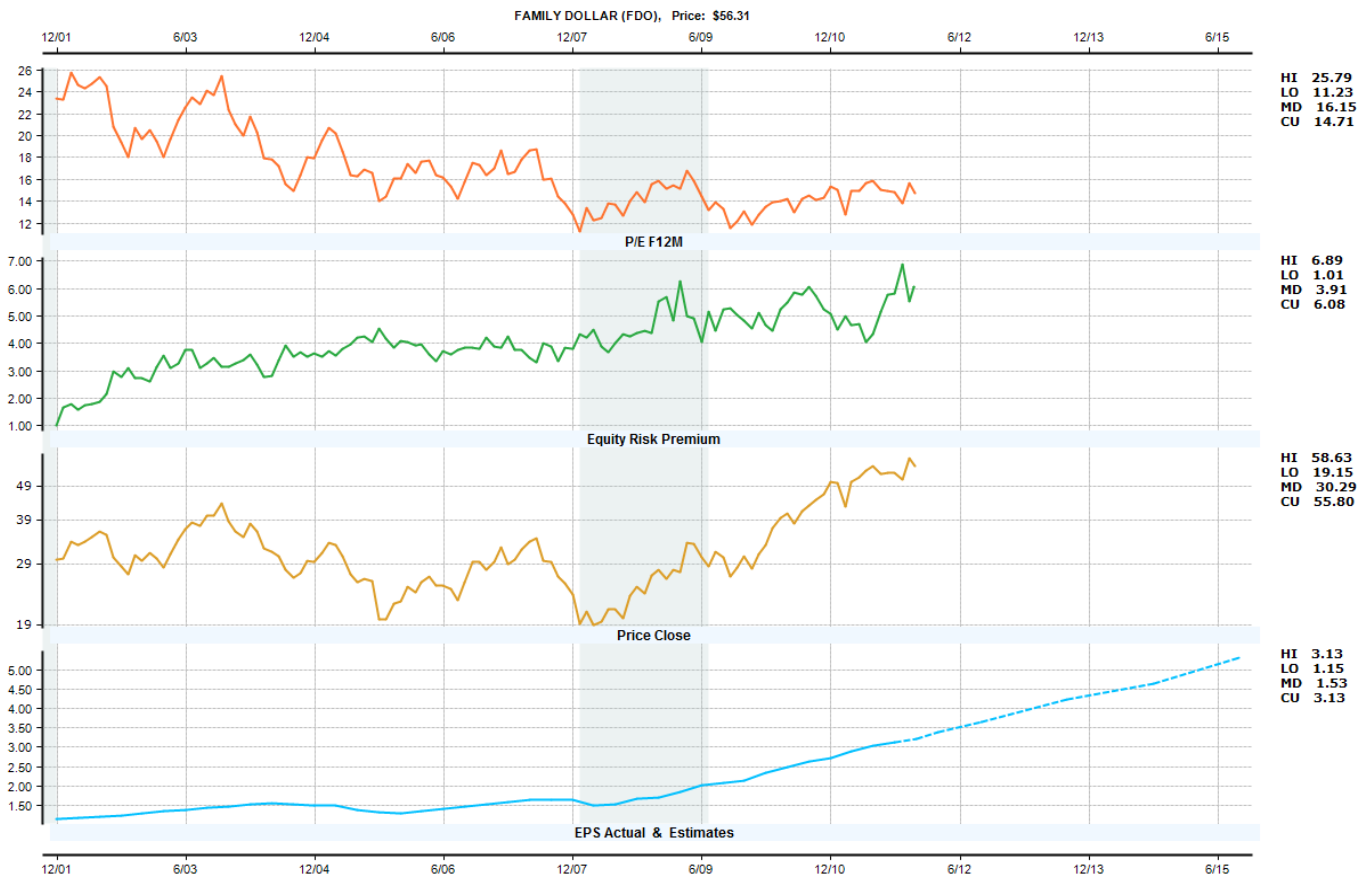
In order to determine the veracity of the valuations, its inputs and earnings growth forecasts, let's start by taking a look at a historical chart of forward P/E relative to the Model PE, predicted by ZVM, for Family Dollar:



Observing ZVM's Model PE of 20.88 based on default inputs, relative to past P/E multiples, it is clear that this valuation level was achieved during the past decade. Though past evidence alone does not confirm the accuracy of ZVM's prediction, it does provide us a historical basis to examine under what conditions had the market priced a comparable PE multiple in the past.

Upon further inspection, Family Dollar has exhibited considerable P/E multiple compression as we move forward through the time period. Considering the recent market turmoil, it appears that Family Dollar's P/E has stabilized and showcased less volatility in the past 4 years than it exhibited over the previous 5-6 years prior to the economic downturn. Why is this?

To investigate, let's first examine more closely how Family Dollar's P/E multiple was affected by macroeconomic trends through the use of the **1-4 Panel Custom Charts** within ZRS:

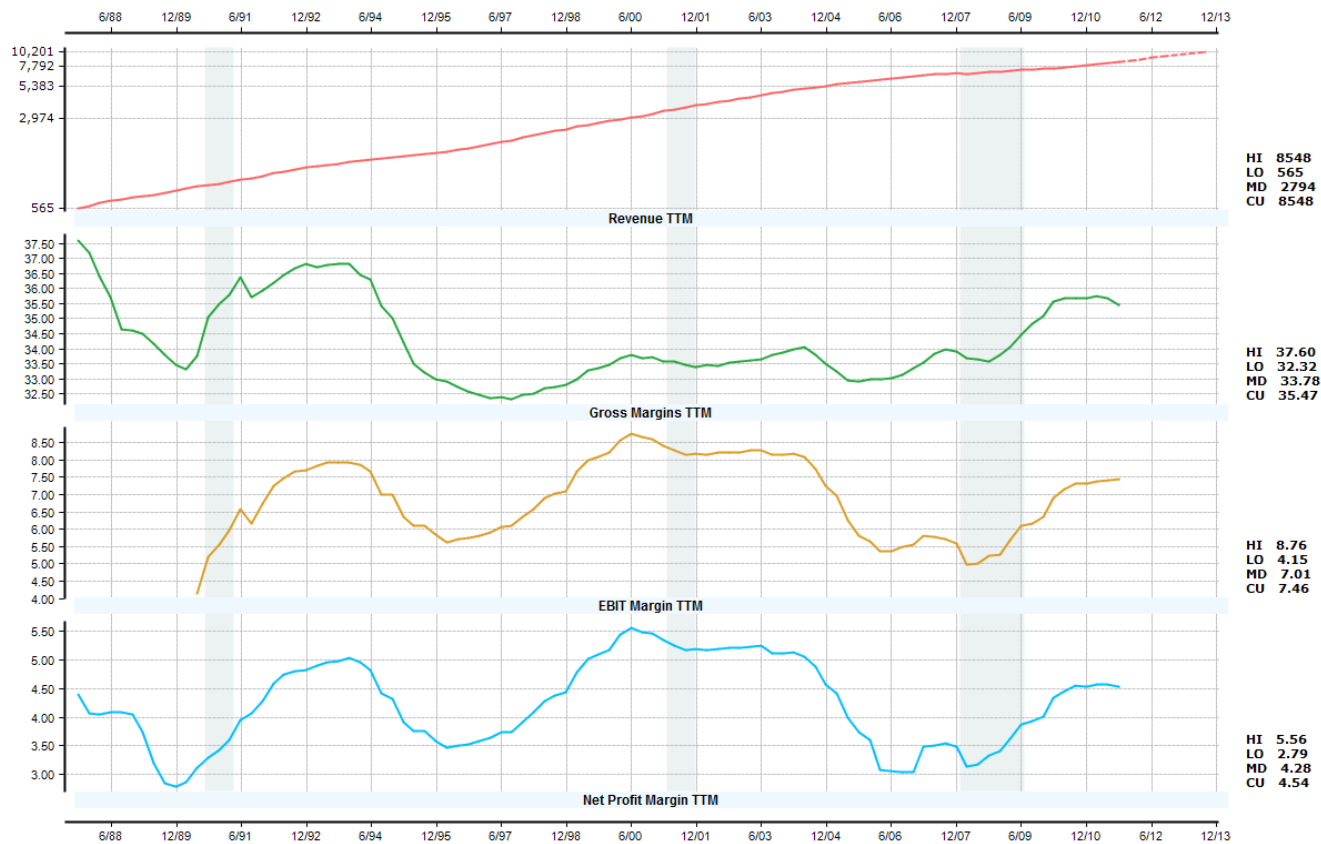


As we can see from the four-panel chart above, the equity risk premium increased over the decade due to heightened risk aversion and decrease in interest rates. Invariably, a decrease in the P/E multiple followed as its price decreased and its EPS growth slowed over the first half of the decade. Yet looking at the second half of this timeframe, it appears that Family Dollar's P/E remained quite buoyant in the face of an increasing equity risk premium due to the worst economic downturn since the Great Depression. Though confronted with a higher equity market risk, its valuation reflected the strong EPS growth over that period, which resulted in a more stable P/E multiple.

Accounting for Family Dollar's business strategy, it is not surprising to see its P/E multiple display resilience in the face of an economic downturn. One would expect consumers to become more price conscious, thus benefiting deep discount retailers like Family Dollar.

Since the Federal Reserve has publicly stated that it will maintain an accommodative monetary policy in the face of a protracted recovery, it is reasonable to assume that Family Dollar's strong earnings growth could continue over the next 3-5 years despite an elevated equity risk premium. The discount retailing sector stands to gain more price-sensitive customers as result of an indebted population that is deleveraging their personal balance sheets.

At this point, let's drill down to more company-specific metrics to further examine whether its valuation and forecasted earnings growth are justifiable by using the customized **Margin View charts** in ZRS.



Since margins are cyclical over the long-term, most analysis of these trends should be done by viewing at least 20 years of data. In the four-panel chart above, we have defined the period of analysis to be 25 years so that one can take a look at what past and recent margin trends tell us about Family Dollar.

A quick look at the chart indicates that the three margins above (i.e. gross margin, EBIT margin and net profit margin) are approaching past cyclical highs. So apart from systemic shift in industry trends, supply chains or consumer tastes, one would expect to see margin compression in the future. The logical conclusion is that the market has correctly priced in this information, as seen through its lower earnings growth estimate of 8.4%, which is approximately equal to the firm's long-term growth rate (discussed below) of roughly 9%.

Nonetheless, for the sake of argument, let us assume that there has been significant paradigm shift: developed economies will face a prolonged recovery over the next decade or more in combination with an increasingly frugal consumer base. Thus judging from the margin trends during the onset of the economic downturn, occurring in the final third of the decade, Family Dollar's stated focus on cost containment has been quite effective, leading to the expansion of margins. So under this hypothetical scenario, considerable top and bottom-line margin growth in conjunction with a relatively stable P/E multiple may indicate current undervaluation predicted by ZVM.

To further analyze the model's prediction, let's take a closer look at ZVM's predicted growth rate relative to past growth rates using Zack's unique **Growth & Margin page** within the **Financials tab** in ZRS:

Quarter	REV	REV	Q-T-Q	Year Over Year Percent Change				EPS	EPS	Q-T-Q	Net Mgn	EPS	Shares - Diluted		
	Actual	Y-1	REV %	REV	RPS	EARN	EPS	Actual	Y-1	EPS%	BNRI	Surprise %	Mil	Y-O-Y %	
Nov 09	1,823	1,754	0.6	4	5	14	17	0.49	0.42	14.0	3.7	4.3	139	-0.7	
Feb 10	2,090	1,992	14.7	5	7	33	35	0.81	0.60	65.3	5.4	3.9	138	-1.6	
May 10	1,997	1,843	-4.5	8	13	19	24	0.77	0.62	-4.9	5.2	1.3	136	-3.8	
Aug 10 *	1,957	1,811	-2.0	8	14	23	30	0.56	0.43	-27.3	3.8	9.8	133	-5.0	
Nov 10	1,997	1,823	2.0	10	18	10	18	0.58	0.49	3.6	3.7	-4.9	129	-7.3	
Feb 11	2,263	2,090	13.3	8	19	10	21	0.98	0.81	69.0	5.4	0.0	126	-9.0	
May 11	2,153	1,997	-4.9	8	19	6	18	0.91	0.77	-7.1	5.2	-3.2	123	-9.7	
Aug 11 *	2,134	1,957	-0.9	9	21	8	18	0.66	0.56	-27.5	3.7	3.1	120	-9.6	
<b>TTM</b>	<b>8,548</b>	<b>7,867</b>	<b>2.1</b>	<b>9</b>	<b>19</b>	<b>8</b>	<b>19</b>	<b>3.13</b>	<b>2.63</b>	<b>3.30</b>	<b>4.54</b>				
Nov 11 E	2,166	1,997	1.5	8	16	9	17	0.68	0.58	2.4	3.8		120	-6.7	
Feb 12 E	2,466	2,263	13.8	9	13	12	16	1.14	0.98	68.6	5.6		120	-4.2	
May 12 E	2,353	2,153	-4.6	9	11	16	18	1.07	0.91	-5.9	5.5		120	-1.8	
Aug 12 E *	2,335	2,134	-0.8	9	9	17	17	0.77	0.66	-28.2	4.0		120	0.0	
<b>F4Q E</b>	<b>9,320</b>	<b>8,547</b>	<b>2.2</b>	<b>9</b>	<b>12</b>	<b>14</b>	<b>17</b>	<b>3.66</b>	<b>3.13</b>	<b>3.1</b>	<b>4.7</b>				
				Least Square Growth Rates (%)				Point to Point Growth Rates (%)				Zacks Long Term Growth Rate Estimates (%)			
	Years	REV	RPS	EARN	EPS	REV	RPS	EARN	EPS	14.2	Mean Growth Rate Estimate				
	1	8	20	7	17	9	19	8	19	7	Number of Estimates				
	3	7	12	17	24	7	11	19	24	1.8	Standard Deviation				
	5	6	9	15	19	5	9	10	14						
	10	8	12	5	9	9	12	7	11						
	15	11	13	9	12	11	14	13	16	12.4	Default Growth Rate Estimate				
	20	12	13	11	13	11	13	12			Analyst Growth Rate Estimate				

Zacks is the only industry provider that has created this distinctive view, which consists of past and future aggregate or per share growth rates, past and future earnings surprises, stock buyback trends (discussed in next section) and other metrics of interest.

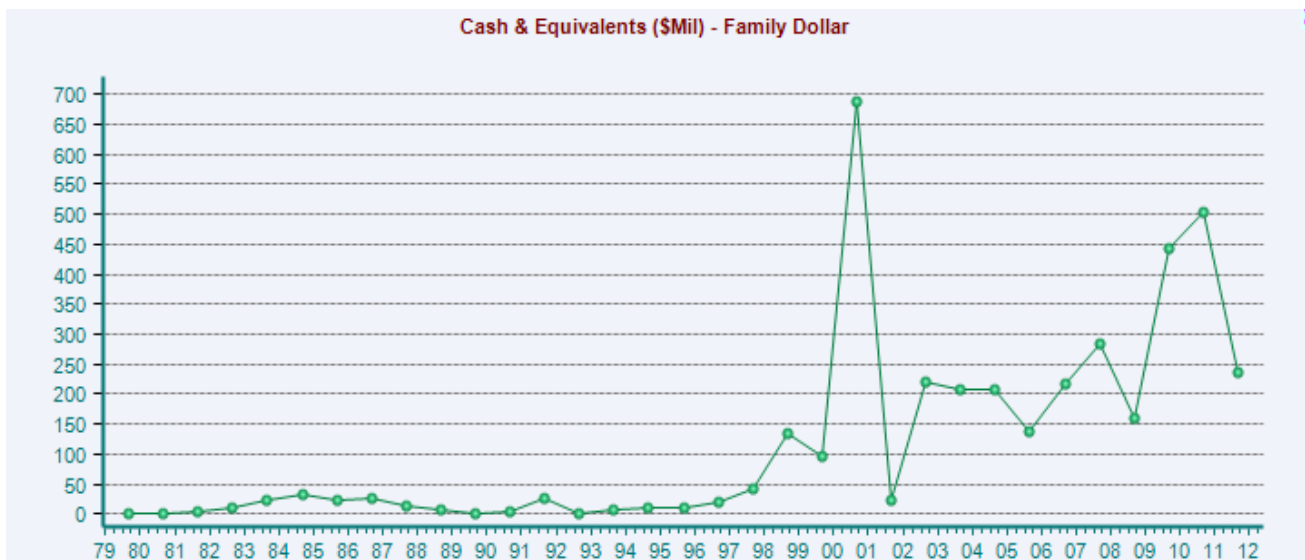
Upon first glance at the table, it also should be apparent that the 8.4% earnings growth, currently priced into the market, seems accurate relative to the lower of top line (revenue) versus bottom line (earnings) growth in aggregate. Aggregate growth rates must be used in times of aggressive share buybacks — discussed in following section — to normalize the distortion in growth that can be seen by comparing the per share growth rates to aggregate growth rates respectively. Generally speaking, the investment community will not pay for the rise in diluted growth attributable to share repurchases. Recent aggregate earnings growth trends of 17% and 15% — over the past 3 and 5 years, respectively — should be discounted as unsustainable cost cutting efforts when compared to revenue growth of only 7 and 6 percent for the same time period.

Having drilled further into Family Dollar's fundamentals, we have uncovered evidence that the current market may have fairly valued the firm. On the other hand, there is some support of the belief that Family Dollar is currently undervalued, assuming we extrapolate current economic and consumer trends into the future.

But let's not stop there; within the same **Growth & Margins** view in ZRS Financial tab, we can also see the following table regarding buybacks:

Quarter	Shares - Diluted	
	Mil	Y-O-Y %
Nov 09	139	-0.7
Feb 10	138	-1.6
May 10	136	-3.8
Aug 10 *	133	-5.0
Nov 10	129	-7.3
Feb 11	126	-9.0
May 11	123	-9.7
Aug 11 *	120	-9.6
<b>TTM</b>		
Nov 11 E	120	-6.7
Feb 12 E	120	-4.2
May 12 E	120	-1.8
Aug 12 E *	120	0.0

As we can see from the table, Family Dollar has returned a large portion of its cash in the form of buybacks, doing this aggressively over the past 6 quarters. However, judging from the analyst estimates (in green), this trend is predicted to taper-off over the next year. To uncover whether these estimates are possibly due to poor cash flow management or a shift in strategic policy, let's use the **Summary Standardized** option within the **Financials tab** in ZRS for further evaluation:



Free Cash Flow Adjusted - Family Dollar



Free Cash Flow Adjusted After Divs - Family Dollar



We can see that Family Dollar has been actively managing its cash flows effectively, returning capital to its investors via an aggressive buyback program and to a lesser extent, through dividend disbursements, while at the same time steadily increasing its cash balance in absolute terms.

So if consensus estimates of buybacks in the future are expected to decrease significantly, how will Family Dollar deploy its cash? The company has stated publicly that it is planning to accelerate the pace of new store openings while also renovating/expanding existing stores to meet growing consumer demand. Management's planned capital investment in new and existing stores should help drive revenue and earnings growth in the future and thus provide more credibility to ZVM's forecast.

In summary, let us recall some of the fundamental data and trends previously expounded on relative to Family Dollar:

- 1) Relative cumulative outperformance over the past 5 and 10 year periods versus the S&P 500
- 2) Relative cumulative outperformance over the past 5 and 10 years versus its relevant industry peer composite.
- 3) Steady top-line revenue growth over the past 10 years
- 4) Strong bottom-line margin growth over the past 5 years
- 5) Increasingly better cash flow management: aggressive stock buybacks while maintaining a steady and robust cash balance

Now, these facts can be added to the other information that was found using ZVM and ZRS:

- 6) Analysts' consensus estimate of the 3-5 year earnings growth rate is expected to be 14.30%, which deviates slightly from the conservative default estimate of 12.48% used in the valuation.
- 7) Currently, the market is pricing an implied earnings growth rate of 8.48%, which is considerably lower than the analysts' consensus estimate and ZVM's default earnings growth rate of 14.30% and 12.48%, respectively.
- 8) Based on Growth and Margin view analysis, 8.48% implied growth appears sustainable based on historical trends and supported with both historical revenue growth and forecast revenue growth.
- 9) Margins appear to be closing in on cyclical highs, indicating that aggregate earnings growth rates should decrease and begin to realign with long term rates (i.e. roughly 9%).
- 10) Despite ultra low interest rates and an increasing equity risk premium over the past five years, its P/E multiple has been quite stable due to Family Dollar's strong earnings growth during that period.

Given the evidence collected, it seems plausible that Family Dollar is currently fairly valued but could meet or exceed earnings growth of roughly 8.48% over the short-term. However, there is one main caveat that the current market seems to be discounting with regards to Family Dollar: the idea that the U.S. economy's anemic recovery will not persist over the long-term and that many consumers will eschew their recent spendthrift patterns as their financial prospects improve. In addition, one can assume a reversion of margin trends as these values have been steadily approaching cyclical highs. Thus, it is reasonable to imagine that these issues would impede Family Dollar's continued recent growth over the long-term.

Therefore, over the short term, one can be confident that Family Dollar's strong performance will continue given the Fed's insistence on maintaining an accommodative monetary policy and the persistence of a price-sensitive public in the face of a deleveraging world. However, over the long-term, it would appear that Family Dollar's elevated growth prospects are inversely dependent on the uncertain health of the U.S. economy and its consumers.

Tim Nyland, CFA  
Nicholas Karabinis