

4-17-2013

# Projecting Stock Price Movements with Fair Value Analysis

Follow this and additional works at: [https://ecommons.udayton.edu/stander\\_posters](https://ecommons.udayton.edu/stander_posters)

---

## Recommended Citation

"Projecting Stock Price Movements with Fair Value Analysis" (2013). *Stander Symposium Posters*. 360.  
[https://ecommons.udayton.edu/stander\\_posters/360](https://ecommons.udayton.edu/stander_posters/360)

This Book is brought to you for free and open access by the Stander Symposium at eCommons. It has been accepted for inclusion in Stander Symposium Posters by an authorized administrator of eCommons. For more information, please contact [frice1@udayton.edu](mailto:frice1@udayton.edu), [mschlange1@udayton.edu](mailto:mschlange1@udayton.edu).

# Projecting Stock Price Movements with Fair Value Analysis



By: Jessica Thomas and Gianina Alagia  
 Advisors: Dr. Robert Dean &  
 Dr. Elizabeth Gustafson



## Study Objective:

- Assess the predictive capabilities of Morningstar's fair value metric
- Determine if Morningstar's fair value metric can identify mispriced stocks

## Study Design:

- Data Set
  - Dow Jones 30 stocks
  - Morningstar fair value metrics
  - Stock returns, Dow 30
  - Fair value indices, Dow 30
- Time Period
  - 2009-2012
  - Quarterly intervals

## Fair Value Model:

- $FVI_{it} = FV_{it} / P_{it}$
- Mispriced Securities
  - $FVI_{it} > 1$ , undervalued
  - $FVI_{it} = 1$ , fair value
  - $FVI_{it} < 1$ , overvalued

## Hypotheses:

- $FVI_{it} > 1, P_{it+n} > P_{it}$
- $FVI_{it} = 1, P_{it+n} = P_{it}$
- $FVI_{it} < 1, P_{it+n} < P_{it}$

## Nomenclature:

- $Fv_{it}$  = Fair value of stock (i)
- $P_{it}$  = Price of stock (i)
- $FVI_{it}$  = Fair value index (i)
- $t$  = time period, quarterly

## Returns versus FVI

FVI	Returns		Total Return Count	Positive Returns/Total Returns
	+	-		
> 1.60	33	17	50	66.00%
1.5-1.59	13	7	20	65.00%
1.4-1.49	20	6	26	76.92%
1.20-1.39	66	35	101	65.35%
1.00-1.19	87	56	143	60.84%
< 1.00	45	35	80	56.25%
	264	156	420	390.36%

## Conclusion:

- Comparing  $FVI > 1.60$  to  $FVI < 1.00$  the percent of positive returns was 66% versus 56%
- $FVI$  from 1.4 and greater consistently had a higher percentage of positive returns compared to  $FVI$  of 1.39 or less
- Negative returns (absolute) were much lower for  $FVI$  1.4 and greater compared to  $FVI$  1.39 and lower
- Morningstar's  $FV$  has some predictive capabilities in identifying mispriced securities