GARBAGE OUT: THE UNRELIABILITY OF DCF EXTREMES

EBA 2014 Mid-Year Meeting & Conference

Nov. 4, 2014 Washington, DC

Spiegel & McDiarmid

YAHOO GROWTH ESTIMATE FOR POR

Yahoo! Finance reported a 5-year consensus analyst estimated growth rate of 10.96%

Growth Est	POR	
Current Qtr.	20.00%	
Next Qtr.	-18.60%	
This Year	16.30%	
Next Year	5.60%	
Past 5 Years (per annum)	10.33%	10.96%
Next 5 Years (per annum)	10.96% 🦊	
	This Year	Current Qtr. 20.00% Next Qtr18.60% This Year 16.30% Next Year 5.60% Past 5 Years (per annum) 10.33%

http://finance.yahoo.com/q/ae?s=POR+Analyst+Estimate, 9/22/2014

REUTERS GROWTH ESTIMATE FOR POR

- Reuters reported the same mean growth rate of 10.96%, and provided further details for how that number was calculated.
- Reuters believed that one analyst had a whopping 20.43% growth rate, which drove the mean value.

	# of Estimates	Mean	High	Low	1 Year Ago
LT Growth Rate (%)	4	10.96	20.43	5.00	6.30
http://www.reuters.com/finance/st	ocks/analyst?symbc	l=POR, 9/22	2/2014	20	.43%

BUT REUTERS WAS WRONG!

- The 20.43% estimate was not based on an analyst estimate, but a calculation based on a misunderstanding of a data file provided by Deutsche Bank.
- Reuters incorrectly used an unadjusted 2013 EPS values as base to calculate a three-year (rather than five-year) EPS growth rate.
- Reuters stated its IBES database "should have excluded [the 20.43%] but it was missed to exclude."

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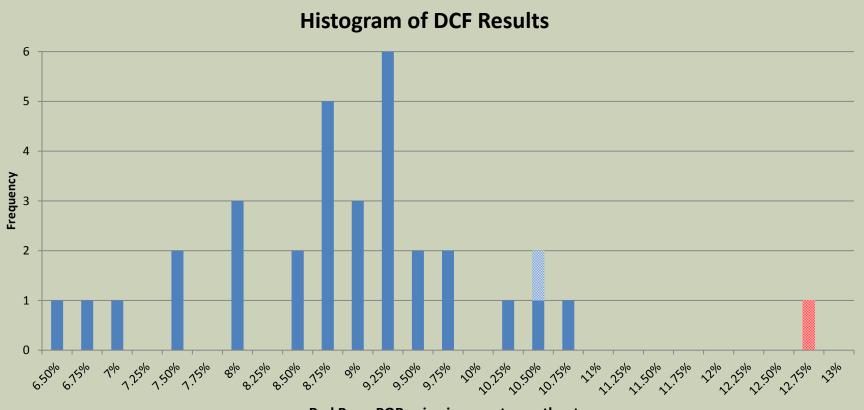
http://www.reuters.com/finance/stocks/analyst?symbol=POR, 9/22/2014

POR DROVE DCF RESULTS

	(a)	(b)		(a)	(a)	(a)		
		vidend Yield			Growth R	ate	_	N / 1
Company	6-Mo. Average	<u>Adjustment</u>	Adjusted	IBES	<u>GDP</u>	Weighted	Cost of Equity	Yaho
ALLETE	3.90%	1.0300	4.02%	6.00%	4.39%	5.46%	9.48%	- 14110
Alliant Energy	3.69%	1.0245	3.78%	4.90%	4.39%	4.73%	8.51%	
Ameren Corp.	4.07%	1.0100	4.11%	2.00%	4.39%	2.80%	6.91%	
American Elec Pwr	3.94%	1.0240	4.03%	4.79%	4.39%	4.66%	8.69%	drov
Avista Corp.	4.18%	1.0250	4.28%	5.00%	4.39%	4.80%	9.08%	
Black Hills Corp.	2.76%	1.0350	2.86%	7.00%	4.39%	6.13%	8.99%	
Cleco Corp.	3.07%	1.0350	3.18%	7.00%	4.39%	6.13%	9.31%	cost
CMS Energy Corp.	3.76%	1.0329	3.88%	6.58%	4.39%	5.85%	9.73%	6051
Consolidated Edison	4.58%	1.0126	4.64%	2.52%	4.39%	3.14%	7.78%	
Dominion Resources	3.47%	1.0301	3.57%	6.02%	4.39%	5.48%	9.05%	
DTE Energy Co.	3.60%	1.0293	3.71%	5.85%	4.39%	5.36%	9.07%	SO IT
Duke Energy Corp.	4.39%	1.0210	4.48%	4.19%	4.39%	4.26%	8.74%	50 10
Edison International	2.69%	1.0188	2.74%	3.75%	4.39%	3.96%	6.70%	
El Paso Electric	2.94%	1.0350	3.04%	7.00%	4.39%	6.13%	9.17%	KORÓ
Empire District Elec	4.30%	1.0150	4.36%	3.00%	4.39%	3.46%	7.83%	rang
Great Plains Energy	3.57%	1.0263	3.66%	5.25%	4.39%	4.96%	8.63%	
Hawaiian Elec.	4.97%	1.0200	5.07%	4.00%	4.39%	4.13%	9.20%	
IDACORP, Inc.	3.16%	1.0200	3.22%	4.00%	4.39%	4.13%	7.35%	reas
ITC Holdings Corp.	1.61%	1.0562	1.70%	11.23%	4.39%	8.95%	10.65%	ICas
NextEra Energy, Inc.	3.08%	1.0312	3.18%	6.23%	4.39%	5.62%	8.79%	
Northeast Utilities	3.50%	1.0311	3.61%	6.21%	4.39%	5.60%	9.21%	
NorthWestern Corp.	3.44%	1.0400	3.58%	8.00%	4.39%	6.80%	10.37%	
Otter Tail Corp.	4.13%	1.0300	4.25%	6.00%	4.39%	5.46%	9.72%	
PG&E Corp.	4.17%	1.0322	4.30%	6.44%	4.39%	5.76%	10.06%	
Pinnacle West Capital	4.17%	1.0218	4.26%	4.35%	4.39%	4.36%	8.62%	
Portland General Elec.	3.45%	1.0561	3.64%	11.21%	4.39%	8.94%	12.58%	
Pub Sv Enterprise Grp	4.03%	1.0060	4.05%	1.20%	4.39%	2.26%	6.32%	
Sempra Energy	2.71%	1.0348	2.80%	6.95%	4.39%	6.10%	8.90%	
Southern Company	4.79%	1.0168	4.87%	3.35%	4.39%	3.70%	8.57%	12.58%
Vectren Corp.	3.74%	1.0200	3.81%	4.00%	4.39%	4.13%	7.94%	
Westar Energy	4.00%	1.0145	4.06%	2.90%	4.39%	3.40%	7.45%	
Xcel Energy, Inc.	3.89%	1.0225	3.98%	4.49%	4.39%	4.46%	8.43%	
Range of Reasonabler	iess						6.32% 12.58%	
							1.00%	

Yahoo's growth rate drove POR's implied cost of equity way up, so it set the top of the range of reasonableness.

POR WAS A CLEAR OUTLIER



Red Bar – POR using incorrect growth rate Blue Bar – POR using correct growth rate

ERRORS IN REUTERS DATA ABOUND

	# of Estimates	Mean	High	Low	1 Year Ago
SALES (in millions)					
Quarter Ending Mar-14	4	3,850.97	4,117.05	3,138,57	3,923.11
Quarter Ending Jun-14	4	4,406.98	4,595.38	4,278.45	4,681.76
Year Ending Dec-14	13	17,797.80	18,833.80	17,425.00	18,757.80
Year Ending Dec-15	10	18,511.50	19,774.90	17,835.50	19,531.20
Earnings (per share)					
Quarter Ending Mar-14	11	0.53	0.60	0.42	0.51
Quarter Ending Jun-14	10	0.69	0,73	0.65	0.76
Year Ending Dec-14	24	2.76	2.86	2.70	2.93
Year Ending Dec-15	18	2.86	3.02	2.75	0.12
LT Growth Rate (%)	8	9.00	45.00	2.30	5.11

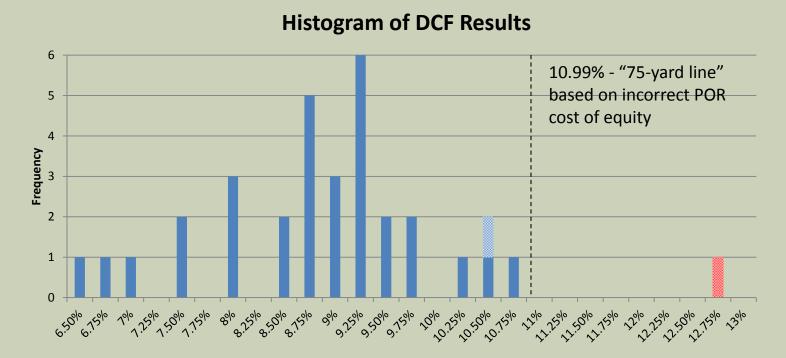
Reuters Report for Southern Company, 1/31/2014

THOMSON REUTERS' BANGALORE OFFICE

Where Yahoo's "5 Year" earnings-per-share growth rates are imputed (with errors) from Year 3 estimates.



HOW TO FIND A JUST AND REASONABLE END RESULT GIVEN SUCH DOUBT?



- If some Yahoo EPSGs are unreliable, especially the highest, can it be reasonable to base ROEs mainly on the single highest proxy EPSG?
- Do FERC pre-trial procedures allow fair opportunities to discover such errors?

WHAT <u>SHOULD</u> DRIVE ROE: EQUITY'S COST GIVEN GLUTTED CAPITAL SUPPLY

Figure 1

Total global wealth 2000–2014, by region

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2014

