DISCRETIONARY EXPENDITURES: REFINEMENTS AND CASES

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Refinements to Discretionary Expenditure Models

- **Discretionary expenditure models are very imprecise**
  - **Still have the problem that economics of firm may have shifted to warrant a legitimate change in expenditures**
- **Refinement #1: Use Distance measure to identify earnings management motives during the year**
  - **Company would miss earnings target without a cut in expenditures**
    - **"Meet or Beat": Incentive to cut expenditure to meet or beat earnings target**
  - **Company would miss earnings target even with a cut in expenditures**
    - **"Big Bath": Incentive to increase expenditure to make a bad year even worse, but save future expenses**
  - **Company would make earnings target even with an increase in expenditures**
    - **"Smoothing": Incentive to increase expenditure to make a "great" year just a "good" year, and save future expenses**
- **Refinement #2: Use quarterly expenses to identify unusual changes late in the year**

Refinement #1: Distance Measure

- **Distance Measure (for R&D)**
  - **Distance (R&D) = (Current Pre-R&D Earnings – Prior Pre-R&D Earnings) / Prior R&D Expense**
    - **Pre-R&D Earnings = Pre-tax Income + R&D Expense**
    - **Can also compute for SG&A and Advertising**

	2014	2015
Pre-tax Income	500	505
R&D Expense	90	84
Pre-R&D Earnings	590	589

- **Distance = (589 – 590) / 90 = -0.011**
  - **Company must cut R&D by 1.1% (from 90 to 89) to equal last year's earnings**

Refinement #1: Distance Measure

- **"Meet or Beat"**
  - **If Distance is between 0 and -0.20 (or so), then company could cut enough R&D to meet earnings target**
- **"Big Bath"**
  - **If Distance is less than -0.20 (or so), then company could not feasibly cut R&D enough to meet earnings target**
- **"Smoothing"**
  - **If Distance is greater than 0, then company can increase R&D and still meet earnings target**

Refinement #2: Quarterly Changes

- **Some firms report quarterly amounts of expense**
  - **In 2015, 95% reported quarterly SG&A, 30% reported quarterly R&D, 0% reported quarterly advertising**
  - **Year over Year (YoY) Change = (Expense this quarter – Expense same quarter last year) / Expense same quarter last year**
- **If discretionary expenditures are used to manipulate annual earnings, we would expect YoY Change in 4th quarter is different than other 3 quarters**
  - **"Meet or Beat": Cut R&D in Q4**
  - **"Big Bath" or "Smoothing": Increase R&D in Q4**
- **Look at pattern of quarterly changes in conjunction with Discretionary measures and Distance**

Company #1: Possible “Meet or Beat”

- **Dog-Techno Corp**

Year	Discretionary R&D	Distance (R&D)	YoY R&D Q1	YoY R&D Q2	YoY R&D Q3	YoY R&D Q4	Chg Pre-tax income/ Revenue
2009	-0.003	0.083	3.4%	7.0%	6.3%	6.4%	0.002
2010	0.011	0.112	4.1%	9.3%	8.9%	4.2%	0.004
2011	-0.010	0.374	7.6%	3.3%	-0.4%	3.4%	0.032
2012	-0.019	-0.033	0.7%	3.5%	13.1%	12.7%	-0.010
2013	-0.054	-0.007	11.8%	8.3%	1.4%	-1.4%	0.005

Company #2: Possible “Big Bath”

- **Rexido Corp**

Year	Discretionary R&D	Distance (R&D)	YoY R&D Q1	YoY R&D Q2	YoY R&D Q3	YoY R&D Q4	Chg Pre-tax income/ Revenue
2003	-0.010	0.146	-0.3%	-3.3%	17.7%	-31.7%	0.052
2004	0.102	0.187	17.7%	8.7%	25.7%	-1.1%	0.009
2005	-0.019	0.092	8.2%	22.0%	-17.9%	29.1%	0.000
2006	-0.010	0.294	18.4%	8.4%	24.5%	11.7%	0.022
2007	0.180	-0.634	16.3%	33.9%	52.8%	435.7%	-0.133

Company #3: Possible “Smoothing”

- **NDOGTHA Inc.**

Year	Discretionary R&D	Distance (R&D)	YoY R&D Q1	YoY R&D Q2	YoY R&D Q3	YoY R&D Q4	Chg Pre-tax income/ Revenue
2002	0.052	0.027	61.1%	68.8%	110.3%	30.5%	-0.075
2003	0.009	-0.195	13.0%	14.7%	-17.9%	25.5%	-0.034
2004	0.030	0.367	31.1%	30.2%	14.8%	16.8%	0.021
2005	0.001	0.756	13.0%	2.0%	1.1%	11.1%	0.115
2006	0.082	0.935	40.3%	46.1%	58.4%	73.8%	0.058


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