# DISCRETIONARY EXPENDITURES MODELS

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## Discretionary Expenditures

- **Net Income = Cash Earnings + Non-cash Earnings**
- **Managers can manipulate cash earnings by delaying or accelerating real expenditures, especially those that must be expensed immediately (i.e., not capitalized)**
  - **Research & Development**
  - **Advertising**
  - **Selling, General, & Administrative**
    - **Maintenance, training, travel, etc.**
- **"Real Earnings Management" does not violate securities laws and is viewed by managers as more ethical**
  - **But, it must be done well in advance of the end of the period**
- **Real Earnings Management is hard to detect**
    - **Did managers have a legitimate reason to delay expenditures due to performance?**

## Model of Discretionary Expenditures

- Normal expenditures are a function of last year's expenditures, revenues, and growth
- We'll model change in expenditures (current year – prior year)
  - We'll use prior year's revenue growth and prior year's revenue
    - Normal expenditures are budgeted based on prior year's results
    - Using prior years ensures that model is not affected by current year sales manipulation
    - Everything is deflated by Prior Total Assets
- Change in Expenditures = $\alpha$ + $\beta$*Prior Sales Growth + $\chi$*Prior Sales + $\varepsilon$
  - Expenditures = SG&A Expense, R&D Expense, or Advertising Expense
  - Use industry-year regressions to get estimated a, b, and c parameters
  - Normal change in expense = a + b*Prior Sales Growth + c*Prior Sales
- Discretionary Expenditures = Total Change in Expense – Normal Change in Expense

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