Class #3
"Cash Flow Analysis"

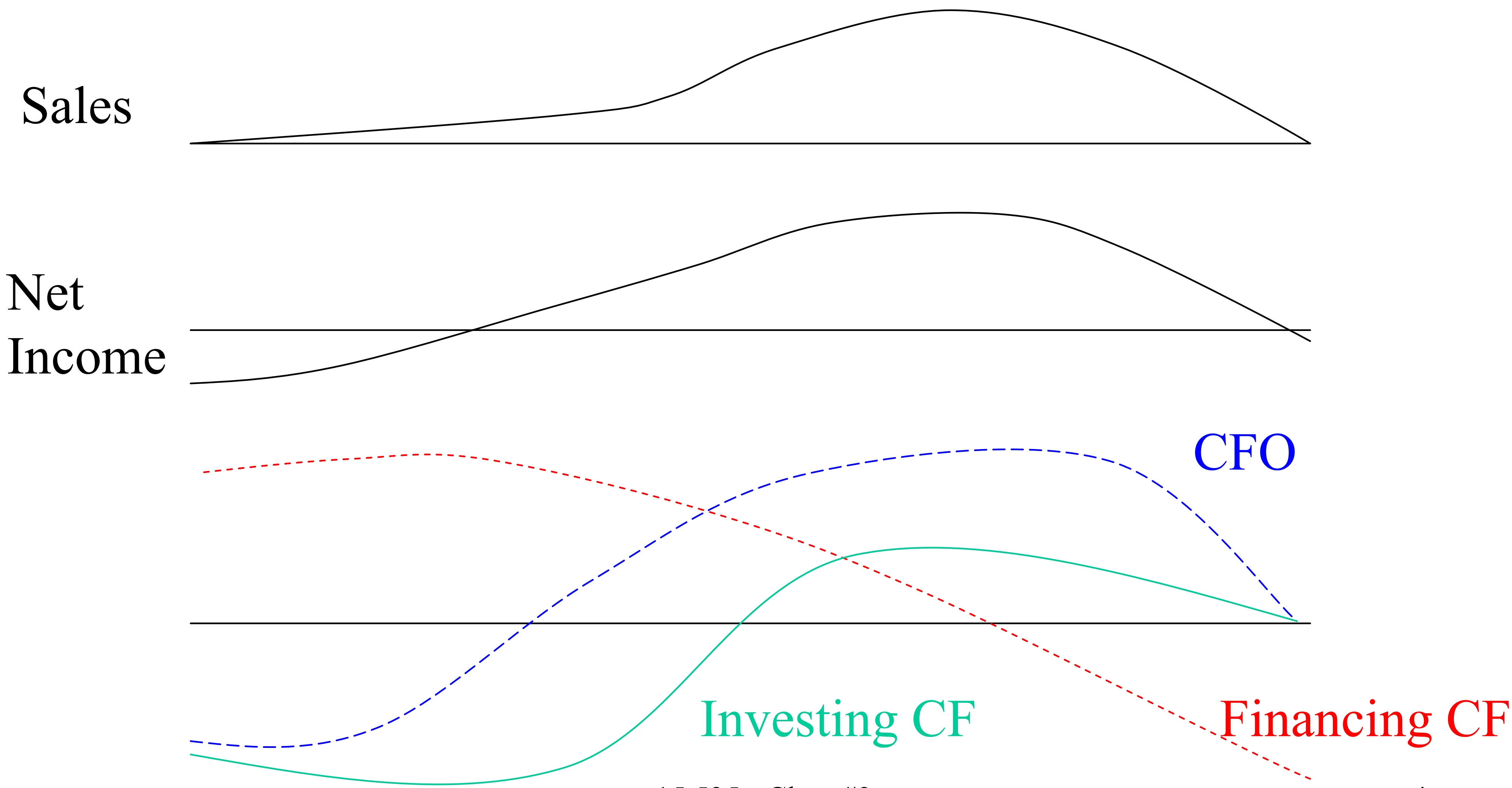
Quickie Announcements

- In class on Thursday: Submit form with names of team members and your 3 company choices for project.
- Matching team members.

Cash Flow Statement

- Cash flow statement
  - Undo the current period accrual adjustments affecting
    - Operating, Investing, and Financing activities
- Operating activities (income statement)
    - Changes in receivables and inventories
      - Real changes and potential fraud/manipulation
    - Changes in accounts payable and taxes payable
    - Depreciation

Cash Flows over the Firm's Life Cycle: Implications for CF Projections



Indirect Cash Flow Statement: Example

- Indirect method: Walmart Stores, FY ending January 31, 2001 (‘000 dollars)

Net income	**$6,295**
Adjustments	
Depreciation and amortization	2,868
Increase in Accounts Receivable	(422)
Increase in Inventories	(1,795)
Increase in Accounts Payable	2,061
Increase in Accrued Liabilities	11
Deferred income taxes	342
Other	244
Cash flow from operating activities	**$9,604**

Cash Flow Analysis - Walmart

CFO = NI – WC Accruals + Deprec

= NI – [ΔNonCash CA - ΔCL) + Deprec

= NI – [ΔAR + ΔInv - ΔAP - ΔAccLiab] + Dep

= 6,295 – [422+1,795-2,061-11] +

342 + 244 + 2,868

= 6,295 – 422 - 1,795 + 2,061+ 11 +

342 + 244 + 2,868

= 9,604

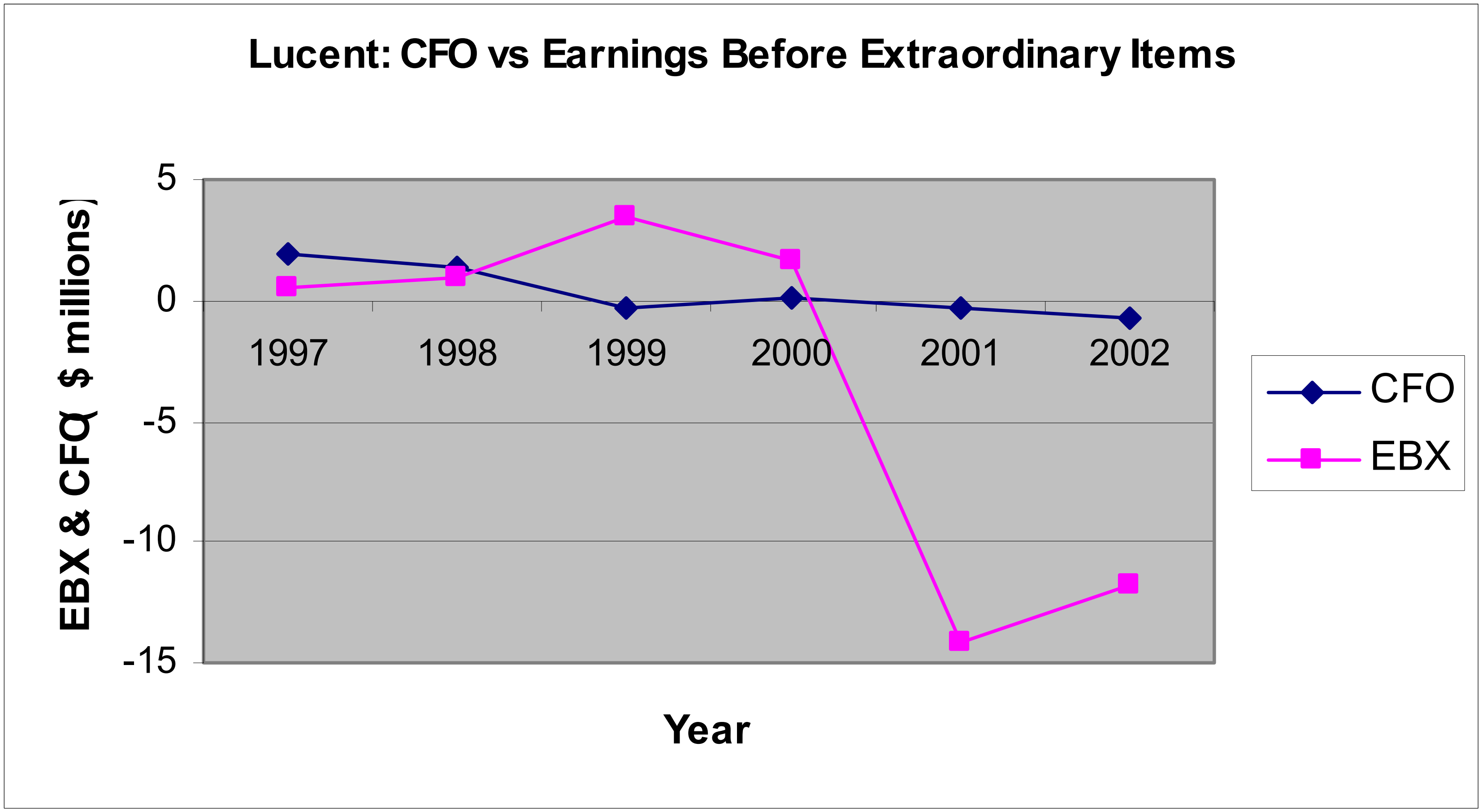
Cash Flow Statements: Look for Creativity in Classifying Cash Flows

- Classification of pre-opening costs by *50-Off Stores* (a retailer)
  - Pre-opening costs of $7.7 million as investing activity
  - Operating cash flow in millions
    - Reported $10.3
    - Reclassifying pre-opening costs (7.7)
    - Adjusted operating cash flow $2.6
- The next year, *50-Off Stores* changed the classification to operating activity
- Comparison: The Gap, Inc. Annual Report
  - Costs associated with the opening or remodeling of stores, such as pre-opening rent and payroll, are expensed as incurred. The net book value of fixtures and leasehold improvements for stores scheduled to be closed or expanded within the next fiscal year is charged against current earnings.

Cash Flow Analysis: Trend Analysis

- Red flags: Growing discrepancy between net income and cash flows
  - Premature recognition of revenues
    - At a later date, A/R written off
      - **IBM in early 1990s**: Over-booked revenues from leases and shipments to distributors
      - **Bausch and Lomb**
        - » New sales strategy in 1993: Instead of direct shipments to high-volume customers, business through distributors
        - » Shipments to distributors included in revenues
        - » $25 million revenues booked in the final weeks
        - » B&L collected only 15% of the cash that distributors were scheduled to pay

Cash Flow Analysis: Trend Analysis



Cash Flow Analysis

- Red flags: Growing discrepancy between net income and cash flows

- Undervaluation of liabilities
    - Reduced accrual for warranty expense
  - Overcapitalization
    - Asset write downs in later periods, no cash flow effect

Cash Flow Analysis – Amazon.com

- Operating Section
  - Consider year ended December 31, 2002
    - GAAP NI = ($149M)
    - Pro forma net income = ($66M)
    - Cash flow from operations = $174M
  - Question: What are main reasons for difference?
    - Why would Amazon focus on “Pro forma” numbers in its press releases?

Cash Flow Analysis

- Investing activity
  - Management's expectations
    - Increased investments if high growth is forecasted
  - Effect of the nature of business
    - Capital intensive
      - High investment in PP&E
    - Distribution/retailing
      - Leased outlets
        - » Capital leases or operating leases

Cash Flow Analysis: Amazon.com

- Investing activity
  - What does cash largest inflow come from?
    - Does this provide useful information about “operational” investments?
  - Compare 1999 to 2002 for Sales vs Purchases of marketable securities:
    - What does this tell us about “cash-burn”?

Cash Flow Analysis

- Financing activity
  - Effect of the nature of business
    - Who finances with debt?
      - Growth options versus assets in place
    - Debt capacity of assets
      - Tangible assets, Steady cash flow generation
      - Investment not unique to the firm
      - Tax advantage of debt
  - Related to current operating performance
    - Growth associated with investing and financing

Cash Flow Analysis: Amazon.com

- Financing activity
  - Proceeds from exercise of stock options … key thing to examine. Is this a “good thing”?
  - What type of firm is Amazon?
    - Growth options versus assets in place?
    - What type of financing would you expect?
  - Lets’ examine financing in past 5 years:
    - Look at 1999 “Proceeds from long-term debt”
    - What type of debt did Amazon issue?
    - Is this debt financing?

Cash Flows: Definitions

- Back to course objective: Valuation and Analysis … For DCF Valuation, we want FCF!
  - Use Operating, Investing and Financing sections
  - Other Definitions of Cash Flow? (handout)
- General Strategy for Valuation
  - Take current financial statements (Income Statement, Balance Sheet and Statement of Cash Flows) and project into the future
    - Key Issue: What are sustainable trends and what things are transitory?
    - How much reinvestment is required now (or in the future) to maintain and grow the business?

Cash Flows: Levered versus Unlevered FCF

- FCF to a levered firm (ie the FCF to the equityholders of a firm with debt) is simple to calculate:
  - FCF = CFO + CFI
    - (CFO is "usually" >0, CFI is "usually" < 0)
- What about enterprise valuation?
- Must determine FCF to levered firm (ie create an all equity firm):
  - FCF = CFO + after-tax interest CF + CFI
    - Waste Management example

Cash Flow Analysis

- Performance assessment: What is the benchmark?
  - Stage in a firm's (product) life cycle: Young, growing versus mature firm
  - Industry:
    - Capital intensive versus labor intensive
    - Length of operating cycle
    - Assets in place versus growth options
  - Peer firm comparison

Cash Flow Analysis

- Technology, growth firms like Microsoft
  - Software, growth options firm: Not much depreciation
  - Financing activity: primarily related to equity

Cash Flow Analysis

- Airlines
  - Cash flow from operations is large compared to Net Income, even in loss years
  - Large depreciation and large investing amounts
  - Debt financing

Cash Flow Analysis

- Retailers:
  - Walmart: Large wedge between CFO and Net income: Why?
  - Compare to Abercrombie and Fitch

"ANF"	**2000**	**1999**	**1998**
Net Income	$158M	$149M	$102M
CFO	$152M	$153M	$169M

Next Class: Using Accounting Earnings for Valuation

- Reminder about projects team names and company picks due next class
- Additional reading for today's class: Look at examples in "Section D" of course packet (*Income versus cash flows),* Netscape (page 72), Walmart (page 73), Merck (page 75), American Airlines (page 76).
- Reading for next class: Handout about accounting valuation
- Assignment #1 will be distributed on Thursday.