Financial Statement Fraud

Improper Asset Valuation
This is a loaded accountant and I'm not afraid to use him!!
“The law does not pretend to punish everything that is dishonest. *That would seriously interfere with business!*”
Introduction

- Revenues are not the only method the fraudster uses to commit financial statement fraud. **Manipulating balance sheet accounts** is an additional favored method of overstating earnings or presenting a “healthier” presentation of a company’s financial position.
Lower of Cost or Market Value

- Generally accepted accounting principles require assets to be recorded at the lower of cost or market value.
- If an asset’s cost exceeds its current market value, the asset must be written down (decreased) to its market value.
Balance Sheet Classification

- Schemes may inflate current assets to the detriment of long-term assets.
- Misclassifying a long-term asset as a current asset affects certain ratios.
- Loan covenants may require certain liquidity/ration.
- “Window dressing”
Balance Sheet Classification

- Inventory and receivables are generally the most manipulated accounts.
- Goodwill may become a risky area (FASB ASC 350—impairment).
- Business combinations
  - Allocation of purchase price
The Arithmetic of Inventory Valuation Fraud

- The manner in which cost of goods sold, gross profit, and net income are affected when closing inventory figures are increased (inflated) or decreased (deflated) is illustrated by the following hypothetical income statements.
<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
<th>% of Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$100,000</td>
<td>100%</td>
</tr>
<tr>
<td>COGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Inventory</td>
<td>30,000</td>
<td></td>
</tr>
<tr>
<td>Purchases</td>
<td>80,000</td>
<td></td>
</tr>
<tr>
<td>Freight In</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Available for Sale</td>
<td>111,000</td>
<td></td>
</tr>
<tr>
<td>Less: Ending Inventory</td>
<td>40,000</td>
<td></td>
</tr>
<tr>
<td>COGS</td>
<td>71,000</td>
<td>71%</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>29,000</td>
<td>29%</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>19,000</td>
<td>19%</td>
</tr>
<tr>
<td>Net Income</td>
<td>$10,000</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Amount</td>
<td>% of Sales</td>
</tr>
<tr>
<td>------------------------------</td>
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<td>------------</td>
</tr>
<tr>
<td><strong>Sales</strong></td>
<td>$100,000</td>
<td>100%</td>
</tr>
<tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Available for Sale</strong></td>
<td>111,000</td>
<td></td>
</tr>
<tr>
<td><strong>Less: Ending Inventory</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased 25% (10,000)</td>
<td>50,000</td>
<td></td>
</tr>
<tr>
<td><strong>COGS</strong></td>
<td>61,000</td>
<td>61%</td>
</tr>
<tr>
<td><strong>Gross Profit</strong></td>
<td>39,000</td>
<td>39%</td>
</tr>
<tr>
<td><strong>Operating Expenses</strong></td>
<td>19,000</td>
<td>19%</td>
</tr>
<tr>
<td><strong>Net Income (Increased 100%)</strong></td>
<td>$20,000</td>
<td>20%</td>
</tr>
</tbody>
</table>
Methods of Manipulating Ending Inventory Amounts

- Generally, inventory will be manipulated by:
  - Overstating Physical Counts
  - Increasing Inventory Valuation Amount
- Your book lists 19 methods for doing this.
Analytical Procedures That Might Point to Material Misstatements

- **Examples:**
  - Laribee Wire—Use of nonfinancial data to spot overstatement of inventory
  - U.S. Surgical—Procedures at planning stage would spot fluctuations in inventory that should have been of concern
  - ZZZZ Best—
    - Industry comparisons of restoration revenue trends would show potential problems
    - Ratio of restoration revenue to carpet cleaning business
Example: Laribee Wire Manufacturing Co.

- Plagued by high debt from an acquisition
- Reported inventory
  - Did not exist
  - Overvalued
- Duplicate recording of same wire
- Would not physically fit in facility!
- Forklift capacity insufficient
COMPANY EXAMPLE: U.S. SURGICAL

- Cost allocation scheme
- Vendor conspiracy (dependent vendor)
  - Vendor sells parts and molds and dies
    - Raises price for molds and dies (capitalized)
    - Lowers price for parts (increases gross margin)
MiniScribe

- Inventory Fraud
  - 1986—$4.5 million
  - 1987—$22 million
  - 1988 (1/2 year)—$31.8 million
MiniScribe (Continued)

- Scrap parts and bricks were packed in boxes and shipped to distributors—counted as good inventory
- Developing a software package called “Cook Book” to generate fake sales transactions
- Broke into auditors bags to see which items had been test counted—then inflate the rest!
MiniScribe (Continued)

- Symptoms grew in size and number over time
  - Large balance increases
  - Large in-transit inventory
  - Purchase cutoff
  - Returns
  - Customer complaints
  - Tips
Fraud Risk Factors—Construction Contractors

- Excessive interest in manipulating percentage of completion estimates
- Inability to make reasonable estimates of contract costs, % of completion, cash flow needs
- Unusually high number of claims for performance problems
- Willingness to inappropriately allocate costs to profitable contracts in process to avoid recognizing losses on bad contracts in process
- Willingness to inappropriately allocate costs between completed and uncompleted contracts
Fraud Risk Factors—Dealerships

- Incentive pay system for a GM that has low base pay and large bonus arrangement tied to beating an aggressive budget/target
- Manufacturer’s line has not been well received in the market
- Losses are accelerating and dealership debt is personally guaranteed by owner
- High-value parts with lax controls
- Used vehicle inventory is counted infrequently and is done by the used vehicle manager
- High cash receipts for parts and vehicle sales/note collections with no segregation of duties
- Parts manager is authorized to buy from vendors other than the manufacturer without prior approval
Fraud Risk Factors—Dealerships

- Number of demos has increased and demos are never observed during the inventory counts.
- Gross profit on used vehicles has been consistent, but this year it drops substantially.
- Parts inventory records typically differ from the count by 1% to 2%. This year there is a 10% variance.
- Several vehicle receivables have not been collected for over a month past the year end.
Fraud Scheme Examples—Dealerships

- Agreed to pay off customer loans on trade-ins, sold vehicle, kept the money ($800,000)
- Shuffling vehicles between various dealerships to defraud banks ($3.7 million)
  - “Ruston Ford would allegedly deposit a bogus draft into its bank account. The bank, believing a car had been sold to another dealer, would give Ruston Ford immediate credit on the deposit. The vehicles were rarely transferred.”
  - One car was typically listed on the inventories of multiple dealerships.
“Clients incorrectly thought they’d purchased cars from him. They let him (Mr. Hocks) keep the car titles, allowing them to forego paying sales taxes on the vehicles. Most paid Mr. Hocks in cash.”

- Banks wanted to repossess the vehicles from the customers
- “This certainly has put a wrinkle on things” ($1.6 million bank fraud)

“Bennett and Bender also paid an employee of their outside audit firm to tip them off to upcoming audit procedures . . . $200 to $300 for each tip.”

- Bennett changed paperwork to reflect deals that never took place (i.e., simulated customers). ($341,000 bank fraud)
Red Flags of Improper Inventory Valuation

- Recurring negative cash flows from operations or an inability to generate cash flows from operations while reporting earnings and earnings growth
Red Flags of Improper Inventory Valuation

- Unusual increase in gross margin, or margin in excess of industry peers
- Unusual growth in the number of days’ purchases in inventory
Red Flags of Improper Inventory Valuation

- Excess and obsolete inventory that is shrinking in percentage terms or is otherwise out of line with industry peers
- Insurance coverage that is less or greater than the inventory shown on the balance sheet
Red Flags of Improper Inventory Valuation

- Significant upward inventory adjustments at locations that were not observed by the auditors compared to the locations that were observed.
Red Flags of Improper Inventory Valuation

- Quantities of individual inventory items in excess of purchases supported by invoices for the year
- Significant or unusual inventory “shrinkage” from one period to the next
Red Flags of Improper Inventory Valuation

- Components of inventory (raw materials, goods in process, finished goods) exceed the normal business needs of the company
- All or part of the inventory is pledged as security for loans
Red Flags of Improper Inventory Valuation

- Change in method of valuing inventory (LIFO to FIFO) without disclosure of the change
- Increase in individual inventory item pricing that is not supported by market changes
Suggested Interview Questions
Forensic Accounting Investigative Techniques

- Unusually large quantities of high-cost items in the summarized inventory
- Unclear or ineffective cut-off procedures or indications of possible inclusion in inventory of merchandise sold or for which purchases are not recorded
Forensic Accounting
Investigative Techniques (cont.)

- Few or no write-downs to market or provisions for obsolescence when there have been changes in product lines or technology, or rapid declines in sales or markets
- Questionable procedures for determining or aggregating inventory costs or indications that erroneous or insupportable costs have been applied
Forensic Accounting
Investigative Techniques (cont.)

- A gross profit percentage higher than expected or that should be lower in the circumstances (inventory dollar levels and ratios will be similarly affected)
Gross Profit Margin

- Gross profit/net sales should usually be more consistent than others
- Revenue fraud (prior chapter)
- Inventory fraud
  - Overstatement can cause gross profit overstatement/COGS understatement

- Remember!! Small changes in the GP% can have a major effect on the bottom line!!!
Inventory Turnover

- Cost of goods sold/average inventory
- Good determinant of purchasing, production, and sales efficiency
- A higher inventory turnover ratio is considered more favorable
Average Number of Days in Inventory

- 365/inventory turnover
- Inconsistency or significant variance in this ratio is a red flag
- Used to examine inventory accounts for possible larceny schemes
- Significant changes in the inventory turnover ratio are good indicators of possible fraudulent inventory activity
Inventory Turnover—Other Possible Interpretations

- **Slow** (long average collection period)
  - Strain on liquidity
  - Possible excess or obsolete items on hand
  - Fraudulent overstatement of inventory

- **Quick**
  - Just-in-time systems
  - Lost sales due to insufficient quantities on hand
Example: Crazy Eddie, Inc.

- Electronics stores
- Flamboyant owner—Eddie Antar ($68 million through stock sales)
- Rapid growth
- 1987—Bankrupt
- Inventory—$65 million missing or never existed
  - Phony count sheets
  - Correction erased all profits ever reported
Compare to Other Companies

- Balances—just-in-time systems
- Why is balance increasing?
- Types of inventory and risk
  - Technological obsolescence?
  - Spoilage?
Compare to Assets They Supposedly Represent

- Laribee
  - Observation saw no problems
  - Inventory up 500%
- Scheme
  - Added more inventory tags to the box at night
  - Substituted new lists
  - Lazy—50,000 lb rolls
- Auditors checked physical attributes of what should be there
  - Not enough space
  - Not right equipment
Accounts Receivable

- The potential for fraud in accounts receivable is second only to the potential for fraud in inventories.
Accounts Receivable

- This is due primarily to:
  (a) The large amount of dollars involved
  (b) The effect that such fraud can have in boosting net earnings
  (c) The ease with which management can perpetrate the fraud before the outside auditors uncover it
Fictitious Accounts Receivable

- Fictitious accounts receivable are common among companies experiencing poor sales and with managers receiving commissions based on sales.
- The typical entry for fictitious accounts receivable is to debit (increase) accounts receivable and credit (increase) sales.
Fictitious Accounts Receivable (cont.)

Methods employed by corrupt management to create these fictional receivables are varied, but include:

- Invoices to fictitious or phony companies
- Phony invoices to legitimate companies
- Fraudulent arrangements with conspiring fraudulent customers
- Unsupported entries in the books of the company
Arithmetic of a Fictitious Accounts Receivable Fraud

- In the example shown on the next slide, corrupt management has added fictitious sales in the amount of $5,000, or 5 percent of revenues (see Improper Treatment of Sales, discussed earlier), with an offsetting entry to accounts receivable.
<table>
<thead>
<tr>
<th>Balance Sheet</th>
<th>Amount</th>
<th>Adjust</th>
<th>Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Receivable</td>
<td>$60,000</td>
<td>$5,000</td>
<td>$65,000</td>
</tr>
<tr>
<td>Allowance for Doubtful Accounts</td>
<td>10,000</td>
<td></td>
<td>10,000</td>
</tr>
<tr>
<td>Net</td>
<td>$50,000</td>
<td>$5,000</td>
<td>55,000</td>
</tr>
</tbody>
</table>

| Income Statement              |         |        |          |
| Sales                         | $100,000| $5,000 | 105,000  |
| Cost of Sales                 | 61,000  |        | 61,000   |
| Gross Profit                  | 39,000  |        | 44,000   |
| Selling Expense               | 10,000  |        | 10,000   |
| General and Administrative    | 19,000  |        | 19,000   |
| Total                         | 29,000  |        | 29,000   |
| Net Income                    | 10,000  | $5,000 | 15,000   |
Confirmation Procedures

- Confirmations:
  - Responses not timely or not at all
  - Responses are inaccurate
  - Foreign companies
  - Alternative procedures

- Fraudsters may:
  - Dissuade the auditor from pursuing
  - Cause confusion with promises that it is a temporary glitch
  - “Don’t mess with my customers and endanger my sales”
  - False confirmations provided
Allowances and Impairments

- Requirement to accrue losses on uncollectible receivables under FASB 5

- Requirement to record impairment of long-lived assets and goodwill under FASB ASC 360 and 350
Arithmetic of an Allowance for Doubtful Accounts Fraud

- In the example shown on the next slide, corrupt management has adjusted the allowance account from $10,000 down to $5,000, or 5 percent of revenues, with an offsetting entry to bad debts expense.
<table>
<thead>
<tr>
<th>Balance Sheet</th>
<th>Amount</th>
<th>Adjust</th>
<th>Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Receivable</td>
<td>$60,000</td>
<td></td>
<td>$60,000</td>
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<tr>
<td>Allowance for Doubtful Accounts</td>
<td>10,000</td>
<td>($5,000)</td>
<td>5,000</td>
</tr>
<tr>
<td>Net</td>
<td>$50,000</td>
<td>($5,000)</td>
<td>55,000</td>
</tr>
</tbody>
</table>

| Income Statement | | | |
| Sales | $100,000 | | 100,000 |
| Cost of Sales | 61,000 | | 61,000 |
| Gross Profit | 39,000 | | 39,000 |
| Selling | 10,000 | | 10,000 |
| General and Administrative | 19,000 | ($5,000) | 14,000 |
| Total | 29,000 | | 24,000 |
| Net Income | 10,000 | $5,000 | 15,000 |
Receivables Turnover

- Net sales/average net receivables
- Measures times accounts receivable balance is turned over during accounting period
- Uses both income statement and balance sheet accounts
- If fictitious sales, turnover will decrease (but beware of reclassifications)
Receivables Turnover—Possible Interpretations

- Slow (long average collection period)
  - Excessive bad debt exposure
  - Receivable overstatement
  - Misclassifications (includes non-trade A/R)
- Short (quick average collection period)
  - Overly stringent credit policy (limiting sales)
  - Revenue overstatement issues
- Inconsistency or significant variance in this ratio is a red flag
Collection Ratio (or Days in A/R)

- 365/receivable turnover ratio
- Gives average number of days required to collect receivables
- The lower the collection ratio (less days), the faster receivables are collected on average
Sales to Net Working Capital

- Sales/NWC
- High ratio
  - Favorable turnover of A/R and inventory (good!)
  - Efficient use of current assets (good!)
  - Could indicate inadequate short-term liquidity (bad!)
Sales to Net Working Capital

- Low Ratio?
  - Inefficient use of current assets
  - Seasonal fluctuations
  - High A/R at year-end due to introduction of new product lines near end of year
  - Overstatement of current assets or understatement of current liabilities
Compare to Other Companies

- Performance counter to others in the industry?
- Common sizing
  - Horizontal analysis
  - Vertical analysis
  - Ratio analysis

Example: Equity Funding (Insurance Industry)
Compare to the Actual Assets the Financial Statement Numbers Are to Represent

Example: Construction Company

- Observe the projects
  - Do they exist?
  - Percentage of completion?
Case Study—Raintree Healthcare Corporation

- Owned more than 50 healthcare facilities in 1996
- Listed on NASDAQ
- Filed for bankruptcy reorganization in May 1998
- Later changed company name from Unison to Raintree (help the public forget the past?)
Raintree Healthcare Corporation

SEC findings:

- Materially misleading quarterly reports—1996
  - Revenues—second quarter
    - Medicare revenue overstatement—$800,000 increase
  - Revenues and expenses—third quarter
    - Medicare revenue overstatement—$3.391 million
    - Expenses understated—$1.7 million
Raintree—Second Quarter

Original **time-stamped** computerized statements

- Controller (CPA) says $54,000 of income = $.00 per share per G/L
- CEO writes “what it takes” = $851,000 or $.26 per share on a second report

**Controller instructed to make $800,000 adjustment**

- Controller questions support and is uncomfortable with it
- Controller makes adjustment
Raintree—Second Quarter

The CFO says “this is the number we are going to report.”

- The number is in line with analysts’ expectations
- The financials are filed with the SEC on 10-Q and released
- Public reliance on accuracy
Raintree—Third Quarter

- Company completes a $100 million note offering
- Analysts estimated $.36 per share for third quarter
- Company’s published estimate was $.28 to $.31 per share
November 1996 meeting—CEO, CFO, Controller

- Actual results show a loss
- Controller is asked to leave the room (did not need to see how “sausage” was made)
- Controller returns and is given the “number”
- CEO—“Here’s the number we need to get to”
- CEO—“I don’t care how we get there”
Raintree—Third Quarter

- CEO and CFO would assume responsibility for the accuracy of the figures
- They provided no supporting documentation
- $3.391 million to revenue booked at their instruction
- Company needed more income than revenue addition would allow
- Controller “plugs” a $1.7 million expense reduction to allow hitting income target, to allow $.30 income per share ($1.227 million for the quarter)
Raintree—Later 1997 Restatements

- May 1997—Originally reported pre-tax income of $328,000 for nine months ending 9/96 is restated to a pre-tax loss of almost $15 million
- Restated pre-tax loss for all of 1996 was $31.794 million
- CFO and CEO fired
Raintree—Controller Responsibilities

- Aware of problems
- Knew support did not exist
- Uncomfortable with superior’s instructions
- Knew public reliance on accuracy
- Abdicated her responsibilities
- Made materially misleading statements to the auditors
- SEC accepts Offer of Settlement (in the public’s interest to do so)
- LESSONS? How would “principles-based standards” have stopped this fraud?
HealthSouth Fraud

- HRC intentionally overstated its earnings to match Wall Street analysts’ expectations and maintain the market price for HRC’s stock
- Earnings overstated $2.5 billion since 1997 (Woops! Add another billion or so!)
- Five CFOs plead guilty to fraud
- 20 people agreed to plead guilty since March 19, 2003
# HealthSouth Overstated Income

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>6 mos 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
<td>(191)</td>
<td>194</td>
<td>9</td>
<td>157</td>
</tr>
<tr>
<td>Reported</td>
<td>230</td>
<td>559</td>
<td>434</td>
<td>340</td>
</tr>
<tr>
<td>Misstated</td>
<td>421</td>
<td>365</td>
<td>425</td>
<td>183</td>
</tr>
<tr>
<td>% Misstated</td>
<td>N/A</td>
<td>188%</td>
<td>4,722%</td>
<td>119%</td>
</tr>
</tbody>
</table>
Red Flags of Accounts Receivable Fraud

- Recurring negative cash flows from operations or an inability to generate cash flows from operations while reporting earnings and earnings growth
- Significant declines in customer demand and increasing business failures in either the industry or overall economy
Red Flags of Accounts Receivable Fraud

- Assets, liabilities, revenues, or expenses based on significant estimates that involve subjective judgments or uncertainties that are difficult to corroborate
- Unusual increase in gross margin or margin in excess of industry peers
Red Flags of Accounts Receivable Fraud

- Unusual growth in the number of days’ sales in receivables
- Allowances for bad debts that are shrinking in percentage terms or are otherwise out of line with industry peers
Red Flags of Accounts Receivable Fraud

- Entries made in the company’s general ledger that were not made in the subsidiary ledger of customer accounts
- Large or unusual sales returns or allowances during the month immediately following the balance sheet date
Suggested Interview Questions
Business Combinations

- Requires the acquiring company to allocate the purchase price paid to acquire another company to the tangible assets, intangible assets, and liabilities of the acquired company (FASB ASC 805)

- Risks
  - Manipulate by under- or over-allocating to depreciable assets
  - Overstate liabilities and reserves “cushion”
Other General Concerns with Move to Fair Value—Fraud

Concerns

- It reopens the door to manipulation and possibly fraud by unscrupulous management
- A license for management to invent the financial statements
“It is the mark of an educated mind to rest satisfied with the degree of precision which the nature of the subject admits and not to seek exactness where only an approximation is possible.”

-Aristotle

What relevance to the world of fair value?
The Acquisition Method

- There are four steps:
  - Identifying the acquirer
  - Determining the acquisition date
  - Recognizing at their acquisition-date fair values the identifiable assets acquired, liabilities assumed, and any noncontrolling interests in the acquiree (with certain exceptions discussed later)
  - Recognizing goodwill or, in the case of a bargain purchase, a gain
Transaction Costs

- Direct acquisition costs are not included as part of the business combination accounting, but are accounted for separately.
- They are to be charged to expense when incurred.
- Typically include: investment banking fees, legal fees, accounting fees, valuation fees, and other professional or consulting services fees.
- Costs incurred related to the issuance of debt or equity securities to effect a business combination are not within the scope of 141R.
Intangible Assets

- Examples of intangible assets that meet the criteria for separability and contractual-legal:
  - Marketing-related intangible assets
  - Customer-related intangible assets
  - Artistic-related intangible assets
  - Contract-based intangible assets
  - Technology-based intangible assets

- Note. In-place workforce is not an intangible asset
  *(to be separately recognized)*

- Items that are not identifiable are subsumed into goodwill.
Some Typical Intangible Assets

- In-process research and development
- Trade names and trademarks
- Patents
- Copyrights
- Franchise agreements
- Trade secrets
- Distribution agreements
- Proprietary technology
- Covenants not-to-compete
- Assembled and trained workforce (part of GW FAS 141 Par 39)
- Books, movies, songs
- Customer relationships

See FAS 141 Appendix A, Par. A14 for a more complete listing of intangible asset examples.
Items That Are Not Identifiable

- The acquirer **subsumes into goodwill** the value of an acquired intangible asset that is **not identifiable** as of the acquisition date.
  - Potential contracts
  - **Assembled workforce** (but we may value it as a step in determining the value of other intangible assets under the multi-period excess earnings method)
Determine Appropriate Methodology to Estimate Fair Value

- **Market Approach**
  - Considers information from sales of similar assets
  - Almost impossible to identify individual sales of intangible assets

- **Income Approach**
  - Most robust approach for income-producing intangibles
  - Focuses on cash flow directly attributable to the intangible asset being valued

- **Cost Approach**
  - Considers cost to recreate asset
  - Typically used for intangible assets where there is no direct cash flow generation
Sensitivity Analysis

- Sensibility analysis (sanity check)
- How does valuation model output vary with changes in key assumptions?
- Which assumptions (inputs) are the most sensitive to small changes?
Sensitivity Analysis
## Sensitivity Example

<table>
<thead>
<tr>
<th>Term</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal Cash Flow</td>
<td>$ 3,500,000</td>
</tr>
<tr>
<td>Rate of Return - WACC</td>
<td>14%</td>
</tr>
<tr>
<td>Growth Rate</td>
<td>4%</td>
</tr>
<tr>
<td>Correct Terminal Value</td>
<td>$ 35,000,000</td>
</tr>
<tr>
<td>PV Factor (five year projection)</td>
<td>0.5194</td>
</tr>
<tr>
<td>Present Value of IC</td>
<td>$ 18,179,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Term</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of Return - WACC</td>
<td>13%</td>
</tr>
<tr>
<td>Growth Rate</td>
<td>5%</td>
</tr>
<tr>
<td>As Calculated</td>
<td>$ 43,750,000</td>
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<tr>
<td>PV Factor (five year projection)</td>
<td>0.5428</td>
</tr>
<tr>
<td>Present Value of IC</td>
<td>$ 23,747,500</td>
</tr>
<tr>
<td>Variance</td>
<td>$ 5,568,500</td>
</tr>
</tbody>
</table>

31% Increase
Sensitivity of DCF

- Discount rate
  - Factors
  - Capital structure (leverage) impact on WACC
- Terminal value multiples
- Growth rates
  - Interim periods
  - Terminal value calculation
    - Growth rate as a % of rate of return
- Cost behavior
  - Fixed v. variable cost assumptions
Fixed Assets

The more common schemes are as follows:

- Fictitious fixed assets
- Misrepresenting fixed asset costs
- Understating assets
- Capitalizing unrelated cost of assets
FAS 144 (ASC 350 and 360)—Impairment Testing for Long-Lived Assets

- This statement retains the requirements of Statement 121 to (a) recognize an impairment loss only if the carrying amount of a long-lived asset is not recoverable from its undiscounted cash flows and (b) measure an impairment loss as the difference between the carrying amount and fair value of the asset.
- The recognized impairment reduces the carrying value of the asset.
COMPANY EXAMPLE: LINCOLN SAVINGS

- Land flipping
- Happened near end of quarters
- Pay inflated prices
- Sell at higher price to "straw buyer"
- Related company makes the loan to the buyer for down payment
- Lincoln records note receivable for balance
- Recognizes gain on asset sale
COMPANY EXAMPLES

- WORLDCom
  - Capitalization of line costs
- Waste Management
  - Combined schemes
- HealthSouth
  - Pick a scheme!!
WorldCom Capitalization Scheme

- Telecommunications industry in severe slump
  RED FLAG
- Around July 2000, expenses as a percentage of its total revenue began to rise RED FLAG, putting the company at risk of not meeting analysts’ expectations
- 1999 to 2000—Line costs as a % of revenue were less than 42%
- 2001—Line costs were actually 50% of revenue
- Solution? CAPITALIZE!!
CFO.com: “Line costs as a percentage of revenue were rising. Those numbers were carefully monitored by Wall Street.” RED FLAG

Forensic Accountant: “The growth of the balance sheet (RED FLAG) should have tipped off Arthur Andersen.”
WorldCom Fraud Restatement

- “Mother of all audits”
  - 1,500 people working on restatements
- Sorry state of records
- “Post it notes” in lieu of proper documentation for entries
- More than 3 million new or revised entries to correct the books
Waste Management Schemes

- Avoided depreciation on garbage trucks
  - Depreciable lives
  - Salvage values
- Decrease in value of landfills not recorded
- Cost of abandoned projects not expensed
- Improper capitalization
- Improper reserve utilization
- Netting of operating expenses against unrelated one-time gains
- Geography (another new term!)—move dollars between various lines on the income statement
Just for Feet—Collusion

- Fictitious Co-Op Revenue (Vendor assistance on advertising)
  - False statements (confirmations) by vendor reps. to the auditors
    - $19.4 million
  - Vendors refusing to make false statements
    - $13.2 million

- Round-trip transactions
  - Sales booths billed to the company by vendor, then a merchandise credit was issued for the same amount
  - Result? A DEBIT to fixed assets rather than a DEBIT to cost of sales
  - Booths were previously received without charge
  - $9 million fraud
Just for Feet—Collusion

- Retaliation against uncooperative vendor
  - JFF owed $600,000 to vendor for merchandise
  - Would not pay it until it got a fake invoice for $600,000 for booth assets
  - Vendor finally complied
    - Fake invoice provided to auditor to support booth asset purchases
HealthSouth—Sunny Surface

- Overall operations looked normal
- Revenue and cash flow numbers, in comparison to prior periods, seemed reasonable, \textit{BUT}
  - Hard to compare to other companies
  - Hard to compare to self over time
    - Constant acquisitions
    - Unique mix of facilities (in-patient and out-patient)
  - Impeccable corporate policies on paper
    - Non-retaliation policy
    - Compliance Director had direct access to Board
    - Centralized finance function
Centralized Finance Function (+) or (-)?

- Controls fraud in the field locations (+)
- Increases likelihood of centralized fraud (-)
  - Accounting systems in the field did not interface corporate-level systems (Same as WorldCom)
  - Internal audit staff reviewed only field numbers and not consolidated numbers or systems
HealthSouth—Analytical Symptoms (Comparison to Industry)

A Wall Street analyst said this morning in Richard Scrushy’s fraud trial that he noticed an unusually high level of capital expenditures listed in HealthSouth’s 2002 financial reports. (RED FLAG)

A.J. Rice of Merrill Lynch testified that he thought it was curious that HealthSouth’s outlay of money to acquire or improve assets was running twice as high as similar health care companies that year. (RED FLAG)

-03/10/05 www.al.com
HealthSouth—Improper Accounting Entries

Accounting expert Harvey Kelly told jurors at the Richard Scrushy fraud trial that the “naked” making up of numbers—not sophisticated financial sorcery—accounted for most of the nearly $2.7 billion of fraud.

(Can also involve simple schemes repeated thousands of times)
HealthSouth—Improper Accounting Entries

- Large dollar amounts RED FLAG
- Generic or non-descriptive explanations RED FLAG
- Lack of contemporaneous documentation RED FLAG
- Extraordinarily long entries (200+ lines) RED FLAG
- Booked by external uploads in final runs RED FLAG
- Affected unrelated accounts (no logical connections between accounts) RED FLAG
- “Coded” letter prefixes assigned to allow fraudulent entries to be internally spotted
- Self-reversing entries
- Run through intercompany accounts and suspense accounts RED FLAG
HealthSouth—Improper Accounting Entries

- AP SUMMARY entries in fixed assets
  - Dollar in entries exceeded the cost of assets the facility would buy RED FLAG
HealthSouth—Improper Accounting Entries

“Coded” letter prefixes assigned to allow fraudulent entries to be internally spotted
Useful Ratios for Fixed-Asset Analysis
Sales to Fixed Assets and Total Assets

- Sales/FA
- Sales/TA

Efficiency—How efficiently a company is using its assets to generate sales

Subject to misinterpretation based on age and NBV of assets in comparisons to other companies

- Are others leasing more assets?
- Are company assets comparatively new?
Sales to Fixed Assets and Total Assets

- If ratio is lower than industry or falling over several periods, it can indicate:
  - Presence of non-operating assets
  - Idle assets (unproductive)
  - Fraudulent overstatement of fixed assets (WorldCom)
  - Falling demand, failed products
Red Flags of Fixed-Asset Frauds

- Allowances for bad debts, excess and obsolete inventory, and similar situations that are shrinking in percentage terms or are otherwise out of line with industry peers
- Unusual change in the relationship between fixed assets and depreciation
Red Flags of Fixed-Asset Frauds

- Adding to assets while competitors are reducing capital tied up in assets
- Increasing fixed assets that do not result in increased sales, capacity, or efficiencies
Red Flags of Fixed-Asset Frauds

- Abandoned or unused fixed assets included in the fixed-asset accounts
- Assets acquired from a related party
- Basis for allocation of fixed assets in a merger is not supported through proper documentation and/or valuations
Suggested Interview Questions

[Image of two people in a meeting]
Forensic Accounting
Investigative Techniques

- Recording inventory manufacturing costs, research and development costs, maintenance expenses, interest expenses, start-up costs, or other operating expenses as property and equipment
- Buying personal assets for the owner-manager or an executive to own and then recording them as company assets
Forensic Accounting
Investigative Techniques (cont.)

- Understating depreciation
- Not removing disposed assets from the books
- Failing to write down impaired assets
Other Asset Classifications
Overstatement of Cash and Short-Term Investments (Including Marketable Securities)

It is generally quite hard to overstate cash, because cash balances can be easily confirmed with banks and other financial institutions.
Overstating Cash

- Usually difficult to do
  - Easy to corroborate (confirm/reconcile)

- BUT!!!
  - Can be collusion
  - Documents can be falsified
COMPANY EXAMPLE: PARMALAT

- Assets overstated by $4.9 billion
- Liabilities understated by $3.6 billion
- Bogus confirmation on assets of a subsidiary
  - $4.9 billion forged confirmations (a very good forgery!)
HealthSouth Fraud

- Asset overstatements
  - Cash ($300,000,000 or so)
  - Receivables
  - Fixed assets
- Revenues, contractual adjustments
- Falsified and altered invoices
- NYT Article—300,000 falsified bookkeeping entries, calculated to avoid detection (complicated audit trail)
The company admitted that what was reported as cash on its balance sheet “... is not now, and may never have been, in the company's possession.”
EXAMPLE—ENRON

Mark to market rules for securities
(Highly complicated derivative-based securities)

- Good when securities are increasing in value (record gains!)
- When market declines began, securities were shifted to SPEs