Chapters 3 and 4 – Accounting Analysis (HP)

**Key Learning Outcomes:**

- Develop an understanding of the institutional environment and framework under which financial reporting standards are set, monitored and enforced.
  - This (potentially) provides the analyst an “intuitive” foundation to understand the purpose, philosophy, potential benefits and pitfalls of information presented in financial reports.
- Understand what is meant by quality of accounting information. Identify factors that enhance and limit the quality of financial reports.
- Develop qualitative and quantitative methods to measure and evaluate the quality of financial information (financial statements).

**Accounting Analysis**

- You will have tools to perform a sound/structured accounting analysis.
- An appreciation for the potential value created by a proper accounting analysis will be gained.
- Be able to explicitly link the focus of an accounting analysis to the outcomes of the five forces industry classification and identification of key success factors (Value Drivers, items that yield competitive advantages).
Accounting Analysis

The Financial Reporting Framework

- **Management Discussion and Analysis Section**
  - Not Audited but provides explanation and insight (potentially)
- **Income Statement**
  - Measures Accomplishments over the financial period (Accrual Accounting)
- **Balance Sheet**
  - Cumulative statement of financial position at a given point in time
  - Resources owned or controlled and how they were financed in aggregate
- **Statement of Cash Flows**
  - Functional classification of Sources and Uses of Cash
  - CFFO (cash flow analog to earnings; CFFI (Increase/Decrease Capacity); CFFF (capital structure management)
- **Footnotes to Financial Statements**
  - Disaggregation and Potentially useful details
- **Audit Opinion**
  - Indicates proper processes/procedures followed. Doesn’t say numbers correct

Five Accounting Building Blocks (Conceptual Definitions)

- **Revenues (credit balance)**
  - Earned as the result of a completed exchange transaction where title passes
- **Expenses (debit balance)**
  - Economic sacrifices occurring in current period or the expiration of an asset
- **Assets (debit balance)**
  - Resources owned or controlled that resulted from an exchange transaction. Should provide a future economic benefit.
- **Liabilities (credit balance)**
  - Legally and contractually enforceable obligations that will require the future sacrifice of assets
- **Equity (credit balance)**
  - Net assets or owner’s residual capital from bankruptcy (legal) perspective.
- **Comprehensive Income Adjustments**
  - Recognized but unrealized gains/losses on financial assets and liabilities.
Responsibility for Accounting Choices by the Firm

- CEO vs. CFO vs. Controller vs. Board of Directors
  - Post Sarbannes-Oxley holds all parties legally responsible (fines and jail)

Responsibility for Setting Accounting Standards in US

- SEC (legal authority)
- FASB (delegated authority in US)
- IASB (accounting law in some countries; now part of GAAP in US)
  - Promotes comparability across countries and provides minimum quality standard

Purpose and Limitations of Audits

- Ensure general compliance with GAAP
- Assess system of internal control
- Improves quality and credibility of financial statement data
- Is not designed to detect fraud

Audit Failure

- Unintentional Negligence or Inability to detect departures
- Conflicts of Interest (Management Services and Audit Clients)

Factors Influencing Accounting Quality

- Definitions of Accounting Quality
  - High quality accounting disclosure allows users to form an unbiased assessment of reported performance and forecast future performance
  - High quality accounting disclosure reduces the standard deviation of estimates/assessments (noise).
  - Graph how this appears

Impact of Flexibility of accounting (GAAP) choice

- Tradeoffs of disclosure vs. manipulation and informativeness

Sources of Noise and Bias in Accounting Data

- Inadequate Accounting Rules (conservatism problem)
- Forecast Errors (inaccurate estimates)
- Factors Affecting Managers’ Accounting Choices (Incentives)
  - Debt Covenants; Compensation; Corporate Control
  - Income Taxes; Regulatory Concerns; Capital Market Perceptions; Competitive Considerations (Segments, etc.)
Accounting Analysis

Qualitative Assessment of Accounting Quality

- Qualitative Issues
  - Adequate management discussion to assess business strategy and economic consequences?
  - Sufficient Detailed Disclosure in Supplemental Footnotes (key accounting policies; assumptions; departures from norm; levels of dis-aggregation; voluntary disclosure)?
  - Sufficient disclosure of restrictions (compliance) that limit interpretations?
  - Quality of Segment Reporting
  - Mix and timeliness of disclosing good and bad news?

- Other Quality Indicators
  - GAAP Quality (do standards get in the way) and Audit Quality (audit failure?)
  - Choice of GAAP (firms accounting choice: aggressive or conservative)
  - Transaction Timing Quality (Revenue and Expense Timing)
    - Channel Stuffing (massive end of year shipments)
    - Defer discretionary expenditures
    - "Big Bath" – Massive Write-offs when market expects bad news
  - Disclosure (disaggregation) quality

Structure of the Formal Accounting Analysis (Draft 2)

1. Identify Key Accounting Policies
   a. "Type 1" Key Accounting Policies (Separately Identify)
      - Related to Key success factors identified in Draft 1
      - Disclosure related to value-added business activities determined in Draft 1
      - Analyze this disclosure on an absolute and relative basis (benchmark to the industry)
   b. "Type 2" Key Accounting Policies
      - Related to "Significant Items" on Income Statement and Balance Sheet that managers have a high degree of flexibility (GAAP) or influence on.
      - Potentially distortive disclosure is associated with these items. Can materially affect users view of balance sheet or income statement.
      - Foreign Currency, Pensions, Goodwill, other intangibles, Leasing Activities, Special Purpose Entities, etc.

2. Assess Degree of Potential Accounting Flexibility
   a. This relates to those items YOU find important in item 1
   b. Primarily relates to "Type 2" Key Accounting Policies

3. Evaluate Actual Accounting Strategy
   - How conservative/aggressive is the company in reporting and measuring to the Type 2 Key Accounting Policies.
   - How conservative or aggressive is the company relative to its competitors.
   - Is this (are these) material and significant amounts?
   - How would alternative treatment affect financial reports?
Accounting Analysis

Structure of the Formal Accounting Analysis (Draft 2)

1. Evaluate Actual Accounting Strategy - Examples
   - How would alternative treatment affect financial reports?
     - Ratio of Goodwill to PPE (restate if > 20%); Percent of Operating income that would be lost when amortizing goodwill over 5 years (restate if > 20%).
     - Relationship between the present value of operating leases and Long-Term debt. Effect on credit-worthiness if operating leases were capitalized. (Restate if > 20%)
     - What percent of operating expense and sales is R&D. What would impact on financials be if R&D were capitalized and then “amortized” over 5 years? (if R&D > 20% sales then capitalize in restatement).
     - How reasonable are pension plan assumptions (if a defined benefit plan)? Look at discount rates, growth rate in costs and plan assets. How do discount rate assumptions match interest rates over same time period?

2. Evaluate the Quality of Disclosure (qual. and quant.)
   - Qualitative relates to your analysis of items 1-3 and to the level of disclosure provided in relation to those items you find to be valuation relevant (segments, breakdown of information into details, assumption regarding growth and discount rates, etc)

Accounting Analysis

Structure of the Formal Accounting Analysis (Draft 2)

5. Undo Accounting Distortions
   - When distortive thresholds are exceeded, then restate the income statement and balance sheets (5 historical years).
   - Prepare separate schedules for items such as Goodwill restatement, Operating Lease restatement, Research and Development restatement.
   - Prepare and adjusted trial balance (debits and credits on both income statement and balance sheet accounts). There is no such thing as a balance sheet trial balance.
   - Prepare adjusting entries that are consistent with the schedules created in Part B of the process.
   - Once your trial balance is in balance, then prepare Restated income statements and Restated balance sheets.
   - Write up an analysis as to how the restatements affect your view of the firm.
1) Which of the following is correct regarding accrual accounting?
   a) Accrual accounting is the information basis of inputs for most classical finance models
   b) Accrual accounting attempts to measure the period in which cash flows occur
   c) Accrual accounting attempts to measure economic activities in the period exchange transactions take place, regardless of when cash flows transpire.
   d) Accrual accounting forces land acquisitions to be recorded at historical cost.

1. An industry having a high degree of price competition would be characterized by:
   a) Low Industry Concentration, Low Legal Barriers to Entry, Low Product Differentiation
   b) Few Exit Barriers, Low First mover advantage, Low Product Differentiation
   c) High Industry Concentration, High Distribution Access, Low Firm Excess Capacity
   d) Low Concentration, Low Fixed-Variable Cost Ratio, Few Legal Barriers to Entry
   e) Supply < Demand, Low First Mover Advantage, High Fixed to Variable Cost Ratio

Acquirer Company buys Target Company. Target’s pre-acquisition balance sheet at historical cost showed Total Assets at $730,000 and Total Liabilities at $420,000. Upon acquisition, Acquirer revalued Target’s assets at $1,280,000 and liabilities at $675,000. In addition, Acquirer recognized $660,000 of new Goodwill associated with the acquisition of Target. Determine the amount of Acquirer paid for Target.

Historical Cost BS: $730,000 = $420,000 + $310,000 (A=L+E)

MV BS: (Debits still need to equal Credits)

MV Identified Assets = $1,280,000 (Debit)
MV of Goodwill = $660,000 (also a Debit)  Total “Debits” = $1,940,000
MV Liabilities = $675,000 (Credit)

**MV Equity** reflects the price Paid (Credit) (this is plug to make balance sheet balance).
Accounting Analysis

Workshop Material for Case and Exams - Problem 4 – Overs and Unders (10 Points)

<table>
<thead>
<tr>
<th></th>
<th>The company failed to write down a 50% impairment of inventory</th>
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<tbody>
<tr>
<td>1</td>
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<tr>
<td>2</td>
<td>The company used too large a discount rate in estimating capital lease assets and liabilities</td>
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<td>3</td>
<td>AOL capitalized CD production and distribution costs related to mailed free-trial subscriptions</td>
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<td>4</td>
<td>Regular equipment maintenance expenditures were recognized as capital improvements to the assets</td>
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<tr>
<td>5</td>
<td>The company failed to recognize foreign currency gains related to international sales transactions</td>
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<table>
<thead>
<tr>
<th></th>
<th>Assets</th>
<th>Liabilities</th>
<th>Equity</th>
<th>Revenues</th>
<th>Expenses</th>
<th>Net Income</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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Accounting Analysis

Main Exam Problem – Restating Financial Statements (50 Points)

• Download the excel spreadsheet with financial information for Google. This information comes directly from GOOGLE’s annual 10-K’s for the years 2009, 2010 and 2011. You are provided Goodwill, Operating Lease and Research and Development expense or activity information.

• Your mission is to restate the financial report in order to provide an alternative view of the impact of Goodwill, Operating Leases and R&D of the financial condition of the firm.

• After restating the financials, provide brief responses to basic questions regarding how these restatements impact your view of Google.

• Your working assumptions are that all Lease contracts are signed (renewed) on December 31.

• Mergers and Acquisitions are assumed to take place on the last day of the year and the competitive advantage captured by Goodwill is assumed to have a 10-year useful life.

• Research and Development activities are presumed to take place continuously throughout the year. The R&D cycle is assumed to be 4 Years for firms in Google’s industry.

• Required: (all work is Pre-Tax) – You may take this page home!!!
Accounting Analysis

Required: (all work is Pre-Tax) – You may take this page home!!

• On the excel spreadsheet, prepare a capitalization of lease schedule for the Operating Leases disclosed on the 2009 and 2010 10-K’s. Be sure to show the amortization of the capitalized lease. Use a separate worksheet tab for each year. Be sure to also identify annual depreciation and interest expense.

• Prepare, on a separate tab in the worksheet a Goodwill amortization schedule for 2009 through 2016. You should clearly identify both the annual adjusted (restated) balances of Goodwill and the annual adjustment (impairment or amortization) for restated goodwill.

• Prepare, on a separate tab the adjustments for R&D if you were to capitalize R&D activities and then amortize the R&D assets in a manner consistent with the assumptions.

• Prepare the trial balance adjusting entries for 2009 and 2010 related to Goodwill, R&D and Capitalizing Operating Leases. Add accounts as you need.

• Prepare a restated income statement and balance sheet that reflects your work for 2009 and 2010.

• Briefly comment (below) how these restated financials affect your view of Google’s operating profitability and capital structure risk as compared with the presentation under traditional “as-stated” GAAP financial reports.

4. AMR, the parent of American Airlines, provides the following footnote information:

AMR’s subsidiaries lease various types of equipment and property, primarily aircraft and airport facilities. The future minimum lease payments required under capital leases, together with the present value of such payments, and future minimum lease payments required under operating leases that have initial or remaining noncancelable lease terms in excess of one year at December 31, 2005, were (in millions):

<table>
<thead>
<tr>
<th>Year Ending December 31,</th>
<th>Capital Leases</th>
<th>Operating Leases</th>
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</thead>
<tbody>
<tr>
<td>2006</td>
<td>$263</td>
<td>$1,065</td>
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<tr>
<td>2007</td>
<td>196</td>
<td>1,039</td>
</tr>
<tr>
<td>2008</td>
<td>236</td>
<td>973</td>
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<tr>
<td>2009</td>
<td>175</td>
<td>872</td>
</tr>
<tr>
<td>2010</td>
<td>140</td>
<td>815</td>
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<tr>
<td>2011 and thereafter</td>
<td>794</td>
<td>7,453</td>
</tr>
</tbody>
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Less amount representing interest
Present value of net minimum lease payments

$1,084
$12,217
$1,088
AMR further disclosed that “lease terms vary but are generally 10 to 25 years for aircraft and seven to 40 years for other leased property and equipment.” Assuming that all leases are for aircraft with an average lease term of 15 years, what interest rate does AMR use to capitalize its capital leases? Use this rate to capitalize AMR’s operating leases at December 31, 2005. Record the adjustment to AMR’s balance sheet to reflect the capitalization of operating leases. How would this reporting change affect AMR’s Income Statement in 2006?