Reasons for Variation Between Companies in Financial Statement Results (1)

- An income statement conveys the results of operations of a company for a particular period of time, whereas a corporate balance sheet depicts the financial position of a company at a specific point in time.
- Across companies and across countries, financial results reported in those two primary financial statements may vary for a number of reasons.
- One main reason for the variation is due to the characteristics of the industries in which the companies operate.
- For example, some industries are dependent on large investments in property, plant, and equipment (PP&E) to conduct their business.
- Other industries are people-intensive and require little high-cost, tangible-asset infrastructure.
- In some industries, the market is conducive to pricing policies that result in relatively high margins while others are not.
Reasons for Variation Between Companies in Financial Statement Results (2)

- Different management strategies may also account for some of the variation in financial results between companies.
- Some corporate managers prefer to finance assets with borrowed funds, while others avoid such leverage and choose to finance assets with the owners’ invested capital.
- In other instances, companies may differ in regard to the credit arrangements they enter into with their customers—some preferring short-term debt over long-term debt and/or lessor financing over bank borrowing.
- Similarly, some companies may choose to grow primarily through the acquisition of other companies, while others prefer to grow through the expansion of existing product portfolios.

Reasons for Variation Between Companies in Financial Statement Results (3)

- Of course, another reason for some of the variation in reported financial results between companies is the differing competencies of management.
- Given the same industry characteristics and the same management strategies, different companies may report different financial results simply because their managements are more or less successful in executing plans, seizing opportunities, and avoiding problems.
Reasons for Variation Between Companies in Financial Statement Results (4)

- A fourth reason contributing to differences between balance sheets and income statements pertains to the underlying accounting methods used by companies.
- As an example, one company may choose to account for its inventory using the last in, first out (LIFO) method, while a competitor may use first in, first out (FIFO).
- In such a situation, both sets of financial statements would differ even if actual operating events and performance were the same.
- Moreover, when comparing companies domiciled in different countries, it is sometimes not a mere matter of management choosing one accounting method over another, differences in accounting methods may be due to different country regulations.

Reasons for Variation Between Companies in Financial Statement Results (5)

- Another possible root cause for financial statement variation across companies, and in particular across country borders, pertains to the different contexts wherein companies operate, and the basic role companies have in those contexts.
- For example, it may be argued that a Swedish company operates in a much more egalitarian, socialistic context and manner than an American company.
- Therefore, employee job security and employee benefits may be of a different type and magnitude for the Swedish company with a commensurate differential effect on the personnel-related financial statement accounts.
Reasons for Variation Between Companies in Financial Statement Results (6)

- Any one, or any combination, of those factors can contribute to the different financial results depicted in the corporate balance sheets and income statements.
- For the purposes of this exercise, let us rule out differences in legislated accounting principles as a source of the differences in financial results.
- Indeed, all of the financial data presented in Exhibit 1 is the result of applying U. S. generally accepted accounting principles.
- Thus, the differences in the financial results depicted in Exhibit 1 are attributable to various combinations of the other factors.
- Without knowing any more details of the companies than those depicted in Exhibit 1, it is difficult to ascribe the financial result differences to anything other than industry characteristics and, to some degree perhaps, country context.
- For this exercise, it is best to primarily contemplate industry characteristics as the primary reason for the financial differences.

The Use of Financial Ratios

- The differences in industry characteristics, in company policies, and in management performance are reflected in the financial statements published by publicly held companies, and can be highlighted through the use of financial ratios.
10 Different Companies

- Auto manufacturing (Germany) -- Daimler-Chrysler
- Bank (Panama) -- Banco Latinoamericano de Exportaciones S.A.
- Business process outsourcing (India) -- Tata Consultancy Services Ltd.
- Discount general-merchandise store chain (United States) -- Wal-Mart Stores, Inc.
- Electric utility (Germany) -- E.ON AG
- Healthcare & lifestyle technology and products (Netherlands) -- Philips Group
- Integrated oil/gas, coal mining, and chemical company (South Africa) -- Sasol Ltd.
- Internet retailer (United States) -- Amazon.com
- Low-fare airline (Ireland) -- Ryanair Holdings, Plc.
- Pharmaceutical (Switzerland) -- Actelion Ltd.

### Exhibit 1: INTERNATIONAL RATIOS TELL A STORY— 2005

<table>
<thead>
<tr>
<th>Year end</th>
<th>March</th>
<th>June</th>
<th>Dec</th>
<th>March</th>
<th>June</th>
<th>Dec</th>
<th>January</th>
<th>Dec</th>
<th>March</th>
<th>Dec</th>
<th>Dec</th>
<th>March</th>
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<th>March</th>
<th>Dec</th>
<th>Dec</th>
<th>March</th>
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</thead>
<tbody>
<tr>
<td>Assets:</td>
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<tr>
<td>Cash</td>
<td>42.0%</td>
<td>3.3%</td>
<td>15.6%</td>
<td>3.8%</td>
<td>4.6%</td>
<td>54.1%</td>
<td>55.3%</td>
<td>5.4%</td>
<td>11.9%</td>
<td>7.3%</td>
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</tr>
<tr>
<td>Accts. receivable</td>
<td>0.5%</td>
<td>14.6%</td>
<td>15.2%</td>
<td>3.8%</td>
<td>1.4%</td>
<td>7.4%</td>
<td>22.1%</td>
<td>41.6%</td>
<td>6.5%</td>
<td>81.2%</td>
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</tr>
<tr>
<td>Inventory</td>
<td>0.7%</td>
<td>12%</td>
<td>10.3%</td>
<td>9.5%</td>
<td>24.5%</td>
<td>19.3%</td>
<td>151%</td>
<td>6.7%</td>
<td>1.9%</td>
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<tr>
<td>Other CA</td>
<td>0.3%</td>
<td>8.2%</td>
<td>7.1%</td>
<td>29.1%</td>
<td>1.3%</td>
<td>24.7%</td>
<td>17.1%</td>
<td>15.1%</td>
<td>8.7%</td>
<td>0.5%</td>
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<tr>
<td>Total current assets</td>
<td>43.9%</td>
<td>30.1%</td>
<td>44.6%</td>
<td>37.2%</td>
<td>32.0%</td>
<td>79.2%</td>
<td>82.7%</td>
<td>62.8%</td>
<td>29.1%</td>
<td>88.5%</td>
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<tr>
<td>Net PPE</td>
<td>55.1%</td>
<td>57.9%</td>
<td>14.5%</td>
<td>35.2%</td>
<td>57.0%</td>
<td>9.4%</td>
<td>1.0%</td>
<td>22.2%</td>
<td>32.7%</td>
<td>0.1%</td>
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<tr>
<td>Goodwill</td>
<td>0.9%</td>
<td>2.5%</td>
<td>8.7%</td>
<td>0.9%</td>
<td>9.0%</td>
<td>4.3%</td>
<td>0.8%</td>
<td>0.9%</td>
<td>12.1%</td>
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<tr>
<td>Other</td>
<td>0.1%</td>
<td>9.4%</td>
<td>32.8%</td>
<td>26.7%</td>
<td>2.0%</td>
<td>7.0%</td>
<td>0.4%</td>
<td>14.1%</td>
<td>25.1%</td>
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<tr>
<td>Total assets</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
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</tbody>
</table>

| Liabilities: |       |      |     |       |      |     |         |     |       |      |     |       |      |     |       |      |     |       |      |
| Accts. payable | 2.4% | 6.4% | 11.4% | 7.2% | 18.0% | 37.0% | 9.5% | 5.6% | 4.2% | 331% |
| ST debt | 0.3% | 6.7% | 3.4% | 18.1% | 6.5% | 0.1% | 0.0% | 34% | 13.5% | 241% |
| Other | 14.5% | 7.9% | 15.8% | 17.5% | 11.2% | 15.2% | 15.1% | 21.4% | 14.2% | 3.5% |
| Total current liabilities | 17.1% | 21.0% | 30.6% | 42.8% | 35.7% | 52.2% | 24.6% | 30.3% | 19.8% | 60.7% |
| LT debt | 33.7% | 15.4% | 9.8% | 22.0% | 19.7% | 41.2% | 24.4% | 3.0% | 8.3% | 16.9% |
| Other | 6.7% | 12.7% | 10.3% | 17.0% | 3.6% | 0.0% | 7.8% | 37.7% | 2.7% |
| Total liabilities | 57.6% | 49.1% | 50.8% | 81.9% | 58.9% | 93.3% | 54.8% | 34.6% | 64.9% | 80.3% |

| Equity: |       |      |     |       |      |     |         |     |       |      |     |       |      |     |       |      |     |       |      |
| Equity: Preferred stock | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Common stock | 15.1% | -0.4% | -7.6% | 5.4% | 2.4% | 61.3% | 56.7% | 45.1% | 10.5% | 12.8% |
| Retained earnings | 27.3% | 51.3% | 56.8% | 12.7% | 38.7% | 54.7% | -11.5% | 20.3% | 24.6% | 6.8% |
| Total equity | 42.4% | 59.9% | 49.2% | 18.1% | 41.1% | 6.7% | 45.2% | 62.4% | 35.1% | 19.7% |
| Total liab. & equity | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

| ROA | 21.2% | 14.5% | 9.4% | 1.9% | 3.6% | 4.2% | 18.9% | 21.1% | 14.3% | 48.6% |
| ROE | 0.35 | 0.84 | 0.90 | 0.74 | 2.40 | 2.30 | 0.99 | 1.99 | 0.41 | 0.04 |
| Asset turnover | 7.4% | 12.0% | 6.5% | 1.4% | 9.5% | 9.7% | 13.6% | 42.0% | 5.5% | 23.5% |
| Financial leverage | 2.36 | 1.96 | 2.03 | 5.53 | 2.43 | 15.02 | 2.21 | 1.53 | 2.85 | 5.08 |
| Current ratio | 17.4% | 23.9% | 17.2% | 7.8% | 20.8% | 145.9% | 39.0% | 64.2% | 16.7% | 12.3% |
| Receivables collection | 2.57 | 1.44 | 1.46 | 0.87 | 0.90 | 1.52 | 3.36 | 2.93 | 1.47 | 1.46 |
| Inventory turnover | n/a | 4.2 | 5.9 | 6.4 | 7.5 | 11.4 | 2.5 | n/a | 16.6 | 5.8 | 80.14 |
| Gross margin | n/a | 39.7% | 32.3% | 17.9% | 22.9% | 24.0% | 89.9% | n/a | 21.3% | 38.7% |
| Dividend payout | 0.0% | 29.2% | 17.6% | 55.3% | 21.6% | 0.0% | 0.0% | 17.4% | 20.9% | 125.9% |
Case Instructions

- Study the balance sheet profiles and the financial ratios listed for each of the 10 companies as presented in Exhibit 1.

- Your assignment is to match each column in the exhibit with one of the industries listed above.

- You are to prepare (at least) 10 PPT slides, each presenting a match (between an industry and a balance sheet column) and the reasons for that match (paying particular attention to the ratios).

- Be prepared to give the reasons for your pairings, citing the statistics that seem to be consistent with the characteristics of the industry you selected.

- Ours is not a perfect world, however, and for our discussion it will be helpful if you will also identify those pieces of data that seem to contradict the pairings you have made.

Ratios (1)

1. ROS (return on sales) = \frac{\text{Net Income}}{\text{Net Sales}}

2. Asset Turnover = \frac{\text{Net Sales}}{\text{Avg. total assets}}

3. ROA (return on assets) = \frac{\text{Net Income}}{\text{Avg. Total Assets}}
or = \text{ROS} \times \text{Asset Turnover}
### Ratios (2)

1. **Financial Leverage**
   \[
   \text{Financial Leverage} = \frac{\text{Net Income}}{\text{Avg. Total Owners' Equity}}
   \]

2. **ROE (return on equity)**
   \[
   \text{ROE} = \frac{\text{Net Income}}{\text{Avg. Total Owners' Equity}}
   \]
   or
   \[
   \text{or} = \text{ROA} \times \text{Financial Leverage}
   \]

3. **Current Ratio**
   \[
   \text{Current Ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}
   \]

### Ratios (3)

1. **Receivables collection**
   \[
   \text{Receivables collection} = \frac{\text{Avg. Accts Receivable}}{\text{Net Sales/365 days}}
   \]

2. **Inventory turnover**
   \[
   \text{Inventory turnover} = \frac{\text{Cost of Goods Sold}}{\text{Avg Ending Inventory}}
   \]

3. **Gross margin**
   \[
   \text{Gross margin} = \frac{\text{Net Sales - Cost of Goods Sold}}{\text{Net Sales}}
   \]
10. Revenue growth  
\[ \text{Revenue growth} = \frac{\text{This year's Net Sales} - \text{Last year's Net Sales}}{\text{Last year's Net Sales}} \]

11. Operating funds ratio  
\[ \text{Operating funds ratio} = \frac{\text{Cash flow from operations}}{\text{Net Income}} \]

---

### Selected Financial Ratios Framework

<table>
<thead>
<tr>
<th>Liquidity</th>
<th>Debt Mgmt</th>
<th>Asset Mgmt</th>
<th>Profitability</th>
<th>Return to Investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current ratio</td>
<td>Long-term debt / Total capitalization</td>
<td>Avg collection period</td>
<td>Gross profit margin</td>
<td>Return on total assets</td>
</tr>
<tr>
<td>Avg collection period</td>
<td>Financial Leverage</td>
<td>Inventory turnover</td>
<td>Return on equity</td>
<td>Return on equity</td>
</tr>
<tr>
<td>Inventory turnover</td>
<td>Debt average</td>
<td>Total asset turnover</td>
<td>Return on sales</td>
<td>Dividend payout</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Return on total assets</td>
<td>Revenue growth</td>
<td></td>
</tr>
<tr>
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<td></td>
<td>Return on total assets</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Operating funds ratio</td>
<td></td>
</tr>
</tbody>
</table>
10 Commandments of Financial Statement Analysis

1. Thou shalt not use financial statements in isolation.
2. Thou shalt not use financial statements as the only source of firm-specific information.
3. Thou shalt not avoid reading footnotes.
4. Thou shalt not focus on a single number.
5. Thou shalt not overlook the implications of what is read.
6. Thou shalt not ignore events subsequent to the financial statements.
7. Thou shalt not overlook the limitations of financial statements.
8. Thou shalt not use financial statements without adequate knowledge.
9. Thou shalt not shun professional help.
10. Thou shalt not take unnecessary risks.