Exercise 1  Analysis of an Income Statement

(a) Net sales
   Operating expenses 17,484
   Plus pension returns 1,230 18,714
   Core income from sales 1,653
   Tax as reported 1,606
   Tax benefit of debt 91
   Tax on other core income (455.1)
   Tax on unusual items (377) 864.9
   Core income from sales (after tax) 788.1

Other core income:
   Pension returns 1,230
   Tax @37% 455.1 774.9
   Core operating income 1,563

Unusual items (non-core)
   Gain on asset sales 1,083
   Restructuring charge 65 1,018
   Tax @37% 377 641
   Operating income 2,204

Net financial expense:
   Interest expense 363
   Interest income 118 245
   Tax at 37% 91 154
   Net income 2,050

(b) Tax on operating income from sales 864.9
    Tax on other core income 455.1
    1,320.0

Core operating income before tax = 1,653 + 1,230 = 2,883
Effective tax rate = 1,320/2,883 = 45.8%
Exercise Set 2  Forecasting Cash Flow and Net Indebtedness

Setting up financial statements:

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>NOA 500</td>
<td>OI 55</td>
<td>NOA 530</td>
</tr>
<tr>
<td>NFO 300</td>
<td>NFE 15</td>
<td>NFO 310</td>
</tr>
<tr>
<td>CSE 200</td>
<td>Earnings 40</td>
<td>CSE 220</td>
</tr>
</tbody>
</table>

Earnings_{2009} = 200 \times 20\% = 40
OI_{2009} = 40 + 15 = 55
NOA_{2009} = 500 \times 1.06 = 530
CSE_{2009} = 200 + 40 - 20 = 220
NFO_{2009} = 530 - 220 = 310
(a) RNOA_{2009} = 55/500 = 11.0\%

(b) C – I = OI - \Delta NOA
\hspace{1cm} = 55 - (530 - 500) = 25

(c) NFO_{2009} = 530 - 220 = 310 (as above)
Also,
NFO_{2009} = NFO_{2008} + NFE - (C – I) + d
\hspace{1cm} = 300 + 15 - 25 + 20
\hspace{1cm} = 310

(d) FLEV_{2008} = 300/200 = 1.5
FLEV_{2009} = 310/220 = 1.409

Note that the financing leverage equation works:
ROCE = RNOA + [FLEV x (RNOA – NBC)]
\hspace{1cm} = 11\% + [1.5 \times (11\% - 5\%)]
\hspace{1cm} = 20\%
Exercise Set 3  Challenging the Share Price of Cisco Systems, Inc.

The reformulated Statements:

**Income Statement 2009**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>36,117</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>13,023</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>15,900</td>
</tr>
<tr>
<td></td>
<td>7,194</td>
</tr>
<tr>
<td>Tax reported</td>
<td>1,559</td>
</tr>
<tr>
<td>Tax on net interest</td>
<td>181</td>
</tr>
<tr>
<td>Core operating income after tax</td>
<td>5,816</td>
</tr>
<tr>
<td>Net interest income</td>
<td>499</td>
</tr>
<tr>
<td>Tax @ 36.3%</td>
<td>181</td>
</tr>
<tr>
<td>Comprehensive income</td>
<td>6,134</td>
</tr>
</tbody>
</table>

**Balance Sheet**

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOA</td>
<td>13,941</td>
<td>15,011</td>
</tr>
<tr>
<td>NFA</td>
<td>24,706</td>
<td>19,342</td>
</tr>
<tr>
<td>CSE</td>
<td>38,647</td>
<td>34,353</td>
</tr>
</tbody>
</table>

Average NOA 14,476
Average NFA 22,024
Average CSE 36,500

(a) ROCE = 6,134 / 36,500 = 16.81%
RNOA = 5,816 / 14,476 = 40.18% = Core RNOA
RNFA = 318 / 22,024 = 1.44%

(b) C – I = OI – ΔNOA = 5,816 – (13,941 – 15,011) = 6,886

(c) Core operating PM = 5,816 / 36,117 = 16.10%
ATO = 36,117 / 14,476 = 2.495
Core RNOA = 16.10% x 2.495 = 40.18%

(d) Operating income\textsubscript{2010} = NOA\textsubscript{2009} x Core RNOA\textsubscript{2009}
  = 13,941 x 0.4018
  = 5,601.5

ReOI\textsubscript{2010} = 5,601.5 – (0.10 x 13,941)
  = 4,207.4
(e) Market value = $22.01 \times 5,785 \text{ million shares} \\
= $127,328 \text{ million}

Reverse engineer:

\[
127,328 = 38,647 + \frac{4,207.4}{1.01 - g} \\
\Rightarrow g = 1.0526 \quad (5.26\% \text{ growth rate})
\]

(f) Expected return = \[
\left[ \frac{\text{NOA}}{\text{PNOA}} \times \text{RNOA} \right] + \left[ \left(1 - \frac{\text{NOA}}{\text{PNOA}}\right) \times (g - 1) \right]
\]

Enterprise price = Equity price – Net financial assets

\[
= \$127,328 - 24,706 \\
= \$102,622 \text{ million}
\]

Enterprise book - to - price \[
\left( \frac{\text{NOA}}{\text{PNOA}} \right) = \frac{13,941}{102,622} = 0.136
\]

Expected return with 4\% growth rate

\[
= [0.136 \times 40.18\%] + [0.864 \times 4\%] \\
= 5.464\% + 3.456\% \\
= 8.92\%
\]

(g) Option value = $4.42 \times 1,004 \text{ million options} \\
= $4,437.7 \text{ million}

Tax @36.3\% = 1,610.9

Option overhang = $2,826.9 \text{ million}