Sixth Lecture

Profit and Capital Accumulation

Business organization
- Proprietorship
- Partnership
- Corporation
- Why do corporations dominate capitalism?
- Economies of scale, risk, power

Financial statements
- Balance sheet assets: “tangible,” “intangible”
- Balance sheet liabilities: debt, equity
- Does the balance sheet balance?
- Creditors and owners
- Income statement: revenue, costs, profit
- Depreciation and amortization – art or con-art?
- Interest, taxes and net profit
- Retained earnings and dividends

The rate of profit and capital accumulation
- Measures of capital: historical cost, replacement cost, market value
- Rate of profit or rates of profit?
- How does capital accumulate: backward or forward looking?
- Market value versus fixed assets

Determinants of the profit rate
- Efficiency and intensity of labour
- Prices vs. “quantities”
- Capacity utilization
- The profit rate and conflict
FIGURE 1  Property Income in the United States (Share of National Income)

SOURCE: U.S. Bureau of Economic Analysis through Global Insight. (Series codes YN for national income; YPPROPADJ for proprietors’ income; YPRENTADJ for rent; ZBECON for pretax corporate profit; INTNETAMISC for net interest.)
### General Electric GE

<table>
<thead>
<tr>
<th>Balance Sheet</th>
<th>As originally reported</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets $Mil</strong></td>
<td></td>
</tr>
<tr>
<td>Short Term Investment</td>
<td>41,070.00</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>8,735.00</td>
</tr>
<tr>
<td>Inventory</td>
<td>4,305.00</td>
</tr>
<tr>
<td>Other Current Assets</td>
<td>0.0</td>
</tr>
<tr>
<td>Total Current Assets</td>
<td>57,020.00</td>
</tr>
<tr>
<td>Net PP&amp;E</td>
<td>25,879.00</td>
</tr>
<tr>
<td>Intangibles</td>
<td>13,342.00</td>
</tr>
<tr>
<td>Other Long Term Assets</td>
<td>131,994.00</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>228,085.00</td>
</tr>
</tbody>
</table>

| Liabilities and Stockholders’ Equity $Mil |  | |
|---------------------------------------------|------------------------|
| Short Term Debt | 64,465.00 | 60,200.00 | 90,075.00 | 115,376.00 | 130,046.00 | 119,100.00 | 150,076.00 | 130,775.00 | 134,817.00 | 157,740.00 | 145,070.00 |
| Taxes Payable | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Accrued Liabilities | 5,988.00 | 7,066.00 | 8,891.00 | 9,786.00 | 11,229.00 | 12,219.00 | 14,132.00 | 15,577.00 | 15,543.00 | 17,539.00 | 150.000.00 |
| Other Short Term Liabilities | 2,579.00 | 3,016.00 | 3,295.00 | 3,911.00 | 5,665.00 | 9,880.00 | 13,358.00 | 8,601.00 | 5,446.00 | 6,266.00 | 24,060.00 |
| Total Current Liabilities | 82,001.00 | 100,507.00 | 120,668.00 | 141,575.00 | 161,216.00 | 156,112.00 | 198,304.00 | 181,827.00 | 175,530.00 | 206,280.00 | 192,884.00 |
| Long Term Debt | 51,027.00 | 49,240.00 | 46,603.00 | 59,663.00 | 71,427.00 | 62,132.00 | 79,086.00 | 140,632.00 | 170,000.00 | 213,161.00 | 219,609.00 |
| Other Long Term Liabilities | 85,385.00 | 91,524.00 | 102,303.00 | 115,813.00 | 130,000.00 | 148,270.00 | 191,469.00 | 199,079.00 | 221,709.00 | 220,005.00 | 215,688.00 |
| **Total Liabilities** | 198,426.00 | 241,277.00 | 259,574.00 | 317,655.00 | 362,843.00 | 386,514.00 | 440,199.00 | 511,538.00 | 565,303.00 | 640,406.00 | 627,878.00 |
| Total Equity | 29,609.00 | 91,126.00 | 24,439.00 | 29,880.00 | 42,667.00 | 60,492.00 | 64,924.00 | 63,706.00 | 79,160.00 | 110,264.00 | 112,284.00 |
| Total Liabilities & Equity | 228,085.00 | 272,402.00 | 304,012.00 | 350,835.00 | 405,200.00 | 437,006.00 | 496,023.00 | 575,244.00 | 647,463.00 | 750,330.00 | 740,362.00 |

SOURCE: Morning Star  
## General Electric GE

### Income Statement

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>COGS</th>
<th>Gross Profit</th>
<th>Operating Expenses</th>
<th>Operating Income</th>
<th>Other Income and Expense</th>
<th>Net Income &amp; Other</th>
<th>Earnings After Taxes</th>
<th>Earnings Before Taxes</th>
<th>Income Taxes</th>
<th>Net Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>75,028.0</td>
<td>78,170.0</td>
<td>98,936.0</td>
<td>100,460.0</td>
<td>111,030.0</td>
<td>129,833.0</td>
<td>2007.0</td>
<td>2470.0</td>
<td>25,120.0</td>
<td>30,970.0</td>
<td>30,958.0</td>
</tr>
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</tr>
</tbody>
</table>

### General Electric GE Income Statement

**Reconciliation of Net Income to Diluted EPS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Diluted EPS, Cont. Op.</th>
<th>Diluted EPS$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>0.65</td>
<td>0.65</td>
</tr>
</tbody>
</table>

**Shares**

<table>
<thead>
<tr>
<th>Year</th>
<th>Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>9007</td>
</tr>
</tbody>
</table>
FIGURE 2  U.S.-Based Corporations: Profit, Taxes and Net Interest (Share of National Income)

SOURCE: U.S. Bureau of Economic Analysis through Global Insight. (Series codes YN for national income; ZAECON for corporate profit after tax; TXCORP for corporate taxes; INTNETAMISC for net interest.)
FIGURE 3  U.S.-Based Corporations: Rates of Return and the Growth of Fixed Assets

NOTE: Series are smoothed as 10-year moving averages.

SOURCE: U.S. Bureau of Economic Analysis through Global Insight. (Series codes: FAPNREZVR for the current value of corporate fixed assets; ZAECON for net corporate profit; INTNETAMISC for net interest.)
FIGURE 4  Growth of U.S. Corporate Income and Fixed Assets

NOTE: Series are smoothed as 10-year moving averages.

SOURCE: U.S. Bureau of Economic Analysis through Global Insight. (Series codes: FAPNREZVR for the current value of corporate fixed assets; ZAECON for net corporate profit; INTNETAMISC for net interest.)
FIGURE 5   Growth of U.S. Corporate Income and Fixed Assets (expressed in 2000 dollars)

NOTE: Series are smoothed as 10-year moving averages. Nominal dollar data are deflated by the GDP deflator of fixed nonresidential private domestic investment.

SOURCE: U.S. Bureau of Economic Analysis through Global Insight. (Series codes: FAPREZVR for the current value of corporate fixed assets; ZAECON for net corporate profit; INTNETAMISC for net interest; PDIIFNRE for the GDP deflator for fixed nonresidential domestic investment.)
FIGURE 6   U.S.-Based Corporations: Market Value versus Fixed Assets

* Series are smoothed as 10-year moving averages.

SOURCE: U.S. Bureau of Economic Analysis and U.S. Federal Reserve Flow of Funds through Global Insight. (Series codes: FAPNREZVR for the current value of corporate fixed assets; FL893064105 for market value of corporate equities; FL893163005 for the market value of corporate and foreign bonds.)
BOX 1

\[ r = \frac{R}{K} \]

0.1 = \frac{100}{1,000}

\( r \) = rate of profit (decimal fraction)
\( R \) = total profit ($/year)
\( K \) = invested capital ($)

---

BOX 2

Substitute \((Y - W)\) for \(R\):

\[ r = \frac{Y - W}{K} \]

\( r \) = rate of profit (decimal fraction)
\( Y \) = net output ($/year)
\( W \) = total wages and salaries ($/year)
\( K \) = invested capital ($)

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BOX 3

Substitute \((S - M)\) for \(Y\):

\[ r = \frac{S - M - W}{K} \]

\( r \) = rate of profit (decimal fraction)
\( S \) = total sales, assuming all production is sold ($/year)
\( M \) = cost of material and depreciated capital ($/year)
\( W \) = total wages and salaries ($/year)
\( K \) = invested capital ($)
Divide numerator and denominator by $N$:

$$r = \frac{S - M - W}{N} = \frac{S - M}{K} - \frac{W}{N}$$

$r$ = rate of profit (decimal fraction)  
$S$ = total sales ($/year$)  
$M$ = cost of material and depreciated capital ($/year$)  
$W$ = total wages and salaries ($/year$)  
$K$ = invested capital ($)  
$N$ = number of hours of labour per year  
$w$ = wage rate (refers to both wages and salaries, $/hour$)
 Decompose sales per hour of labour $S/N$:

$$\frac{S}{N} = P_z z$$

$S$ = total sales ($/year)$
$N$ = number of hours of labour per year
$P_z$ = price of the product ($)$
$z$ = number of units sold per hour of labour

Decompose the number of units sold per hour of labour $z$:

$$z = ef$$

$z$ = number of units sold per hour of labour
$f$ = efficiency of labour when workers work at maximum “intensity” (units/hour)
$e$ = the “intensity” of labour ($0 < e < 1$)

Substitute $ef$ for $z$:

$$\frac{S}{N} = P_z z = P_z ef$$

Substitute $P_z ef$ for $S/N$:

$$r = \frac{S - M}{N} - \frac{w}{K} = \frac{(P_z ef) - M}{N} - \frac{w}{K}$$
BOX 6

Decompose cost of materials and depreciation per hour of labour $M/N$:

\[
\frac{M}{N} = P_m m
\]

$M =$ total cost of materials and depreciation ($/year)

$N =$ number of hours of labour per year

$P_m =$ price of “unit” of materials and depreciation ($)

$m =$ number of “units” of materials and depreciation used per hour of labour

Substitute $P_m m$ for $M/N$:

\[
r = \frac{(P_\text{ef}) - \frac{M}{N} - w}{\frac{K}{N}} = \frac{(P_\text{ef}) - (P_m m) - w}{\frac{K}{N}}
\]
Decompose the $ value of capital goods per hour of labour $K/N$:

\[
\frac{K}{N} = k = \frac{P_c (CG)}{N} = \frac{P_c CG}{N}
\]

$K =$ invested capital ($)
$N =$ number of hours of labour per year
$k =$ value of invested capital per hour of labour ($/hour)
$P_c =$ price of capital goods ($)
$CG =$ “quantity” of capital goods ($)

Decompose the “quantity” of capital goods per hour of labour $CG/N$:

\[
\frac{CG}{N} = \frac{CG}{CG \text{ in use}} \times \frac{CG \text{ in use}}{N} = \frac{1}{u} g
\]

$g =$ quantity of capital goods per hour of labour ($)
$u =$ capacity utilization (fraction the capital goods actually in use, $0 < u < 1$)

Substitute back into the value of capital goods per hour of labour $K/N$:

\[
\frac{K}{N} = k = \frac{P_c (CG)}{N} = \frac{P_c CG}{N} = P_c \frac{1}{u} g
\]

Substitute back into the rate of profit $r$:

\[
r = \frac{(P_e f) - (P_m m) - w}{\frac{K}{N}} = \frac{(P_e f) - (P_m m) - w}{P_c \frac{1}{u} g}
\]