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

### Balance Sheet

<table>
<thead>
<tr>
<th>Assets $Mil</th>
<th>As originally reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Equiv</td>
<td>2,823.0 4,191.0 5,881.0 4,317.0 8,554.0 8,196.0 9,082.0 8,910.0 12,884.0 15,328.0 12,894.0</td>
</tr>
<tr>
<td>Short Term Investments</td>
<td>41,007.0 59,889.0 70,021.0 73,717.0 81,758.0 81,339.0 101,017.0 116,862.0 123,724.0 135,530.0 133,852.0</td>
</tr>
<tr>
<td>Assets Receivable</td>
<td>8,735.0 8,704.0 8,924.0 9,224.0 8,531.0 9,502.0 9,590.0 10,681.0 13,732.0 14,233.0 326,318.0</td>
</tr>
<tr>
<td>Inventory</td>
<td>4,395.0 4,473.0 5,905.0 8,040.0 7,007.0 7,812.0 8,565.0 9,247.0 8,752.0 9,778.0 10,501.0</td>
</tr>
<tr>
<td>Other Current Assets</td>
<td>0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0</td>
</tr>
<tr>
<td>Total Current Assets</td>
<td>57,020.0 77,257.0 91,301.0 97,307.0 105,850.0 116,848.0 128,254.0 145,700.0 152,772.0 164,315.0 483,665.0</td>
</tr>
<tr>
<td>Net PP&amp;E</td>
<td>25,879.0 28,795.0 32,315.0 35,730.0 41,022.0 40,016.0 42,140.0 47,204.0 53,382.0 63,334.0 64,774.0</td>
</tr>
<tr>
<td>Intangibles</td>
<td>13,342.0 18,007.0 19,121.0 23,635.0 26,010.0 27,441.0 31,840.0 40,190.0 50,025.0 83,240.0 85,477.0</td>
</tr>
<tr>
<td>Other Long Term Assets</td>
<td>131,994.0 160,343.0 181,274.0 199,285.0 232,318.0 252,702.0 292,980.0 338,163.0 385,204.0 428,811.0 166,446.0</td>
</tr>
<tr>
<td>Total Assets</td>
<td>228,035.0 272,402.0 304,012.0 365,538.0 405,500.0 437,006.0 496,023.0 575,244.0 647,483.0 750,330.0 760,382.0</td>
</tr>
</tbody>
</table>

### Liabilities and Stockholders' Equity $Mil

<table>
<thead>
<tr>
<th>Liabilities and Stockholders' Equity $Mil</th>
<th>As originally reported</th>
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</thead>
<tbody>
<tr>
<td>Assets Payable</td>
<td>0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0</td>
</tr>
<tr>
<td>Short Term Debt</td>
<td>64,403.0 60,200.0 90,075.0 115,760.0 130,040.0 119,100.0 150,076.0 130,775.0 134,617.0 157,740.0 145,870.0</td>
</tr>
<tr>
<td>Taxes Payable</td>
<td>5,985.0 7,085.0 8,110.0 9,841.0 11,229.0 12,219.0 14,132.0 15,577.0 15,343.0 17,539.0 17,539.0</td>
</tr>
<tr>
<td>Accrued Liabilities</td>
<td>2,570.0 3,016.0 3,295.0 3,611.0 5,665.0 9,800.0 13,358.0 8,601.0 5,446.0 6,266.0 24,060.0</td>
</tr>
<tr>
<td>Total Current Liabilities</td>
<td>82,301.0 100,507.0 120,669.0 141,579.0 161,216.0 156,112.0 199,304.0 181,827.0 175,530.0 206,280.0 192,584.0</td>
</tr>
<tr>
<td>Long Term Debt</td>
<td>51,027.0 48,240.0 46,603.0 59,663.0 71,427.0 62,132.0 78,806.0 140,632.0 170,004.0 213,161.0 219,609.0</td>
</tr>
<tr>
<td>Other Long Term Liabilities</td>
<td>65,938.0 91,524.0 132,303.0 119,013.0 130,000.0 148,270.0 151,489.0 159,909.0 221,769.0 220,025.0 219,686.0</td>
</tr>
<tr>
<td>Total Liabilities</td>
<td>198,466.0 241,277.0 259,574.0 317,655.0 362,843.0 386,514.0 440,199.0 511,538.0 569,303.0 640,046.0 627,878.0</td>
</tr>
<tr>
<td>Total Equity</td>
<td>29,609.0 91,126.0 34,439.0 39,680.0 42,667.0 40,492.0 44,924.0 53,706.0 59,160.0 110,264.0 112,284.0</td>
</tr>
<tr>
<td>Total Liabilities &amp; Equity</td>
<td>228,035.0 272,402.0 304,012.0 350,835.0 405,200.0 437,006.0 496,023.0 575,244.0 647,483.0 750,330.0 740,162.0</td>
</tr>
</tbody>
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**SOURCE:** Morning Star

General Electric GE

### Income Statement

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<tbody>
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<td>1995</td>
<td>78,028.0</td>
<td>30,970.0</td>
<td>46,058.0</td>
<td>22,285.0</td>
<td>17,033.0</td>
<td>--</td>
<td>(10,013.0)</td>
<td>12,385.0</td>
<td>3,164.0</td>
<td>9,221.0</td>
<td>(444.0)</td>
<td>(392.0)</td>
<td>(3,270.0)</td>
<td>6,573.0</td>
<td>0.65</td>
<td>0.65</td>
<td>1077</td>
</tr>
<tr>
<td>1996</td>
<td>78,178.0</td>
<td>32,871.0</td>
<td>45,307.0</td>
<td>22,420.0</td>
<td>17,947.0</td>
<td>--</td>
<td>(10,216.0)</td>
<td>12,730.0</td>
<td>3,114.0</td>
<td>9,616.0</td>
<td>(432.0)</td>
<td>(340.0)</td>
<td>(3,240.0)</td>
<td>6,573.0</td>
<td>0.65</td>
<td>0.73</td>
<td>809</td>
</tr>
<tr>
<td>1997</td>
<td>96,380.0</td>
<td>40,000.0</td>
<td>56,380.0</td>
<td>24,260.0</td>
<td>18,017.0</td>
<td>--</td>
<td>(11,210.0)</td>
<td>16,000.0</td>
<td>3,612.0</td>
<td>12,388.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>6,573.0</td>
<td>0.73</td>
<td>0.73</td>
<td>9011</td>
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<tr>
<td>1998</td>
<td>100,340.0</td>
<td>42,280.0</td>
<td>58,060.0</td>
<td>24,550.0</td>
<td>18,230.0</td>
<td>--</td>
<td>(11,214.0)</td>
<td>16,016.0</td>
<td>3,515.0</td>
<td>12,491.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>6,573.0</td>
<td>0.73</td>
<td>0.73</td>
<td>9003</td>
</tr>
<tr>
<td>1999</td>
<td>111,630.0</td>
<td>45,350.0</td>
<td>66,280.0</td>
<td>25,880.0</td>
<td>18,480.0</td>
<td>--</td>
<td>(11,312.0)</td>
<td>16,168.0</td>
<td>3,511.0</td>
<td>12,657.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>6,573.0</td>
<td>0.73</td>
<td>0.73</td>
<td>9005</td>
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<tr>
<td>2000</td>
<td>129,853.0</td>
<td>51,023.0</td>
<td>78,830.0</td>
<td>25,830.0</td>
<td>18,543.0</td>
<td>--</td>
<td>(11,310.0)</td>
<td>16,132.0</td>
<td>3,510.0</td>
<td>12,622.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>6,573.0</td>
<td>0.73</td>
<td>0.73</td>
<td>9003</td>
</tr>
<tr>
<td>2001</td>
<td>125,813.0</td>
<td>49,097.0</td>
<td>76,716.0</td>
<td>25,716.0</td>
<td>18,274.0</td>
<td>--</td>
<td>(11,216.0)</td>
<td>16,058.0</td>
<td>3,515.0</td>
<td>12,543.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>6,573.0</td>
<td>0.73</td>
<td>0.73</td>
<td>9003</td>
</tr>
<tr>
<td>2002</td>
<td>131,613.0</td>
<td>50,056.0</td>
<td>81,557.0</td>
<td>26,557.0</td>
<td>18,120.0</td>
<td>--</td>
<td>(11,210.0)</td>
<td>16,307.0</td>
<td>3,511.0</td>
<td>12,596.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>6,573.0</td>
<td>0.73</td>
<td>0.73</td>
<td>9003</td>
</tr>
<tr>
<td>2003</td>
<td>134,137.0</td>
<td>51,200.0</td>
<td>82,937.0</td>
<td>27,137.0</td>
<td>18,406.0</td>
<td>--</td>
<td>(11,240.0)</td>
<td>16,166.0</td>
<td>3,516.0</td>
<td>12,650.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>6,573.0</td>
<td>0.73</td>
<td>0.73</td>
<td>9003</td>
</tr>
<tr>
<td>2004</td>
<td>153,260.0</td>
<td>56,154.0</td>
<td>97,106.0</td>
<td>26,916.0</td>
<td>18,200.0</td>
<td>--</td>
<td>(11,218.0)</td>
<td>16,182.0</td>
<td>3,512.0</td>
<td>12,670.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>6,573.0</td>
<td>0.73</td>
<td>0.73</td>
<td>9003</td>
</tr>
</tbody>
</table>

**SOURCE:** Morning Star

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; INTEXTRAIV 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: FAPNREZVR 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 ($)

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 \( N \):

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

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

\( r \) = 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 $S/N$:

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

$S = \text{total sales ($/year)}$

$N = \text{number of hours of labour per year}$

$P_z = \text{price of the product ($)}$

$z = \text{number of units sold per hour of labour}$

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

$$z = ef$$

$z = \text{number of units sold per hour of labour}$

$f = \text{efficiency of labour when workers work at maximum “intensity” (units/hour)}$

$e = \text{the “intensity” of labour (} 0 < e < 1)$

Substitute $ef$ for $z$:

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

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

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

$$r = \frac{K}{N} - \frac{K}{N}$$
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 $M/N$:

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

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

$K =$ 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 $CG/N$:

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

$g =$ 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 $K/N$:

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

Substitute back into the rate of profit $r$:

\[
r = \frac{(P_2 ef) - (P_m m) - w}{K} = \frac{(P_2 ef) - (P_m m) - w}{P_c \frac{1}{u} \frac{g}{u}}
\]