Marketable Securities and Deferred Taxes

- 15.501/516 Accounting
- Spring 2004

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- Sloan School of Management
- Massachusetts Institute of Technology

Marketable Securities and Deferred Taxes: Agenda

- Understand when accounting departs from the "transactions-based" model and towards market-driven valuations
- Illustrate the role of judgment in applying the lower-of-cost-or-market (LCM) rule for inventory
- Understand how marketable securities are valued on companies' Balance Sheets
- Understand the Income Statement effects of valuation adjustments

Should changes in market value be recognized?

- Accounts receivable
  - Estimates of uncollectibles
  - Changes in credit risk
- Inventory
  - Purchase/production cost
  - Changes in input prices, obsolescence
- Fixed Assets
  - Acquisition cost (historical basis)
  - Obsolescence
Lower of cost or market rule for Inventory

- When Market Value of Inventory < Capitalized Cost
- Loss on inventory writedown = Capitalized cost - Market Value
- This is added to Cost of Goods Sold, expense increases, income decreases
- Market value = Lower of the replacement cost and selling price
- Once inventory is written down in the balance sheet, it cannot be "written up" in subsequent periods
- Issues
  - Susceptibility to writedowns of LIFO vs. FIFO
  - "Hidden reserves" and income smoothing

Valuation Adjustments: K-Mart

On July 25, 2000, Kmart announced a series of strategic actions designed to enhance the productivity of its store base, inventory and information systems. "A pretax charge of $290 million was taken to state the inventory at its net realizable value” “...and $75 million to reflect the anticipated loss in value of inventory at the closed locations...” Total is $365 million.

<table>
<thead>
<tr>
<th>13 Weeks Ended July 26, 2000 ($ in millions)</th>
<th>As Reported</th>
<th>Charge For Strategic Actions</th>
<th>Excluding Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$8,998</td>
<td>$-</td>
<td>$8,998</td>
</tr>
<tr>
<td>Cost of sales, buying and occupancy</td>
<td>7,518</td>
<td>365</td>
<td>7,153</td>
</tr>
<tr>
<td>Gross margin</td>
<td>1,480</td>
<td>(365)</td>
<td>1,545</td>
</tr>
</tbody>
</table>

Should changes in market value of Marketable Securities be recognized?

- Marketable securities
  - Corporate and government bonds, treasuries
  - Common stock
  - Derivative instruments: options, swaps, etc.
- What is different about marketable securities such that both gains and losses can be recognized?
  - Objective (i.e., reliable, verifiable) market values of the assets are easily available
  - Enron troubles due in part to the reliance on prices of illiquid securities
New Accounting Rules (adopted in 1994)  
SFAS 115
- Prior to 1994, marketable securities involving stock and bonds are valued at "lower of cost or market" on a portfolio basis
- SFAS 115: Mark-to-market accounting: gains and losses treated similarly
- New classifications
  - Trading securities (debt and equity)
  - Available for sale (debt and equity)
  - Held-to-maturity (debt only)

Controversy: where should changes in market value be reported?
- Taxes are paid/credited only on realized gains/losses
- Deferred taxes on unrealized (paper) gains/losses

Marketable Securities
- Trading securities (debt and equity)
  - Acquired for short-term profit potential
  - Changes in market value reported in the income statement (net of taxes), investment marked to market in the balance sheet
  - Purchases and disposals reported in operating section of SCF
- Held to maturity (debt only)
  - Acquired with ability and intent to hold to maturity
  - No changes in market value reported in the income statement, thus investment carried at historical cost in the balance sheet
  - Interest income reported in operating section of SCF
- Available for sale (debt and equity)
  - Securities not classified as either of above
  - Changes in market value reported in "Other Equity" (net of taxes), instead of the income statement
  - Purchases and disposals reported in investing section of SCF
What Is “Other Equity”? 

- So far, what have we seen in class?
- Stockholders’ Equity (SE) = Contributed capital (CC) + Retained Earnings (RE)
- The above is a simplification! It is known as the "Clean Surplus Equation”.
- In fact, Clean Surplus is often violated
- SE = CC + RE + Other Equity
- What causes changes in “Other Equity”?
- Changes in the market value of AFS securities, for one!

An Illustration: Acquisition and Dividends (2002)


Trading:

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<tr>
<th>C</th>
<th>MS</th>
<th>+MSadj</th>
<th>DTL</th>
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AFS:

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On Nov. 30, 2002, Ace received $625 in dividends ($1.25/share of MITCo)

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An Illustration: Acquisition and Dividends (2002)


\[
\begin{array}{c|c|c|c|c}
\text{Trading:} & \text{C} & \text{MS} & +\text{MS}_{\text{adj}} & = \\
\hline
(12,500) & & 12,500 & & \\
\end{array}
\]

AFS: Same as above

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\end{array}
\]

AFS: Same as above

"Investment income" on I/S

Unrealized Gains and Losses (2002)

On Dec. 31, 2002, MITCo is trading at $30/share. Ace elected to keep the shares, and has a tax rate of 30%.

\[
\begin{array}{c|c|c|c|c}
\text{Trading:} & \text{C} & \text{MS} & +\text{MS}_{\text{adj}} & = \\
\hline
12,500 & & 2,500 & & \\
\end{array}
\]

EB:

AFS: C MS +MS_{adj} = DTL OE RE

BB: 12,500

EB:
### Unrealized Gains and Losses (2002)

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<tr>
<td>BB:</td>
<td>12,500</td>
<td>2,500</td>
<td>2,500</td>
<td>(750)</td>
<td></td>
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**EB:**

| 12,500 | 2,500 | 750 |

#### AFS:

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<tr>
<td>BB:</td>
<td>12,500</td>
<td>2,500</td>
<td>750</td>
<td>1,750</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EB:**

| No I/S effect | 12,500 | 2,500 | 750 |

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**Notes:**

- 2,500 x 0.3 "Income tax expense" on I/S
- No I/S effect
**Unrealized Gains and Losses (2002)**

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**Unrealized Gains and Losses (2003)**

On Dec. 31, 2003, MITCo is trading at $27/share. Ace elected to keep the shares.

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<tbody>
<tr>
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<td>2,500</td>
<td>750</td>
<td>(1,500)</td>
<td>(1,500)</td>
</tr>
</tbody>
</table>

**EB:**

\[ (1,500) \times 0.30 \text{ "Income tax benefit" on I/S } \]

<table>
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<tr>
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<th>MS</th>
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<tr>
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<td>2,500</td>
<td>750</td>
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**EB:**

No I/S effect
Unrealized Gains and Losses (2003)

On Dec. 31, 2003, MITCo is trading at $27/share. Ace elected to keep the shares.

Trading:

\[ C \quad MS \quad +MSadj = DTL \quad OE \quad RE \]

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<thead>
<tr>
<th>BB</th>
<th>12,500</th>
<th>2,500</th>
<th>(1,500)</th>
<th>(1,500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EB</td>
<td>12,500</td>
<td>1,000</td>
<td>750</td>
<td>(450)</td>
</tr>
</tbody>
</table>

AFS:

\[ C \quad MS \quad +MSadj = DTL \quad OE \quad RE \]

<table>
<thead>
<tr>
<th>BB</th>
<th>12,500</th>
<th>2,500</th>
<th>(1,500)</th>
<th>(1,500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EB</td>
<td>12,500</td>
<td>1,000</td>
<td>300</td>
<td>700</td>
</tr>
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</table>

Realized Gains and Losses (2004)

On Feb. 14, 2004, Ace sold all of its investment in MITCo, then trading at $36/share.

Trading:

\[ C \quad MS \quad +MSadj = DTL \quad OE \quad RE \]

<table>
<thead>
<tr>
<th>BB</th>
<th>12,500</th>
<th>1,000</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>EB</td>
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<td>1,000</td>
<td>300</td>
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AFS:

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<table>
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<tr>
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<th>300</th>
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<tbody>
<tr>
<td>BB: 12,500</td>
<td>1,000</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18,000</td>
<td>(12,500)</td>
<td>(1,000)</td>
<td>(300)</td>
<td>4,500</td>
<td>(1,350)</td>
</tr>
</tbody>
</table>

EB:
- Pay tax on the full gain ($18,000 - $12,500) x 0.30
- Recognize tax expense for gain in this year's I/S, $4,500 x 0.30

AFS:

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<td>300</td>
<td></td>
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EB:

$36 x 500
- Remove existing accounts
- "Plug" that equals ($36 - $25) x 500 "Investment income" on I/S
Marketable Securities: Income patterns

<table>
<thead>
<tr>
<th>Trading</th>
<th>Available for Sale</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,500</td>
<td>5,500</td>
</tr>
<tr>
<td>4,500</td>
<td>4,500</td>
</tr>
<tr>
<td>2,500</td>
<td>2,500</td>
</tr>
<tr>
<td>-1,500</td>
<td>-1,500</td>
</tr>
</tbody>
</table>

- 02 03 04
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Reclassifications of Marketable Securities

- Trading to Available for sale
  - Gains or losses of the period recognized on reclassification date
  - Subsequent market value changes reported in "Other Equity"

- Available for sale to Trading
  - Cumulative gains or losses, including those of current period, recognized on reclassification date
  - Subsequent market value changes reported in the income statement
Why does recognition of gains/losses matter?

**Former SEC Chairman Breeden, on mark-to-market (ca 1990):**
If you are in a volatile business, then your balance sheet and income statement should reflect that volatility. Furthermore, we have seen significant abuse of managed earnings. Too often companies buy securities with an intent to hold them as investments, and then miraculously, when they rise in value, the companies decide it's time to sell them. Meanwhile, their desire to hold those securities that are falling in value grows ever stronger. So companies report the gains and hide the losses.

**Current SEC Chairman Arthur Levitt, Jr (1997):**
it is unacceptable to allow American investors to remain in the dark about the consequences of a $23 trillion derivatives exposure. We support the independence of the FASB as they turn on the light.

**Federal Reserve Chairman Greenspan, on derivatives (ca 1997):**
Putting the unrealized gains and losses of open derivatives contracts onto companies' income statements would introduce "artificial" volatility to their earnings and equity. Shareholders would become confused; management might forego sensible hedging strategies out of purely window dressing concerns.

A compromise in GAAP?

- Recognize all unrealized gains/losses for "trading securities" in Net Income
- Mark "available for sale" securities to market value, but don't report changes in the income statement
  - Reduces earnings volatility
  - Managers dislike income volatility
    - They complain similarly about other accounting method changes that increase reported earnings volatility even though underlying cash flows are unaffected
- Ignore value changes for "held to maturity" category

Marketable Securities in other countries

- Canada: LCM for investments classified as current assets; historical cost for noncurrent assets, but recognize "permanent" declines in value
- Mexico: Carry marketable securities at net realizable value, report gains/losses in the income statement; LCM for other investments
- Japan: LCM for marketable securities
- Others: Typically either LCM or mark-to-market, exclusively
- International Accounting Standards: Similar to US GAAP
Summary

- Valuation adjustment necessary when changes in market values are objectively measurable
- Lower of cost or market applied to inventory valuation
- New GAAP in marketable securities: mark-to-market treats gains and losses equally
- Disclosure vs. Recognition in mark-to-market accounting:
  - Not all gains and losses are reported in the income statement
  - A compromise!