Accounting 15.515 Session 11

Handouts

1) Session 11 slides
2) Comment sheets

Announcements

Marketable Securities and Valuation Adjustments

<u>Objectives</u>

- 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

Reliability vs. Relevance

Lower of Cost of Market Rule for Inventory

- When Market Value of Inventory < Capitalized Cost
  - Loss on inventory write-down = Capitalized cost - Market Value, added to Cost of Goods Sold
  - Market value = minimum of replacement cost and selling price
  - Once inventory written down in the balance sheet, it cannot be "written up" in subsequent periods

- Issues
  - Susceptibility to write-downs of LIFO vs. FIFO
  - "Hidden reserves" and income smoothing

Valuation Adjustments: Novellus Systems, Inc

STATEMENTS OF OPERATIONS

Three Months Ended

September 27, 2003 September 28, 2002

For financial data, see the 2003 and 2002 Annual Reports available at Novellus Systems, Inc's web site, http://www.novellus.com.

What are Marketable Securities?

- Marketable securities
  - Corporate and government bonds, treasuries
  - Common stock
  - Derivative instruments: options, swaps, etc.

- Accounting Questions

  (Q1) Should changes in market value of Marketable Securities be recorded on the B/S?

  If the answer to (Q1) is yes,

  (Q2) Should changes in market value be recognized on the income statement?

Statement of Financial Accounting Standard (SFAS) 115

SFAS 115 requires the firm to classify its securities into 3 categories

- **Held-to-maturity (debt only)** - acquired with ability and intent to hold to maturity
- **Trading securities (debt and equity)** - Acquired for short-term profit potential
- **Available for sale (debt and equity)** - Securities not classified as either of above

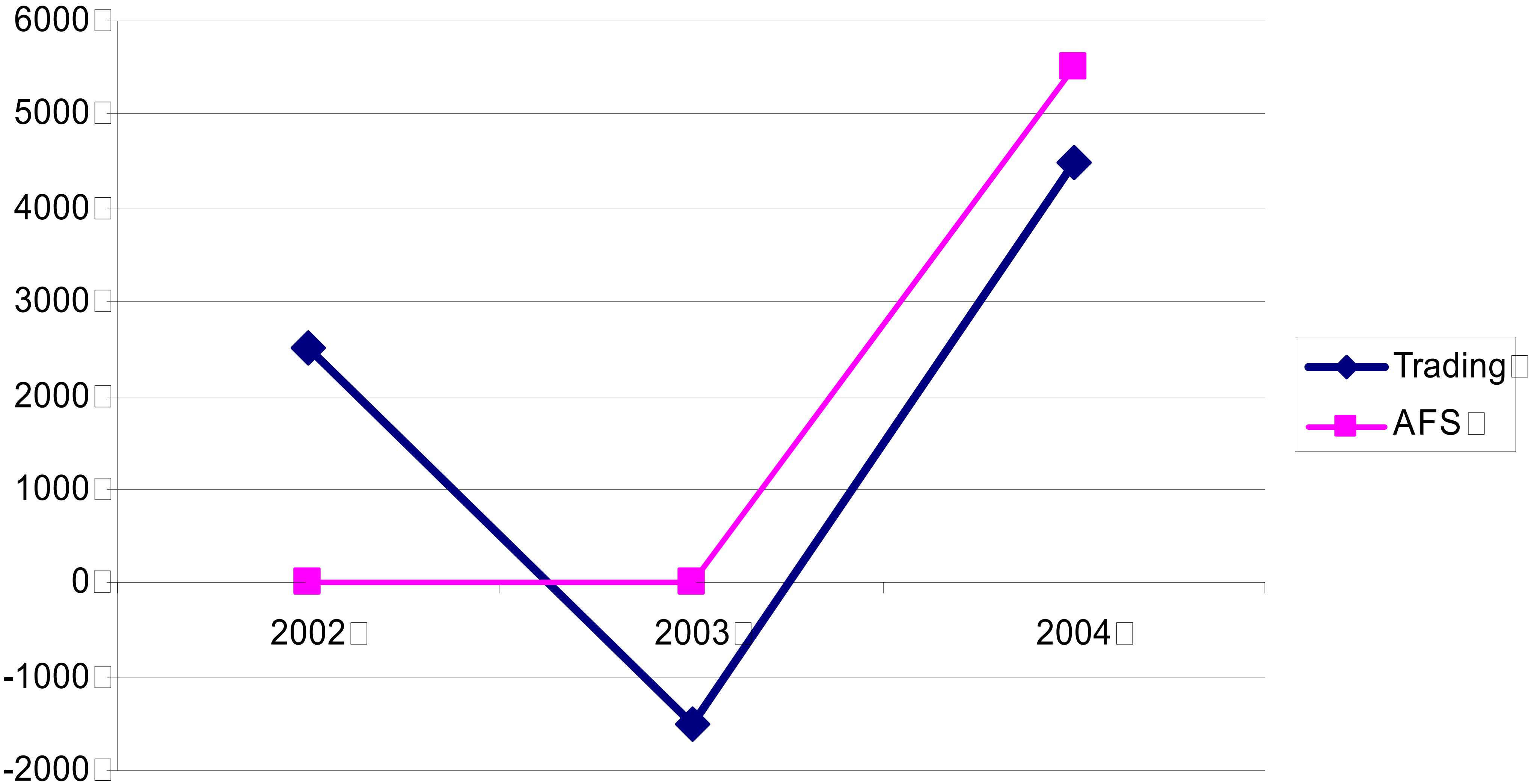
Statement of Financial Accounting Standard (SFAS) 115

Accounting treatment varies according to category
(of unrealized gains and losses)

	B/S Effect	I/S Effect
• **Held-to-maturity (debt only)**	(Q1) no	
• **Trading securities (debt and equity)**	(Q1) yes	(Q2) yes
• **Available for sale (debt and equity)**	(Q1) yes	(Q2) no

Therefore changes in market value affect the balance sheet for available for sale and trading securities. Changes in market value affect the income statement only for trading securities.

Marketable Securities: Pre-tax Income Pattern



Intel's Deferred Tax Liability Accounts

	Assets		=	Liabilities		+	S. E.	
	Cash	Oth Assets	=	inc tax pay.	net def taxes		OE	RE
BB[1]				998	(13)			
Tax Expense[2]				977	110			(1,087)
Tax Payments[3]	(475)			(475)				
Security Gains[4]		28			10		18	
Tax benefit of stock plans[5]				(270)			270	
Acquisitions (plug)[6]				(73)	(11)			
EB[1]				1,157	96			

1. From the Balance Sheet; Negative indicates net deferred tax asset
2. The Income Statement reports 1,087 as the total tax expense. The components come from the tax footnote. Payable (542+143+292) + Deferred (91+19)
3. 475 cash payment from the SCF.
4. The 18 (43-19-6) is from the Statement of Stockholder's Equity and is net of tax. With a tax rate of 35% the gross change is 28 and the deferred tax is 10. From the investments note, -19 = {(21-2) - (53-3)} x (1 -. 35)
5. From the Statement of Stockholder's Equity. Trust us on the offset to "Other Equity."
6. Like it says, a plug.

Data Souce: Intel Corporation's Annual Reports.

Marketable Securities Disclosure -- Intel

Note 6: Investments
Available-for-Sale Investments

	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
2002	$4,597	$21	$ (2)	$4,616
		19		
2001	$3,780	$53	$ (3)	$3,830
		50		

Unrealized loss in 2002 Stmt. of S.E. = (19 – 50) x (1-.35) = -20

Stmt. of S.E. actually shows -19 <close enough>

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/Loss 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.

Former 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 (and 'Comprised' 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. This reduces the "volatility" of the income statement. (Managers do not like volatility and have similarily complained about the volatility derivatives accounting could have -but that's another issue)

► Ignore value changes for "held to maturity" category

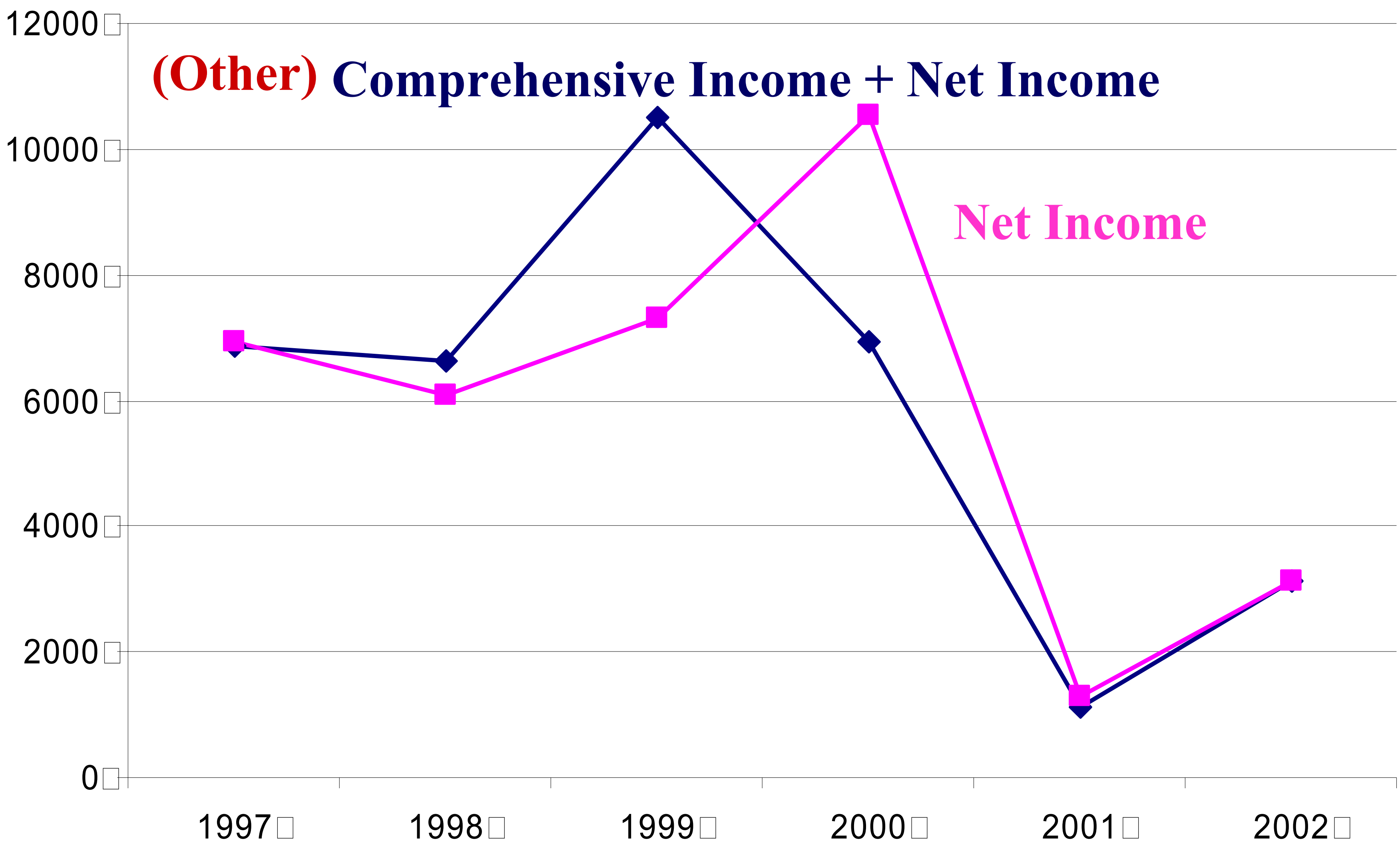
SFAS 130 (June 1997): Introduces Comprehensive Income

►Addressed concerns many had of items bypassing the income statement.

► Unrealized gains/losses of AFS securities are recorded directly to shareholders' equity as a component of "Other Comprehensive Income."

• Do NOT include as part of net income. *(do not pass GO; do not accrue $200)*

Comparing Intel's Comprehensive Income and Net Income



From 1997-2000 Net Income pattern was 'smoother'

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

Summary: Marketable Securities and Valuation Adjustments

- Valuation adjustment necessary when changes in market values are objectively measurable

- Lower of cost or market applied to inventory valuation

- Mark-to-market accounting for marketable securities

- Disclosure vs. Recognition in mark-to-market accounting:
  - Not all gains and losses are reported in the income statement
  - Unrealized gains and losses are part of comprehensive income

- A compromise GAAP: a "compromised" GAAP, too?