

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider

Professor

Scheller College of Business

Cash & Accounts Receivable



1

Cash

Anything a bank will accept for deposit:

- Checks
- Money orders
- Bank credit card slips
- Cash Equivalents [UPS, p. 69]

"Cash and cash equivalents consist of highly liquid investments, that are readily convertible into cash. We consider securities with maturities of three months or less, when purchased, to be cash equivalents." [UPS, p. 69]



2

Accounts Receivable (A/R)

What to do about bad debts?

- Do not reduce net sales.
- Instead, record a bad debts expense.

For Income Statement:

- Matching principle for Bad Debt Expense.



Allowance Methods

Estimate losses [UPS, p. 70]

For Balance Sheet:

$A/R \text{ (net)} = A/R - \text{Allowance for bad debts}$

"Contra-asset" account [NCR, p. 107]

NCR Corporation Notes to Consolidated Financial Statements	
Accounts receivable	
Trade	
Other	
Accounts receivable, gross	
Less: allowance for doubtful accounts	
Total accounts receivable	

"Losses on accounts receivable are recognized when they are incurred, which requires us to make our best estimate of the probable losses inherent in our customer receivables at each balance sheet date. These estimates require consideration of historical loss experience, adjusted for current conditions, trends in customer payment frequency, and judgments about the probable effects of relevant observable data, including present economic conditions and the financial health of specific customers and market sectors". [UPS, p. 70]

Estimation Methods

1. Percentage of Credit Sales Method

Bad Debt Expense = Percentage of credit sales

[This amount is added to Allowance for Bad Debts]

- Bad debt expense is an account that appears on the income statement, so it does not carry over from one year to the next.
- The allowance account is a balance sheet account. It does carry over from one year to the next. The amount at the end of one year becomes the balance at the beginning of the next year.

Example:

*Bad Debt Expense = 2% of \$500,000 credit sales
= \$10,000*



5

Estimation Methods (Cont'd)

2. Percentage of Receivables Method

New Allowance for Bad Debts = Percentage(s) of ending balance in A/R

[Bad Debt Expense = New Allowance for Bad Debts – Previous Allowance for Bad Debts]



6

Example

Previous Allow. for B.D. = \$1,800

Ending balance of A/R=\$100,000:

< 30 days: \$62,000 x 1% = \$620

31-60 days: \$15,000 x 3% = \$450

61-120 days: \$20,000 x 7% = \$1,400

>120 days: \$3,000 x 20% = \$600

New Allow. for B. D. = \$620 + \$450 + \$1,400 + \$600 = \$3,070

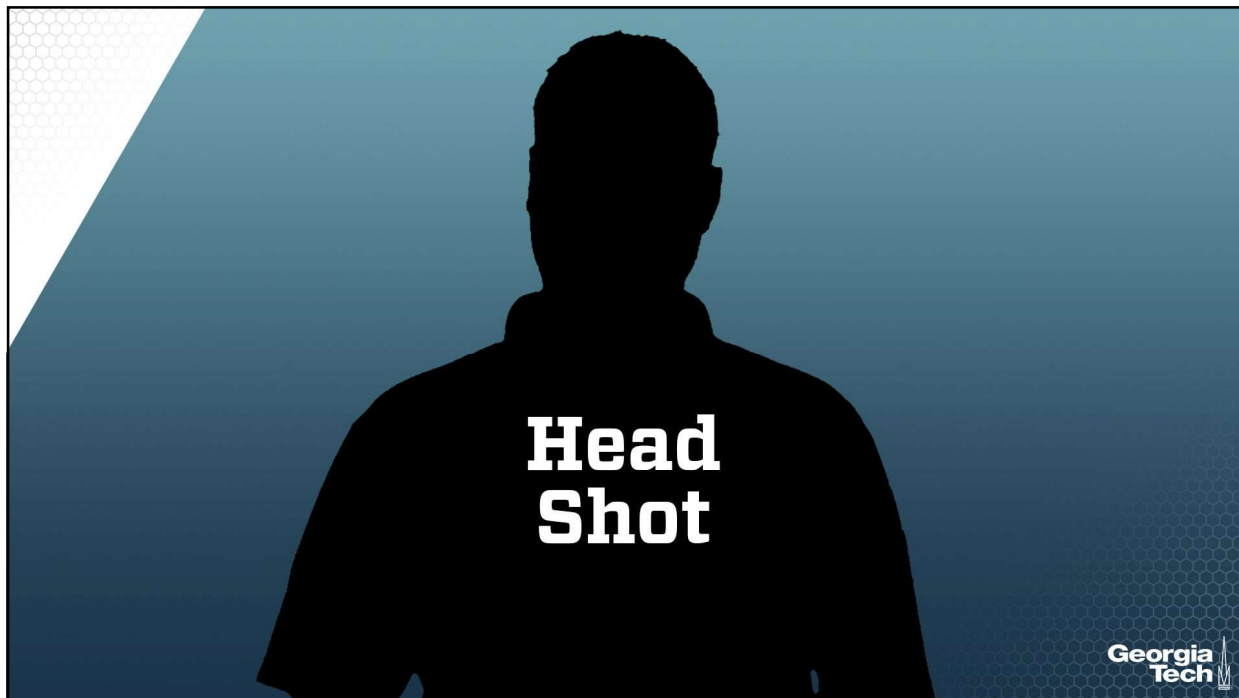
Bad Debt Expense = \$3,070 – \$1,800 = \$1,270

[NCR, p. 61]

"NCR establishes provisions for doubtful accounts using percentages of accounts receivable balances to reflect historical average credit losses and specific provisions for known issues." [NCR, p. 61]



7



8

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider

Professor

Scheller College of Business

Notes Receivable



9

Notes Receivable

- Formal contracts signed when a customer buys merchandise or services on credit.
- Specify due dates for the payments, interest that must be paid, the interest rates
- Classified as a current or long-term asset, depending on due date.



10

Notes Receivable Terminology

Principal: The face amount of the note (amount borrowed).

Interest Rate: A percentage of the principal the maker is charged to borrow money.

Maturity Value: Principal plus interest

Interest = Principal x Interest Rate x Time



11

Example of Interest Calculation

On January 1, a company sold equipment and received a 90-day, \$5,000 note. The interest rate is 14%.

Interest = \$5,000 x 0.14 x 90/365 = \$172.60



12

Notes Receivable

- Factoring Accounts Receivable
- Discounting Notes Receivable

Contingent liabilities from discounting or factoring with recourse

Example:

Co. A sells equipment to Co. B in exchange for N/R

Before due date, N/R is discounted at bank with recourse

If Co. B defaults, bank can go after Co. A.

This contingent liability would just be disclosed in the notes to the financial statements



13

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider

Professor

Scheller College of Business

Inventory & Cost of Goods Sold



14

Inventory

Goods either manufactured or purchased for resale.

Ownership

- Goods in Transit
Whoever is responsible to pay for the shipping records the inventory on its balance sheet.
- Goods on Consignment:
Rather than selling merchandise to another company, a company will give those goods on consignment telling them that if they don't sell the merchandise, they can return it to them or if they do sell the merchandise, they can keep a certain percentage



15

Cost of Goods Sold (CGS)

Beginning inventory
+ Net purchases
- Ending inventory
= Cost of goods sold



16

Net Purchases

Purchases
 + Freight-in
 - Purchase returns & allowances
- Purchase discounts
 = Net purchases

Georgia
Tech

17

Inventory & Cost of Goods Sold

Sales
- Cost of goods sold
 = Gross Margin

Gross Method vs. Net Method

Example: Sale of item that cost \$150 for \$250.

<u>Gross Method</u>		<u>Net Method</u>
\$250	Sales Revenue	\$100
<u>\$150</u>	CGS	<u>\$0</u>
\$100	Gross Margin	\$100

[UPS, page 83]

"Based on our evaluation of the control model, we determined that all of our major businesses act as the principal rather than as the agent within their revenue arrangements. This required a change in reporting for certain of our Supply Chain & Freight businesses where previously revenue was reported net of associated purchased transportation costs. Revenue and the associated purchased transportation costs are now both reported on a gross basis within our statements of consolidated income." [UPS, page 83]

Georgia
Tech

18

Inventory & Cost of Goods Sold (Cont'd)

Perpetual Inventory System

- Records updated when purchase or sale is made.
- Most often used when each item has a relatively high value.

Periodic Inventory System

- Records are *not* updated when a purchase or a sale is made.
- Used when inventory is composed of a large number of diverse items, each with a relatively low value.



19


[Home Depot, p. 36]

"Independent physical inventory counts or cycle counts are taken on a regular basis in each store and distribution center to ensure that amounts reflected in merchandise inventories are properly stated. Shrink, or in the case of excess inventory, swell, is the difference between the recorded amount of inventory and the physical inventory."

[Home Depot, p. 36]



20



Business Fundamentals for Analytics

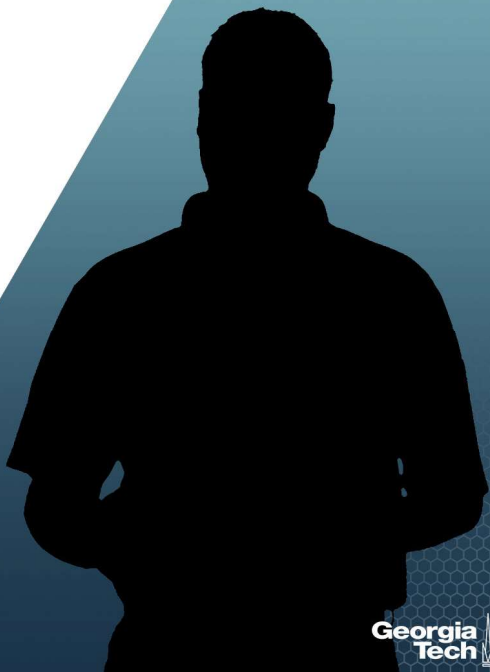
Financial Accounting

Arnold Schneider
Professor
Scheller College of Business

Inventory Cost Flows

Georgia Tech

21



Cost Flow Assumptions

- **Specific identification**
When we can identify which batch a product came from and determine the cost exactly.
- **First-in, first-out (FIFO)**
Presumes that the cost of the merchandise sold is coming from the earliest batches purchased.
- **Last-in, first-out (LIFO)**
Presumes that what's being sold first is the latest purchases that were made.
- **Weighted average**
Involves an average cost of all the purchases made, weighted by the number of units.

Georgia Tech

22

Inventory Cost Flows: Example

Kernel King buys and sells corn and had the following transactions in June:

June 5—Purchased 10 tons at \$6 per ton.

June 18—Purchased 10 tons at \$9 per ton.

June 27—Sold 10 tons at \$11 per ton.

How much did Kernel King make in June?

	Case #1: <i>Sold Old Corn</i>	Case #2: <i>Sold New Corn</i>	Case #3: <i>Sold Mixed Corn</i>
Sales (\$11 x 10 tons)	\$110	\$110	\$110
CGS (10 tons)	<u>60</u>	<u>90</u>	<u>75</u>
Gross margin	\$50	\$20	\$35



23

Inventory Cost Flows

LIFO gives a better reflection of cost of goods sold (CGS)

→ LIFO is a better measure of income.

With LIFO, you have the most up-to-date cost of goods sold, and therefore LIFO is considered to give you a better measure of income than FIFO.

FIFO gives a better measure of ending inventory

→ FIFO is a better measure for the balance sheet.

FIFO presumes you're selling the earliest merchandise first, and therefore what you have left in the ending inventory is the most recent purchases, the most up-to-date cost.

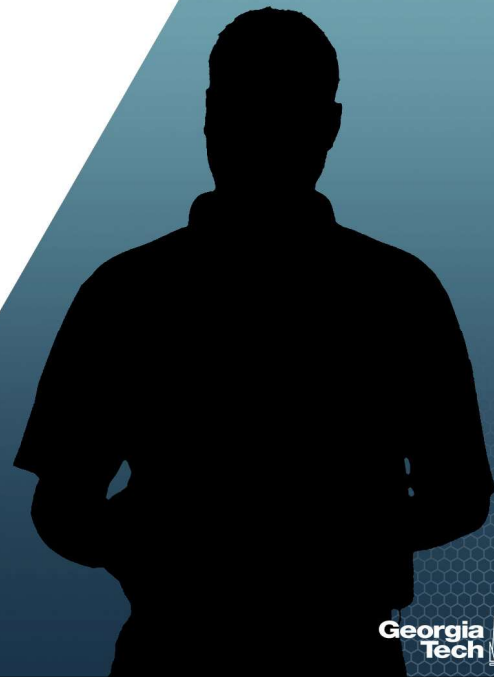


24

LIFO Conformity Rule

The government has ruled that a company cannot have its cake and eat it too with inventories. They have come up with this LIFO conformity rule:

If a company uses LIFO for income tax purposes, it must also use LIFO for financial reporting.



Georgia
Tech

25

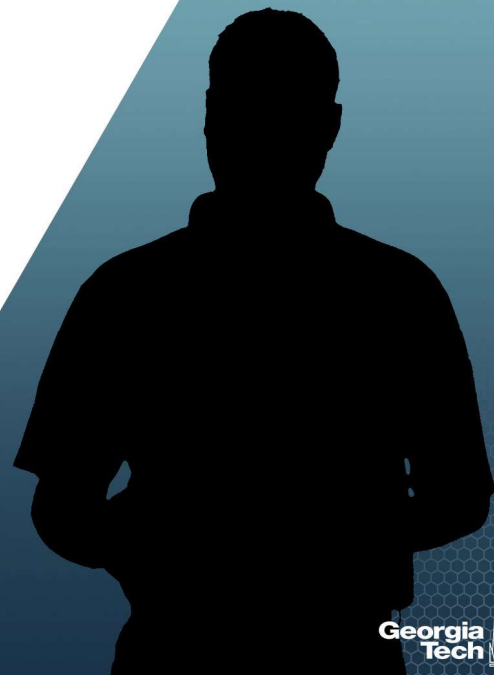
Lower of Cost or NRV

Lower of Cost or Net Realizable Value (NRV)

Inventories are reported at the lower of the cost amount or the net realizable value, which is essentially a market value less any selling or disposal costs.

Inventory is reported at less than cost when:

- the future value of the inventory is in doubt (damaged, used, or obsolete); or
- it can be replaced new at a price less than the original cost.



Georgia
Tech

26

Lower of Cost or NRV Example

[NCR, p. 61]

"Inventories are stated at the lower of cost or net realizable value using the average cost method."

"The company regularly reviews inventory quantities on-hand, future purchase commitments with suppliers, and the estimated utility of inventory. If the review indicates a reduction in utility below carrying value, inventory is reduced to a new cost basis. Excess and obsolete write-offs are established based on forecasted usage, orders, technological obsolescence, and inventory aging." [NCR, p. 61]



27

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider

Professor

Scheller College of Business

Prepaid Expenses & Investments



28

Prepaid Expenses & Investments

Prepaid Expenses

- Prepaid Rent
- Prepaid Insurance

Transferred to expenses over time (when benefits are received)

Because of the matching principle, we do not record these as expenses when the payment is made, but rather we spread the expenses over the periods that we're benefiting from these expenditures.



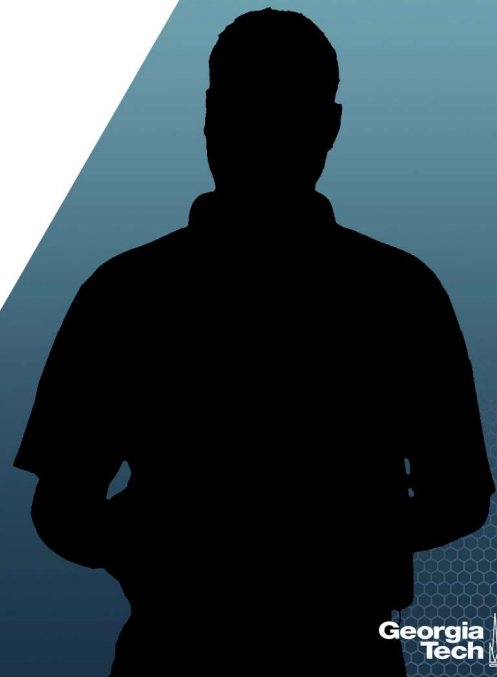
29

Marketable Securities

Short term investments in stock or bonds

- Stocks reported at Market ("Mark to market")
[UPS, p. 84]

"Marketable securities are either classified as trading or available for sale securities and are carried at fair value."



30

Marketable Securities (Cont'd)

- Short term investments in stock or bonds
 - Stocks reported at Market ("Mark to market") [UPS, p. 84]
 - Bonds reported at Cost if intention is to hold to maturity; if not, reported at market

2018	Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Current trading marketable securities:				
Corporate debt securities	\$ 137	-	-	\$ 137
Equity securities	2			2
Total trading marketable securities	139	-	-	139
Current available-for-sale marketable securities:				
U.S. government and agency debt securities	297	1	(1)	297
Mortgage and asset-backed debt securities	82	-	(1)	81
Corporate debt securities	275	-	(2)	273
Non-U.S. government debt securities	20	-	-	20
Total available-for-sale marketable securities	674	1	(4)	671
Total current marketable securities	\$ 813	\$ 1	\$ (4)	\$ 810



31

Long-term Investments

Ownership of >50% of company's stock

→ Consolidated Financial Statements
[Home Depot, p. 36]

"The consolidated financial statements include our accounts and those of our wholly owned subsidiaries. All significant intercompany transactions have been eliminated in consolidation." [Home Depot, p. 36]

Ownership of 20% - 50% of company's stock

→ Equity Method [NCR, p. 56]

"Long term investments in affiliated companies in which NCR owns between 20% and 50%, and therefore exercises significant influence, but which it does not control," meaning it does not own more than 50%, "are accounted for using the equity method." [NCR, p. 56]

Ownership of < 20% of company's stock

→ Same as for Short-term Investments



32

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider

Professor

Scheller College of Business

Property, Plant & Equipment



33

Property, Plant & Equipment

Fixed (Tangible) Assets

- Land (no depreciation)
- Buildings, Equipment, Land Improvements (depreciation)
- Natural resources (depletion)

Intangible Assets (Amortization)

[UPS, p. 105]

Depreciation, Depletion, Amortization:

The process of cost allocation that assigns the cost of the asset to the periods benefited.

UPS Property, Plant, and Equipment
Vehicles
Aircraft
Lands
Buildings
Building and leasehold improvements
Plant equipment
Technology equipment
Equipment under operating leases
Construction-in-progress
Less: Accumulated depreciation and amortization



34

Property, Plant & Equipment Example

[UPS, p. 105]

UPS Property, Plant, and Equipment		
	2018	2017
Vehicles	\$ 9,820	\$ 9,365
Aircraft	17,499	16,248
Lands	2,000	1,582
Buildings	4,808	4,035
Building and leasehold improvements	4,323	3,934
Plant equipment	11,833	9,387
Technology equipment	2,093	1,907
Equipment under operating leases	-	29
Construction-in-progress	2,112	2,239
	54,488	48,726
Less: Accumulated depreciation and amortization	(27,912)	(26,608)
	\$ 26,576	\$ 22,118



35

Self-Constructed Assets

Cost includes all expenditures incurred to build the asset and make it ready for its intended use:

- materials used to build the asset
- construction labor
- share of the general company overhead
- capitalized interest

[UPS, p. 70]

"Interest incurred during the construction period of certain property, plant and equipment is capitalized, until the underlying assets are placed in service." [UPS, p. 70]



36

Expenditures on Existing Assets

Ordinary Expenditures:

Typically benefit only the period in which they are made (repairs, maintenance, and minor improvements).

→ Expensed on income statement.

Capitalized Expenditures:

Benefit the company over several periods, not just the current one.

→ Capitalized on balance sheet.

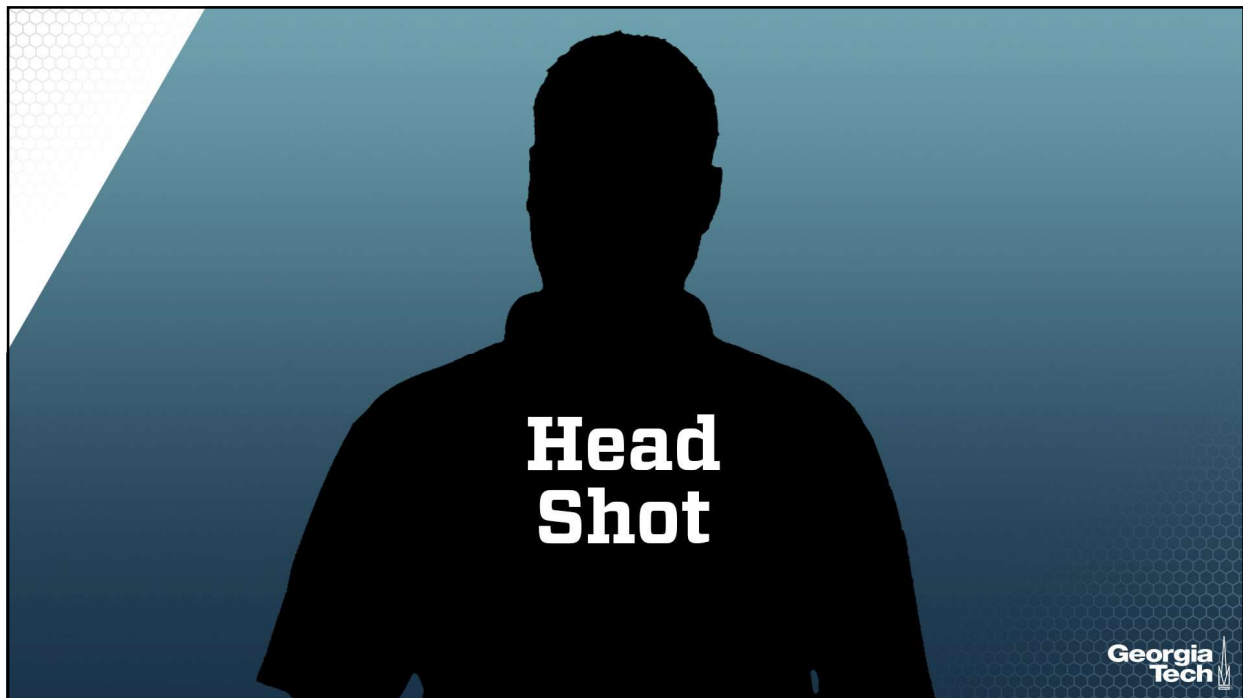
Criteria: Increase productive life or capacity of the asset.

[UPS, p. 70]

"For substantially all of our aircraft, the cost of major airframe and engine overhauls, as well as routine maintenance and repairs, are charged to expense as incurred." [UPS, p. 70]



37





38

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider
Professor
Scheller College of Business

Depreciation




39

Determining Depreciation

- Estimate of useful (intended) life
- Estimate of salvage (residual, scrap) value

[UPS, p.70]

"Depreciation and amortization are provided by the straight-line method, over the estimated useful lives of the assets, which are as follows:
Vehicles- 6 to 15 years; Aircraft- 12 to 30 years; Buildings- 20 to 40 years;
Leasehold improvements- lesser of asset useful life or lease term; Plant equipment, 3 to 20 years; and Technology equipment, 3 to 5 years". [UPS, p.70]



40

Methods of Depreciation

1. Straight-Line

The cost of the asset is allocated equally over the periods of an asset's estimated useful life.

$$\text{Annual amount} = (\text{Cost} - \text{Salvage Value}) / \text{Useful Life}$$

2. Units of output

3. Accelerated Depreciation

- Sum-of-years-digits
- Double declining balance



41

Balance Sheet Presentation

Equipment

- Accumulated Depreciation → "Contra-asset"

Equipment (net) → Book Value

[Home Depot, p. 45]

Home Depot, Inc. Property and Leases	
Land	
Buildings	
Furniture, fixtures, and equipment	
Leasehold improvements	
Construction in progress	
Capital leases	
Property and equipment, at cost	
Less accumulated depreciation and capital lease amortization	
Net property and equipment	



42

Disposal of Assets

Proceeds > Book Value → Gain on sale

Proceeds < Book Value → Loss on sale

Natural Resources

Depletion expense – similar to Units of Output method of depreciation



43

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider

Professor

Scheller College of Business

Intangible Assets



44

Intangible Assets

Definite life – amortization over min(economic life, legal life)

[NCR, p. 72]

"NCR's purchased intangible assets were specifically identified when acquired and are deemed to have finite lives." [NCR, p. 72]

NCR Corporation, Notes to Consolidated Financial Statements	
<i>In millions</i>	Amortization Period (in Years)
Identifiable intangible assets	
Reseller & customer relationships	1-20
Intellectual property	2-8
Customer contracts	8
Tradenames	2-10
Total identifiable intangible assets	



45

Intangible Assets (Cont'd)

Definite life – amortization over min(economic life, legal life)

[UPS, p. 71]

"Finite-lived intangible assets, including trademarks, licenses, patents, customer lists, non-compete agreements, and franchise rights are amortized on a straight-line basis over the estimated useful lives of the assets, which range from 2 to 22 years."
[UPS, p. 71]



46

Intangible Assets (Cont'd)

Indefinite life – impairment

[UPS, p. 71]

“A trade name with a carrying value of \$200 million and licenses with a carrying value of \$5 million as of December 31, 2018 are considered to be indefinite-lived intangible assets, and therefore are not amortized. Indefinite-lived intangible assets are reviewed for impairment at least annually.” [UPS, p. 71]

[Home Depot, p. 38]

“Intangible assets with indefinite lives are tested in the third quarter of each fiscal year for impairment, or more often if indicators warrant.” [Home Depot, p. 38]

“In January 2019, we recognized a pretax impairment loss of \$247 million for certain trade names as a result of a shift in strategy for our MRO business.” [Home Depot, p. 38]



47

Goodwill

Purchase price of business – fair market value of net assets (if > 0)
(tested annually for impairment)

[UPS, p. 71]

“Costs of purchased businesses in excess of net identifiable assets acquired, in other words goodwill, and indefinite-lived intangible assets are tested for impairment at least annually, unless changes in circumstances indicate an impairment may have occurred sooner.” [UPS, p. 71]

[NCR, p. 71]

“Late in the quarter ended June 30, 2018, we determined there was an indication that the carrying value of the net assets assigned to the Hardware reporting unit may not be recoverable.” [NCR, p. 71]

“As a result, in the three months ended June 30, 2018, the Company recorded impairment charges of \$21 million related to property, plant, and equipment held and used in NCR’s hardware reporting unit, \$16 related to purchased intangibles and \$146 million for goodwill assigned to the Hardware reporting unit.” [NCR, p. 71]



48



49

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider
Professor
Scheller College of Business

Research & Development

Georgia Tech

A presentation slide with a white background on the left and a blue gradient background on the right. The right side features a black silhouette of a person's head and shoulders. The text is arranged on the left side. The Georgia Tech logo is in the bottom right corner.

50

Research & Development

Research and Development (R&D) generally must be expensed

[NCR, p. 58]

“Research and development costs primarily include payroll and benefit-related costs, contractor fees, facilities costs, infrastructure costs, and administrative expenses directly related to research and development support and are expensed as incurred, except certain software development costs that are capitalized after technological feasibility of the software is established.” [NCR, p. 58]

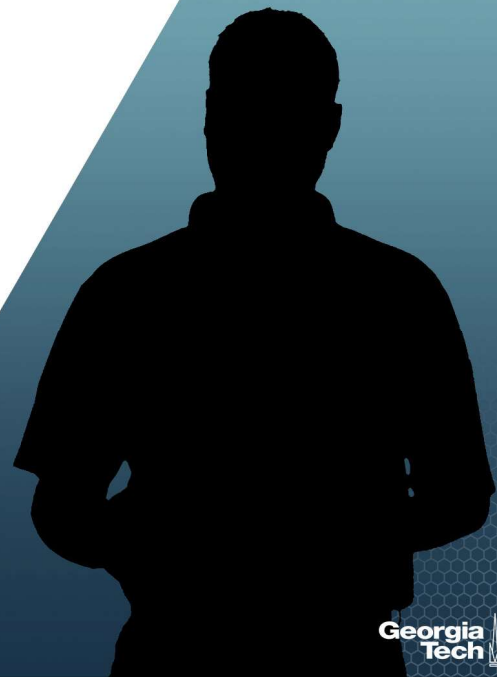


51

Software Development Costs

Special form of R&D which may be capitalized (economic viability can be determined more accurately and earlier than other R&D).

Capitalization begins when “technological feasibility” is reached. Software costs incurred up to this point are expensed as R&D.

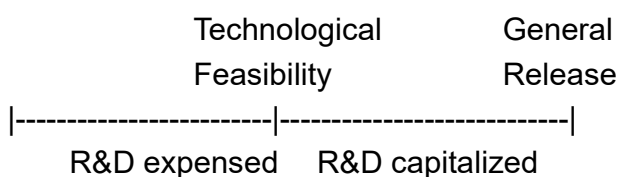


52

Technological Feasibility

Sufficient development progress has been made to ascertain that the software will meet its design specifications. (It will work.)

Capitalization ends and amortization begins when the product is available for general release.



53

Technological Feasibility (Cont'd)

[NCR, p. 62]

“Costs incurred for the development of software that will be sold, leased, or otherwise marketed are capitalized when technological feasibility has been established. These costs are included within other assets and are amortized on a sum-of-the-years' digits or straight-line basis.” [NCR, p. 62]

“Over the estimated useful lives ranging from three to five years, using the method most closely approximates the sales pattern of the software. Amortization begins when the product is available for general release. Costs capitalized include direct labor and related overhead costs. Costs incurred prior to technological feasibility or after general release are expensed as incurred”. [NCR, p. 62]



54

Business Fundamentals for Analytics

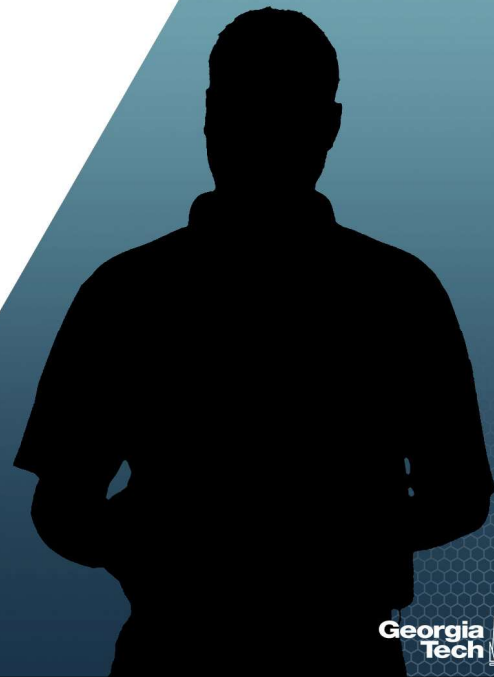
Financial Accounting

Arnold Schneider

Professor

Scheller College of Business

Liabilities



Georgia
Tech

55

Current Liabilities

Debts and other obligations due within one year

Examples of Current Liabilities:

- Accounts payable
- Wages payable
- Income taxes payable
- Accrued interest
- Unearned revenues



Working Capital = Current Assets – Current Liabilities

Georgia
Tech

56

Contingent Liabilities

- If probable & can be reasonably estimated → liability on balance sheet
(Most common: Warranty liabilities)
[NCR, p. 58]

"Provisions for product warranties and sales return allowances are recorded in the period in which NCR becomes obligated to honor the related right, which generally is the period in which the related product revenue is recognized." [NCR, p. 58]

"The company accrues warranty reserves, based upon historical factors such as labor rates, average repair time, travel time, number of service calls per machine, and cost of replacement parts. When a sale is consummated, a warranty reserve is recorded, based on the estimated cost to provide the service over the warranty period." [NCR, p. 58]



57

Contingent Liabilities (Cont'd)

- If reasonably possible OR cannot be reasonably estimated → disclosure in notes

(Most common: Lawsuits)

[UPS, p. 111]

- If remote → no need to disclose

"We accrue for legal claims when, and to the extent that, amounts associated with the claims become probable and can be reasonably estimated." [UPS, p. 111]

"For those matters as to which we are not able to estimate a possible loss or range of loss, we are not able to determine whether the loss will have a material adverse effect on our business, financial condition, or results of operations of liquidity. For matters in this category, we have indicated in the descriptions that follow the reasons that we are unable to estimate the possible loss or range of loss." [UPS, p. 111]



58

Long-term Liabilities

Debts and other obligations not due within one year.

(Transferred to current liability status the year before due date.) [UPS, p. 66]

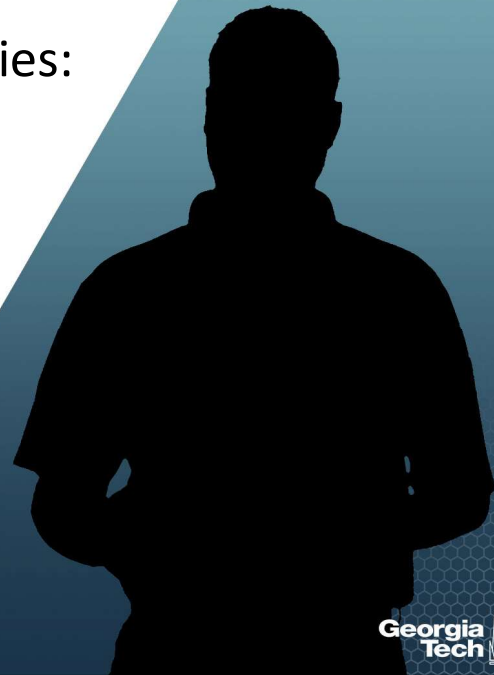
UPS, INC. and Subsidiaries Consolidated Balance Sheets		
LIABILITIES AND SHAREOWNERS' EQUITY		December 31
	2018	2017
Current Liabilities:		
Current maturities of long-term debt and commercial paper	\$ 2,805	\$ 4,011
Accounts payable	5,188	3,934
Accrued wages and withholdings	3,047	2,608
Self-insurance reserves	810	705
Accrued group welfare and retirement plan contributions	715	677
Other current liabilities	1,522	951
Total Current Liabilities	14,087	12,886



59

Examples of Long-term Liabilities:

- Notes payable
- Mortgages payable
- Lease obligations
- Deferred taxes
- Bonds payable
- Pension obligations



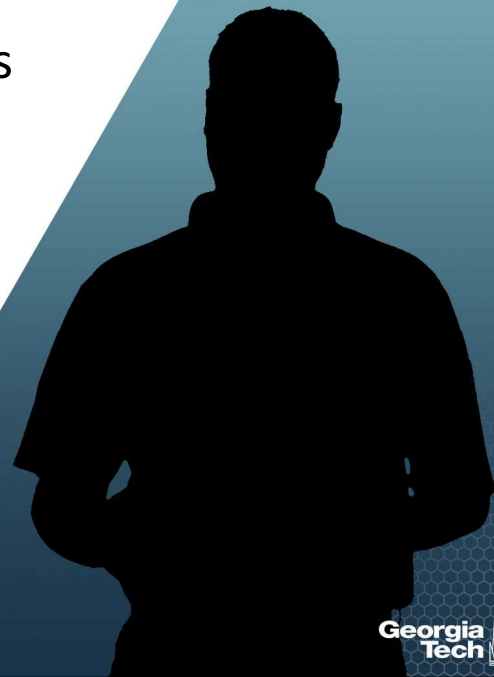
60

Recording Long-term Liabilities

Measurement and recording of long-term liabilities are based on the time value of money concept.

Present Value of Liability:

Future amounts are discounted to obtain present value



Georgia
Tech

61

Lease Obligations

- **Operating Lease** -- A simple short-term rental agreement.
- **Capital Lease** -- Asset and liability are recorded at present value of future payments (i.e., treated as a purchase). Criteria: lease term more than one year.

[Home Depot, page 45 and 46]

Georgia
Tech

62

Lease Obligations (Example)

- Lease obligations [Home Depot, p.45]

Home Depot, Inc. Property and Leases	
Land	
Buildings	
Furniture, fixtures, and equipment	
Leasehold improvements	
Construction in progress	
Capital leases	
Property and equipment, at cost	
Less accumulated depreciation and capital lease amortization	
Net property and equipment	



63

Lease Obligations (Example)

- Lease obligations [Home Depot, p.46]

<i>In millions</i>	Operating Leases	Capital Leases
Fiscal 2019	\$ 976	\$ 156
Fiscal 2020	912	167
Fiscal 2021	792	143
Fiscal 2022	682	142
Fiscal 2023	584	137
Thereafter	3,090	970
	<u>7,036</u>	<u>1,709</u>
Less imputed interest		660
Net present value of capital lease obligations		1,049
Less current installments		57
Long-term capital lease obligations, excluding current installments		\$ 992



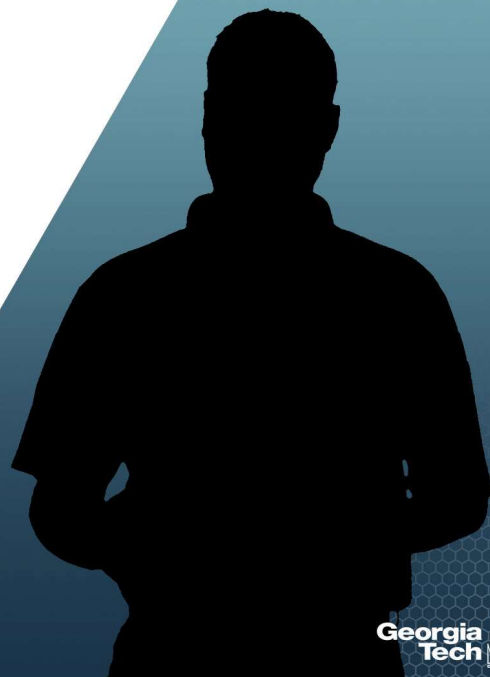
64

Deferred Taxes

Results from timing differences between taxable income on Income Statement and taxable income for IRS.

[Sometimes they are assets rather than liabilities]

[NCR, p. 80]



65

Deferred Taxes (Example)

[NCR, p.80]

Deferred income tax assets
Employee pensions and other benefits
Other balance sheet reserves
Tax loss and credit carryforwards
Capitalized research and development
Property, plant and equipment
Other
Total deferred income tax assets
Valuation allowance
Net deferred income tax assets
Valuation allowance
Net deferred income tax assets
Deferred income tax liabilities
Intangibles
Capitalized software
Other
Total deferred income tax liabilities
Total net deferred income tax assets





66

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider
Professor
Scheller College of Business

Bonds


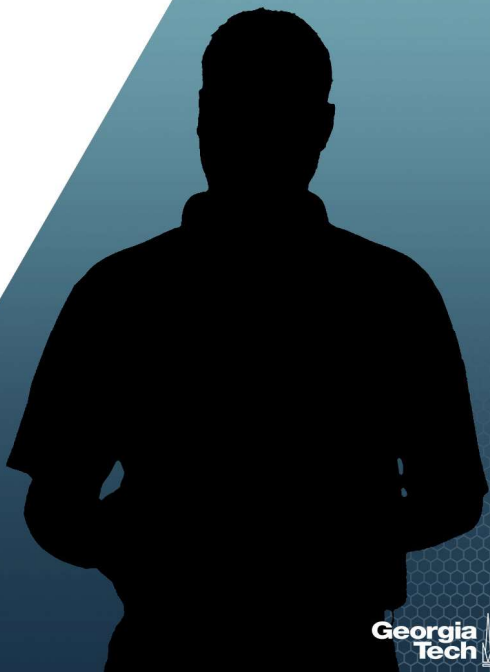


67

Bonds Payable

Debt instruments sold to public & publicly traded (company must repay principle plus interest)

Face Value = Amount to pay when bond matures (not necessarily the initial selling price of bond)



68

Bond Discounts and Premiums

Stated interest rate < Market interest rate → Discount

Stated interest rate > Market interest rate → Premium

[UPS, p. 106]

UPS, INC. and Subsidiaries Consolidated Balance Sheets				
	Principal Amount	Maturity	Carrying Value	
			2018	2017
8.375% Debentures				
8.375% debentures	424	2020	419	447
8.375% debentures	276	2030	274	282



69

Balance Sheet Presentation

Balance Sheet Presentation of Discount:

Bonds Payable	\$100,000
Less: Discount on B/P	<u>3,000</u>
Bonds Payable (net)	\$97,000 → carrying value

Balance Sheet Presentation of Premium:

Bonds Payable	\$100,000
Add: Premium on B/P	<u>4,000</u>
Bonds Payable (net)	\$104,000 → carrying value



70

Bonds

- Convertible Bonds
- Callable Bonds (gain or loss on early retirement)
 - Cash paid > Carrying value → Loss on retirement
 - Cash paid < Carrying value → Gain on retirement



[UPS, page 107]

“These debentures are redeemable in whole or in part at our option at any time.”



71

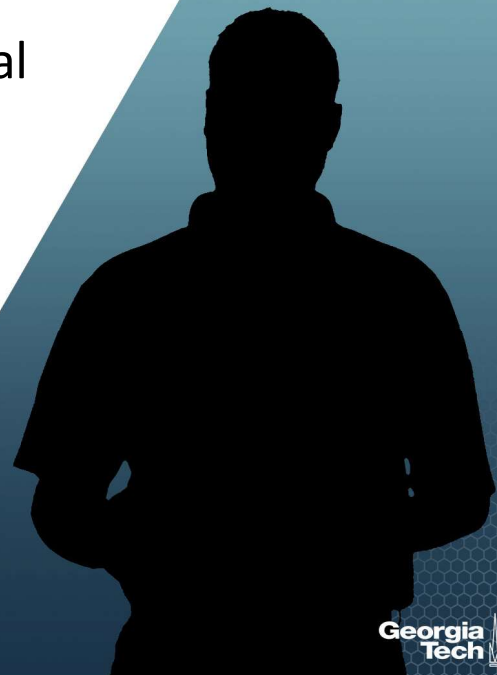
Properties of Bonds and Capital Stock

Properties of Bonds

- Must repay bonds
- Must pay interest
- Interest reduces net income
- No dilution of ownership

Properties of Capital Stock

- No repayment of stock
- Need not pay dividends
- Dividends do not reduce net income
- Dilutes ownership



72

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider

Professor

Scheller College of Business

Capital Stock



73

Capital Stock

Stockholders' Equity = Paid-in-Capital + Retained Earnings

Paid-in-Capital: Accounts involving capital stock



74

Shares of Stock

#Authorized = #Issued (sold) + #Unissued

#Issued = #Outstanding + #Treasury

[Home Depot, p. 31]

“Common Stock, par value \$0.05; **authorized, 10,000 shares; issued 1,782 at February 3, 2019** and 1,780 shares at January 28, 2018; **outstanding: 1,105 shares at February 3, 2019** and 1,158 shares at January 28, 2018.” [Home Depot, p. 31]



Common Stock vs. Preferred Stock

[NCR, p. 53]

NCR Corporation Consolidated Balance Sheets		
NCR stockholders' equity	2018	2017
Preferred stock: par value \$0.01 per share, 100.0 shares authorized, no shares issued and outstanding as of December 31, 2018 and 2017, respectively	-	-
Common stock: par value \$0.01 per share, 500.0 shares authorized, 118.7 and 122.0 shares issued and outstanding as of December 31, 2018 and 2017, respectively	1	1

Preferred Stock has preferences in:

- Dividends
- Liquidation

Common Stock vs. Preferred Stock (Cont'd)

Common Stock has main voting rights (sometimes different classes). [UPS, p. 113]

"We maintain two classes of common stock, which are distinguished from each other by their respective voting rights. Class A shares of UPS are entitled to 10 votes per share, whereas class B shares are entitled to one vote per share. Class A shares are primarily held by UPS employees and retirees, as well as trusts and descendants of the Company's founders, and these shares are fully convertible into Class B shares at any time. Class B shares are publicly traded on the New York Stock Exchange under the symbol UPS". [UPS, p. 113]

Convertible Preferred Stock [NCR, p. 73]

"The Series A Convertible Preferred Stock is convertible at the option of the holders at any time into shares of common stock at a conversion price of \$30 per share and a conversion rate of 33.333 shares of common stock per share of Series A Convertible Preferred Stock." [NCR, p. 73]



77

Par (Stated) Value

Nominal value assigned to and printed on the face of each share of a corporation's stock.

[NCR, p. 53]

NCR Corporation Consolidated Balance Sheets		
NCR stockholders' equity	2018	2017
Preferred stock: par value \$0.01 per share, 100.0 shares authorized, no shares issued and outstanding as of December 31, 2018 and 2017, respectively	-	-
Common stock: par value \$0.01 per share, 500.0 shares authorized, 118.7 and 122.0 shares issued and outstanding as of December 31, 2018 and 2017, respectively	1	1
Paid-in capital	34	60
Retained earnings	606	857
Accumulated other comprehensive loss	(246)	(199)
Total NCR stockholders' equity	395	719



78

Par (Stated) Value (Cont'd)

- Discount below par not allowed
- Premium allowed and usually labeled "Additional Paid-in-Capital"

[NCR, p. 53]

NCR Corporation Consolidated Balance Sheets		
NCR stockholders' equity	2018	2017
Preferred stock: par value \$0.01 per share, 100.0 shares authorized, no shares issued and outstanding as of December 31, 2018 and 2017, respectively	-	-
Common stock: par value \$0.01 per share, 500.0 shares authorized, 118.7 and 122.0 shares issued and outstanding as of December 31, 2018 and 2017, respectively	1	1
Paid-in capital	34	60
Retained earnings	606	857
Accumulated other comprehensive loss	(246)	(199)
Total NCR stockholders' equity	395	719



79

Treasury Stock

- "Contra-equity" account (not an asset)

[Home Depot, p. 31]

Home Depot, Inc. Consolidated Balance Sheets		
	2018	2017
Treasury stock, at cost, 677 shares at February 3, 2019 and 622 shares at January 28, 2018	(58,196)	(48,195)

- Purchase of treasury stock is recorded at cost
- No gain or loss reported on sales of treasury stock



80

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider

Professor

Scheller College of Business

Cash Dividends



81

Dividend Dates

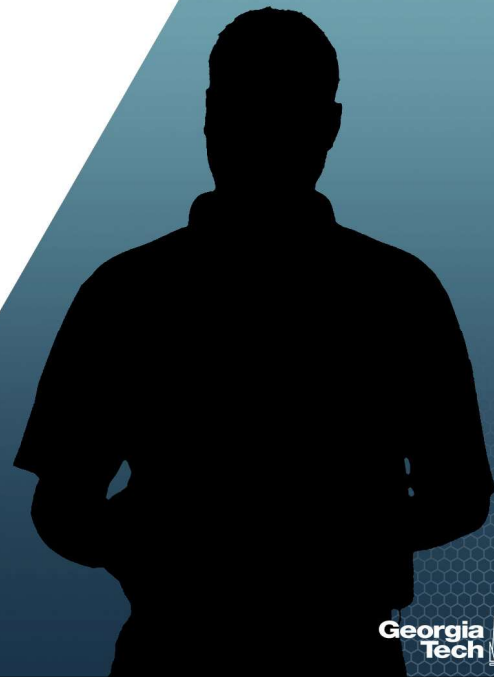
- **Date of Declaration → liability**
When the board of directors votes to pay dividends, and it is at that time that the dividend payment becomes a liability of the corporation.
- **Date of Record**
Indicates who is to receive the dividends
- **Date of Payment**
When the cash dividends are actually paid out by the company.



82

Dividend Preferences

- Current Dividend Preference
- Cumulative Dividend Preference



83

Current Dividend Preference

- Preferred stockholder get a % of total par
- Common stockholders get remainder

Example:

Company has 10,000 shares of 5% P. Stock, \$10 par

Current dividend preference = $.05 \times 10,000 \times \$10 = \$5,000$



84

Cumulative Dividend Preference

- Preferred stockholder gets current dividend preference + dividends in arrears (missed dividends from past years)
- Common stockholder gets remainder

Example:

Company has 10,000 shares of 5% P. Stock, \$10 par; no dividends paid for past 3 years prior to current year.

Cumulative Dividend Preference = $\$5,000 \times 4 = \$20,000$



85

Dividends in Arrears

- Do not represent actual liabilities and thus are not recorded in the accounts.
- Reported in the notes to the financial statements.

[NCR, p. 73]

“Holders of Series A Convertible Preferred Stock are entitled to a cumulative dividend at the rate of 5.5% per annum, payable quarterly in arrears.” [NCR, p. 73]



86

Business Fundamentals for Analytics

Financial Accounting

Arnold Schneider

Professor

Scheller College of Business

Other Stockholders' Equity Items



87

Stock Dividends

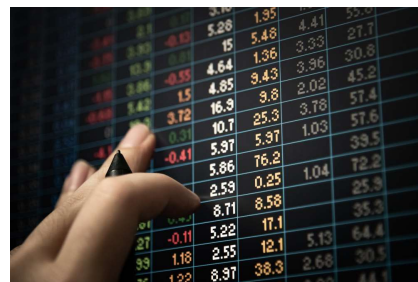
Distribution of additional stock in proportion to current holdings

Effects of Stock Dividends

- Increases # of shares outstanding
- Transfers Retained Earnings to Paid-in-Capital

Stock Dividends have **no effect** on:

- Assets
- Total stockholders' equity
- % ownership of stock by shareholders



88

Stock Splits

- Increases # of shares
- Decreases par value per share
 - No effect on accounts

Why do companies do stock splits?

- To reduce the market value per share of their stock -- to make it more affordable for the everyday person to buy their stock.



89

Reverse Stock Splits

- Decreases # of shares
- Increases par value per share
 - No effect on accounts

Why do companies do reverse stock splits?

- Various stock exchanges have rules about the minimum trading price of the stock.
- Certain institutional investors have rules about the market value per share of stocks they invest in



90

Noncontrolling Interests

In consolidated balance sheets, the portion of owners' equity not controlled by the parent company.

Reported in stockholders' equity section. [NCR, p. 53]

NCR Corporation Consolidated Balance Sheets		
NCR stockholders' equity	2018	2017
Preferred stock: par value \$0.01 per share, 100.0 shares authorized, no shares issued and outstanding as of December 31, 2018 and 2017, respectively	-	-
Common stock: par value \$0.01 per share, 500.0 shares authorized, 118.7 and 122.0 shares issued and outstanding as of December 31, 2018 and 2017, respectively	1	1
Paid-in capital	34	60
Retained earnings	606	857
Accumulated other comprehensive loss	(246)	(199)
Total NCR stockholders' equity	395	719
Noncontrolling interests in subsidiaries	4	3
Total stockholders' equity	399	722



91

Stock-Based Compensation

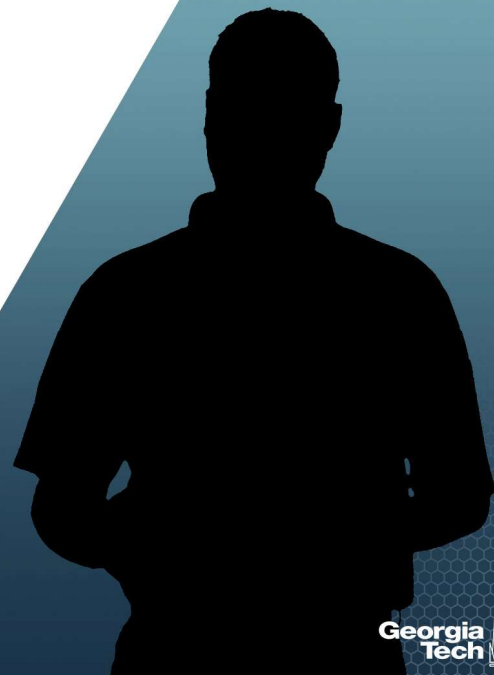
Must now expense.

[NCR, p. 81]

[UPS, p. 73]

"The Company recognizes all share-based payments as compensation expense in its financial statements based on their fair value." [NCR, p. 81]

"All share-based awards to employees are measured based on their fair values and expensed over the period during which an employee is required to provide service in exchange for the award." [UPS, p. 73]



92