15.516x Financial Accounting

Shareholders Equity and Earnings per Share

John Core
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Finance at MIT
Where ingenuity drives results

What We Have Done So Far

- Assets
  - Receivables
  - Inventories
  - Marketable Securities
  - PP&E
  - Intangible Assets
  - Goodwill

- Current Liabilities
  - Accounts payable
  - Deferred revenues
  - Wages payable

- Long–term Liabilities
  - Bonds
  - Leases

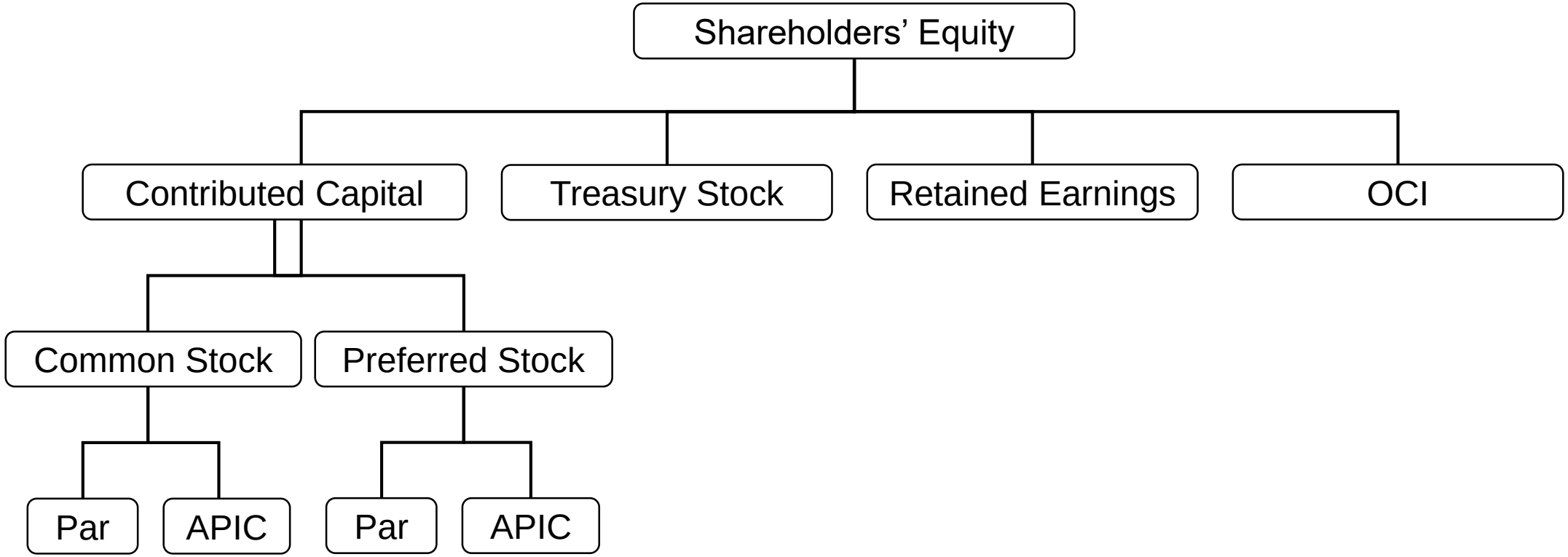
- Next: Shareholders' Equity…

Shareholders' Equity – Objectives

- Gain a better understanding of components of SE
  - Contributed Capital (stock issuance, common, preferred stock)
  - Treasury Stock (stock repurchases)

- How do the financial statements reflect corporate equity transactions?
  - Stock offerings
  - Stock splits
  - Stock repurchases
  - Employee stock and option compensation
  - Convertible debt and preferred

FlowChart of Shareholders' Equity



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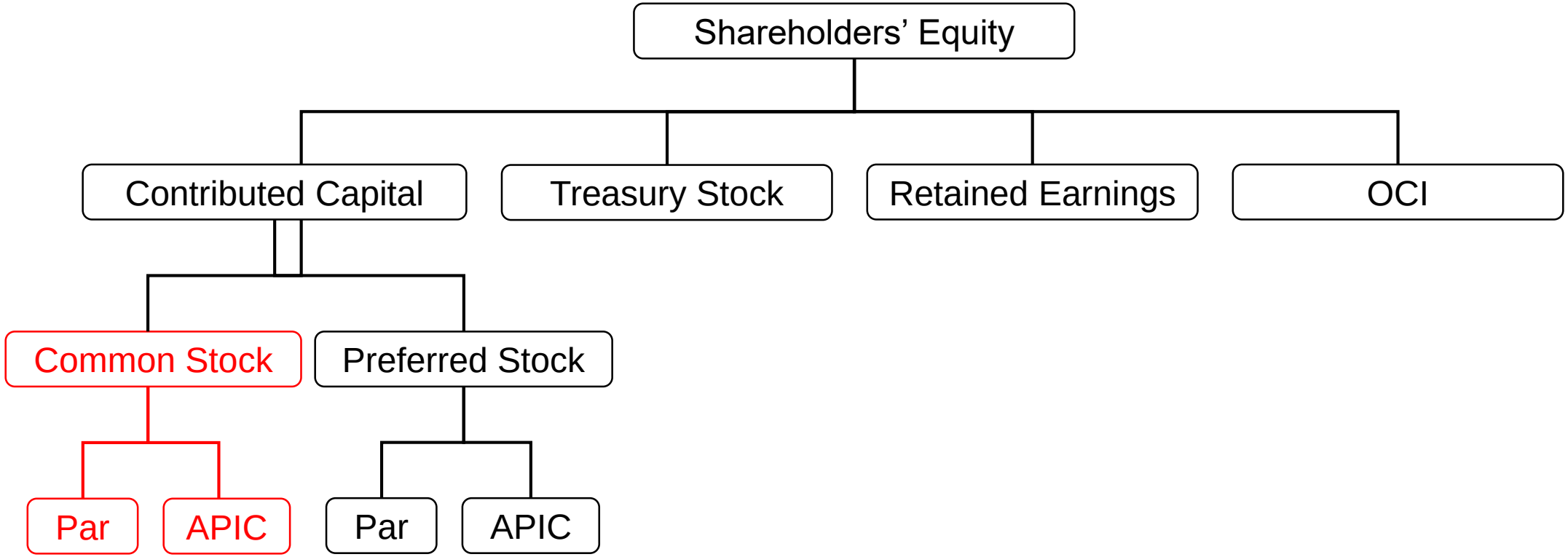

Contributed Capital: Common Stock

Common Stock – Basic residual ownership share in the corporation.

Common stockholders:

- Have the right to any residual value in the firm after other obligations (i.e., debt and preferred stock) are met
- Can vote on certain corporate issues

Common stock is divided into:

- "Par value"
  - Par value is the stated value on the face of the security
  - Some companies' stocks have no par value
  - Par value has no relation to market value (historical artifact)
  - Take par value as given and use to record stock transactions
- Additional paid-in capital (APIC)
  - The difference between capital raised and par value

AT&T Stockholders' Equity at 12/31/2019 and 2018 ($ in millions except per share amounts)

Stockholders' Equity				
Preferred stock ($1 par value, 5% cumulative, 10,000,000 authorized, 48,000 shares issued and outstanding at December 31, 2019 and 0 issued and outstanding at December 31, 2018)		-		-
Common stock ($1 par value, 14,000,000,000 authorized at December 31, 2019 and December 31, 2018: issued 7,620,748,598 at December 31, 2019 and at December 31, 2018)		**7,621**		7,621
Additional paid-in capital		**126,279**		125,525
Retained earnings		**57,936**		58,753
Treasury stock (366,193,458 at December 31, 2019 and 339,120,073 at December 31, 2018, at cost)		**(13,085)**		(12,059)
Accumulated other comprehensive income		**5,470**		4,249
Noncontrolling interest		**17,713**		9,795
Total stockholders' equity		**201,934**		193,884
Total Liabilities and Stockholders' Equity	**$**	**551,669**	$	531,864

Common stock = $1 par value X 7,621 million shares issued = $7,621 million

AT&T Authorized, Issued, and Treasury stock at 12/31/2019

Stockholders' Equity				
Preferred stock ($1 par value, 5% cumulative, 10,000,000 authorized, 48,000 shares issued and outstanding at December 31, 2019 and 0 issued and outstanding at December 31, 2018)		-		-
Common stock ($1 par value, 14,000,000,000 authorized at December 31, 2019 and December 31, 2018: issued 7,620,748,598 at December 31, 2019 and at December 31, 2018)		**7,621**		7,621
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Authorized, Issued and Outstanding Stock Shares
AT&T Balance Sheet 2019

	AT&T 2019
Authorized shares	
▪ Number of shares that can be sold/issued	14,000,000,000
Issued shares	
▪ Number of shares that are sold/issued	7,620,748,598
▪ There are shares authorized to be issued but not issued	6,379,251,402
▪ Issued shares ≤ authorized shares	
Outstanding shares (or "Shares Outstanding")	
▪ Number of issued shares actually owned by stockholders	7,154,555,140 = 7,620,748,598 Issued – 366,193,458 Treasury
▪ Outstanding shares = Issued shares – shares held in treasury	
▪ Outstanding shares ≤ issued shares ≤ authorized shares	

Authorized, Issued and Outstanding Stock Shares
AT&T Balance Sheet 2019

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Authorized shares — AT&T 2019

- Number of shares that can be sold/issued — 14,000,000,000

Issued shares

- Number of shares that are sold/issued — 7,620,748,598
- Issued shares ≤ authorized shares
- There are usually shares authorized but not issued — 6,379,251,402

Outstanding shares (or "Shares Outstanding")

- Number of issued shares actually owned by stockholders — 7,154,555,140 = 7,620,748,598 Issued – 366,193,458 Treasury
- Outstanding shares = Issued shares – shares held in treasury
- Outstanding shares ≤ issued shares ≤ authorized shares

Accounting for Stock Issuance

When we account for the issuance of common stock, we keep track of the par value of the stock and any additional capital that is received in excess of par value separately.

The funds that are received in addition to par value are called additional paid in capital (APIC).

For example, suppose that 4 million shares were issued for total cash received of $68 million. First, ignore par value.

Cash	=	**Common Stock/APIC**
68,000,000		68,000,000

How would this transaction change if each of the shares had par value of $0.001?

Cash	=	**Common Stock at Par**	+	**APIC**
68,000,000		4,000 (4M * $0.001 per share)		67,996,000

Tesla's Equity Issuance in March 2017

In March 2017, Tesla sold 1.536 million shares of stock at $262.00 per share for gross proceeds of $403 million. Tesla has a par value of $0.001 per share.

How would Tesla account for this transaction?

Assets		Shareholders' Equity	
Cash	=	Common Stock (par value .001)	APIC
403 million		1,536	403 million

Tesla 2017 Cash Flow from Financing

Cash Flows from Financing Activities	
Proceeds from issuances of common stock in public offerings	400,175
Proceeds from issuances of convertible and other debt	7,138,055
Repayments of convertible and other debt	(3,995,484)
Repayments of borrowings under Solar Bonds issued to related parties	(165,000)
Collateralized lease borrowings	511,321
Proceeds from exercises of stock options and other stock issuances	259,116
Principal payments on capital leases	(103,304)
Common stock and debt issuance costs	(63,111)

Difference between $403 million raised and $400 million cash inflow = $3 million = issuance costs (e.g., underwriting fees).

Accounting for stock issuance costs

Two ways to account for Tesla's $3 million in stock issuance costs:

1. Capitalize issuance costs (note APIC is higher)

A		**=**	**L +**	**SE**	
	Capitalized			Common Stock	
Cash +	Issuance Costs	=		at par	+ APIC
400 million	$3 million			$1,536	$403 million

2. Reduce APIC for issuance costs (how Tesla accounts for)

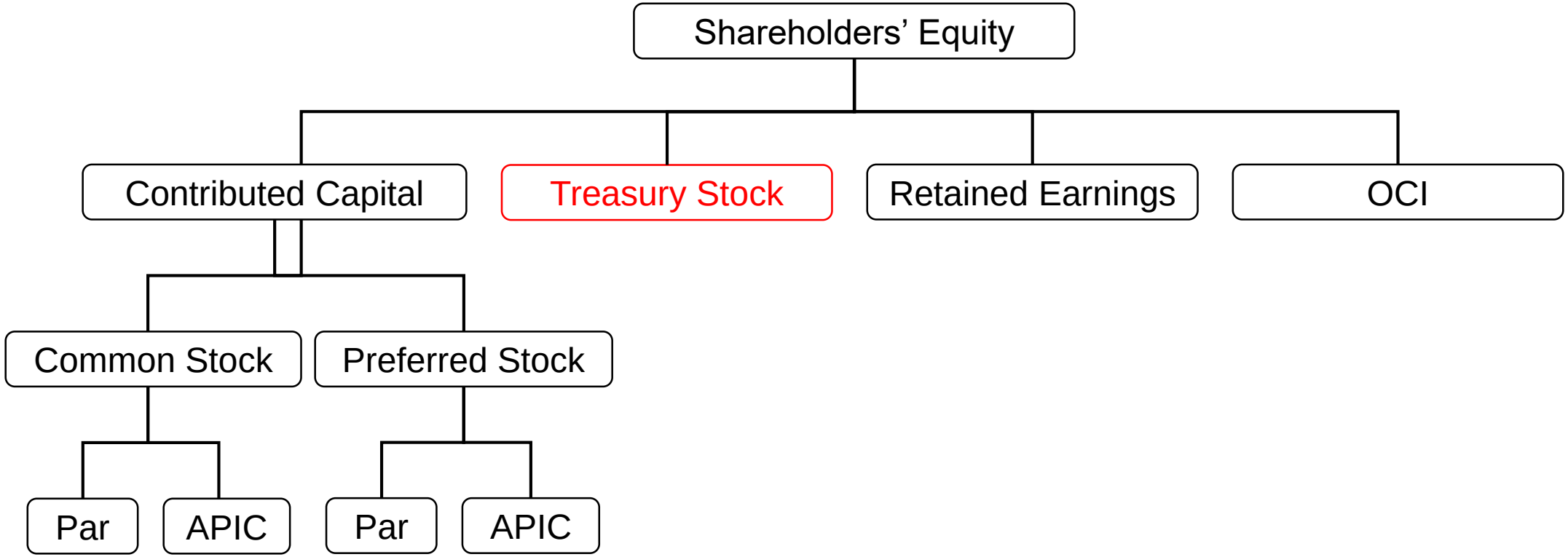
				Common Stock	
Cash =				at par	+ APIC
$400 million				$1,536	$400 million

Tesla 2017 Statement of Stockholders' Equity

	Common Stock		Additional Paid-In Capital
	Shares	Amount	
Issuance of common stock in March 2017 public offering at $262.00 per share, net of issuance costs of $2,854	1,536	2	399,645

Additional paid in capital is about $400 million. Shows that Tesla expensed $3 million in issuance costs.

FlowChart of Shareholders' Equity



Treasury Stock

- Treasury Stock: stock that has been repurchased by the company

- Why do companies repurchase shares?
  - as way to return cash to shareholders (can be a tax-efficient alternative to dividends)
  - to meet requirements of some option plans that optioned shares must be repurchased
  - repurchases may increase earnings per share
  - because managers believe the stock is “undervalued”

- The accounting treatment of a stock repurchase is to reduce cash and to reduce Shareholders Equity. Thus, treasury stock is not an asset.

Treasury Stock: An Example from AT&T 2019

During 2019, AT&T repurchased approximately 67 million shares at a total price of about $2,417 million.

Assets	**=**		**Stockholders Equity**	
Cash	Par Value	APIC	RE	– Treasury Stock (XE)
(2,417)				2,417

Since treasury stock is a contra equity account, increasing treasury stock reduces stockholders' equity!

AT&T 2019 Cash Flow from Financing

Financing Activities	
Net change in short-term borrowings with original maturities of three months or less	**(276)**
Issuance of other short-term borrowings	**4,012**
Repayment of other short-term borrowings	**(6,904)**
Issuance of long-term debt	**17,039**
Repayment of long-term debt	**(27,592)**
Payment of vendor financing	**(3,050)**
Issuance of preferred stock	**1,164**
Purchase of treasury stock	**(2,417)**
Issuance of treasury stock	**631**
Issuance of preferred interests in subsidiary	**7,876**
Dividends paid	**(14,888)**
Other	**(678)**
Net Cash (Used in) Provided by Financing Activities	**(25,083)**

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366,193,458 shares in Treasury at 12/31/2019. Total costs of these shares is $13,085 million. Note these shares represents total repurchases minus re-issuances over time.

Treasury stock changes from AT&T's 2019 Statement of Changes in Stockholders' Equity

Treasury Stock			
Balance at beginning of year	(339)	$	(12,059)
Repurchase and acquisition of common stock	(67)		(2,492)
Issuance of treasury stock	40		1,466
Balance at end of year	(366)	$	(13,085)

Figure includes $2,417 million in repurchases and $75 million in other acquisitions of common stock.

Treasury Stock Reissue and Retirement

Treasury stock can leave the balance sheet in two ways:

1. It can be re-issued
2. It can be retired.

When treasury stock is reissued:

1. The treasury stock contra-equity account is reduced.
2. The difference between the price at reissue and the repurchase price is added to APIC.

When treasury stock is retired (not on exam):

1. The treasury stock contra-equity account is reduced.
2. Stockholders' equity is reduced through reductions in par value, APIC, and/or retained earnings

Accounting for Cash Dividends

Example: Suppose a firm has 1,000 shares outstanding and declares a $2 dividend per share.

Cash	=	Dividends Payable	+	APIC	+	RE (but not NI)
		2,000				(2,000)
(2,000)		(2,000)				

Note that dividends are paid some time after they are declared

AT&T 2019 Cash Flow from Financing

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Stock Splits

- Companies will occasionally “split” their shares. For example, in a 2 for 1 split, stockholders receive 2 shares for each share they own.
- The number of shares, par value and price per share will change.
- **Example**: SloanCo has 1,000 shares outstanding with $1 par value and a price of $120. What happens when the company executes a 2 for 1 Stock Split?
  1) Shares outstanding goes to 2,000 (2 x 1,000)
  2) Par value goes to $0.50 ($1 / 2)
  3) Price goes to $60 ($120 / 2)
- Why would investors and management view stock splits positively?
  - Create perception of “affordable” stock to increase demand from retail buyers.
  - May be signaling from management that it expects high future returns.
  - Poorly performing companies may do reverse splits to avoid becoming penny stocks.

Aurora Cannabis (NYSE: ACB): Reverse Splits (Yahoo.com April 16, 2020)

The Board of Directors has proposed that Aurora Cannabis complete a 1-for-12 reverse stock split. The company now lists 1,313,494,990 common shares outstanding leading to a post-split share count of 109,457,915 shares.

The key to the reverse split is the current share price of $0.71. Aurora Cannabis would trade above $8.50 post split.

NYSE stocks must maintain a minimum price of $1 per share.

If a listed stock closes or ends the trading day below $1 for 30 consecutive days, the NYSE typically suspends trading in the stock after the 30th day that it averages below $1 per share.

Starbucks Stock Splits

On April 9, 2015, after its sixth and most recent 2-for-1 stock split, Starbucks had 1,501.0 million shares outstanding.

How many shares outstanding did it have immediately before the split?

2-for-1 split → 1,501.0/2 = 750.5 million

If its price was $47.96 immediately after the split, what was price immediately before split?

2-for-1 split → $47.96*2 = $95.92

Starbucks Stock Splits – Importance

Starbucks went public on June 26, 1992. It closed trading that day at $21.50.

Starbucks' price on December 31, 2019 was $87.92. A naïve calculation of total return to an investor who bought at first-day close is:

87.92/21.50 – 1 = 308% (SP500 is up about 700% during this time)

What's wrong with this? It ignores that Starbucks stock has spit 2:1 a total of six times. That means that 1 share of stock at IPO has turned into 64 shares (2 × 2 × 2 × 2 × 2 × 2).

Adjusting for these spits, the $21.50 first day close is $21.50/64 = $0.34.

The correct calculation of total return to an investor who bought at first-day close is:

87.92/0.34 – 1 = 25,759% (Starbucks is a top-performer)

Starbucks Stock Splits – Importance

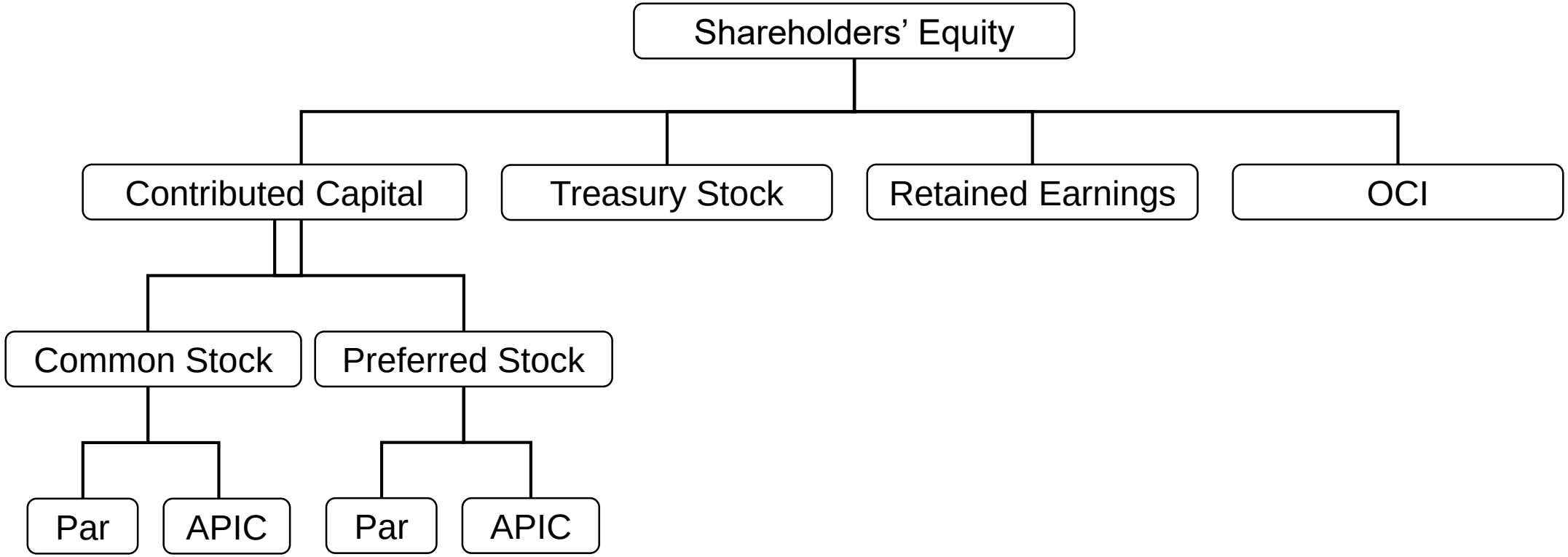
For research purposes, it is important to know how data providers account for splits.

Firms with high returns tend to split more. Failing to account for the splits understates return performance, as in prior example.

In most databases, such as CRSP, prices given are historical actual prices – CRSP shows Starbucks' June 26, 1992 closing price as $21.50 per share. But CRSP gives a 64 total split adjustment factor. If one understands the structure, it is easy to compute the split-adjusted price of $0.34.

Beware! Not all databases adjust in the same way. Failure to do adjustments correctly have caused famous academics to publish papers that are wrong.

FlowChart of Shareholders' Equity



Other types of equity

Stock used for employee compensation:

- Stock options
- Restricted stock

Preferred stock

Convertible debt and convertible preferred stock

Recall stock based compensation from cash flow class

Assets			=	**Liab**	**S/E**		
Cash	PPE	– AccDep	=		CC	+ R/E	

Use the BSE to account for paying an employee $1,000 in cash.

-1,000 -1,000 (wage expense)

Use the BSE to account for selling $1,000 in stock.

1,000 1,000 (stock issuance)

Use the BSE to account for paying an employee $1,000 in stock.

1,000 -1,000 (wage expense)

Paying stock in effect same as selling stock and paying in cash.

Effect of vesting on equity based compensation expense

Assets			**=**	**Liab**	**S/E**	
Cash	PPE	– AccDep	=		CC	+ R/E

Use the BSE to account for granting an employee $1,000 in equity (restricted stock and/or options) that vests over 3 years. If the employee leaves before vesting, they forfeit their equity.

Expense per year = $1,000/3 = $333

333	-333	(wage expense year 1)
333	-333	(wage expense year 2)
333	-333	(wage expense year 3)

If the company grants equity every year, equity-based compensation expense for a given year includes some expense for that year's grant as well as expenses for past year's grants. (Recall example of software amortization expense).

Tesla option activity for FYE 12/31/2017 (10-K footnote 15)

	Stock Options			
	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (Billions)
Balance, December 31, 2016	12,875,422	$ 96.50		
Granted	1,163,678	$ 310.13		
Exercised or released	(2,324,871)	$ 81.04		$ 0.54
Cancelled	(833,204)	$ 327.33		
Balance, December 31, 2017	10,881,025	$ 105.56	5.3	$ 2.30
Vested and expected to vest, December 31, 2017	10,881,025	$ 105.56	5.3	$ 2.30
Exercisable and vested, December 31, 2017	8,029,228	$ 77.56	4.7	$ 1.91

In 2017, Tesla granted 1,163,678 employee options at an average exercise price of $310.13. These options give employees the right to buy Tesla stock at $310.13 for the next 10 years.

Tesla option valuation FYE 12/31/2017 (10-K footnote 15) (not on exam)

Tesla reports in the footnote: “We estimate the fair value of each stock option award on the grant date generally using the Black-Scholes option pricing model and the weighted-average assumptions in the following table”:

Risk-free interest rate:		1.80	%
Expected term (in years):		5.10	
Expected volatility:		42	%
Dividend yield:		0.00	%
Grant date fair value per share:	$122.25		

Since each option is worth $122.25, the value of the 1,163,678 employee options granted is $142 million.

Effect of vesting provisions on stock based compensation

In 2017, Tesla granted $1.1 billion of stock and options to its employees.

If Tesla has a 3-year vesting period, the expense of the 2017 grant is:

$1.1 billion / 3 years = 0.367 billion per year.

If Tesla grants options with 3-year vesting each year, Tesla's stock-based compensation expense for 2017 will include some amounts for the 2017 grant as well as expenses for past grants.

CONTRIBUTED CAPITAL: PREFERRED STOCK

- General term for a class of stock
- Has liquidation preference over common stock in bankruptcy
- Has different rights than and/or preferences to Common Stock
- These preferences *may* include:
  - Dividends: a pre-specified dividend stated when shares are issued. Rights to annual dividends are typically first to preferred stock, then to common stock
  - Cumulative Dividends: unpaid dividends accumulate and must be paid before common stockholders can receive dividends
  - Convertible: can be converted to common shares at a pre-specified rate
- Venture capitalists often use convertible preferred to fund pre-IPO companies. Get dividend pre-IPO and convert to common at IPO.

“Hybrid” Securities

Contain aspects of liabilities and of equities

Examples: Convertible debt and convertible preferred stock

If convertible debt/preferred is converted, it becomes stock

If not, it is repaid like regular debt/preferred.

Why issue convertible debt / preferred?

By issuing convertible debt a company is:

- Getting a reduced interest rate on debt,
- By giving bondholders the option to buy equity.

Bull Market in Tech-Company Convertible Debt Rages On (WSJ 5/25/18)

- Publicly traded technology companies have been issuing bonds that convert into equity at a pace unseen since the height of the dot-com bubble.

- It isn’t hard to see why: The cost of the debt is at a record low even as interest rates more broadly rise. The average coupon for convertible debt issued this year is 2.5%, the lowest on record, according to Dealogic.

- Tech companies are paying just 1.0% on average.

Example: Convertible Debt

ABC company issues a $100 million convertible bond in 2015, which matures in 2020. The bond has a coupon of 2%. If ABC had issued straight debt (with no conversion feature), the effective interest rate would have been 5%.

By including the conversion feature, ABC is saving 3% (= 5% - 2%) in (cash) interest. The bondholders accept the lower interest rate because they value the conversion option.

When ABC issued these bonds, the stock price was $80 per share. The conversion price was set at $100, or 25% above the current price.

If converted, the bonds turn into an additional 1 million shares = $100 million / $100.

Example: Convertible Debt

At maturity, what will the holders of the debt do:

- If the stock price < $100?

  The 1 million shares are worth less than $100 million.
  The holders will choose to be paid the cash maturity value of $100 million.
  Debt in this case.

- If the stock price > $100?

  The 1 million shares are worth more than $100 million.
  The holders will convert and receive the 1 million shares.
  Equity in this case.

Accounting for Convertible Debt at maturity

Balance sheet equation at maturity (assumes converts are issued at par):

If the stock price < $100?

A =	**L +**	**SE**
Cash	Conv. Debt	CC
-100	-100	0

Cash goes down by $100 million. Shares outstanding is unaffected.

If the stock price > $100?

A =	**L +**	**SE**
Cash	Conv. Debt	CC
	-100	100

Cash unchanged. Contributed capital increases by $100 million; shares outstanding increases by 1 million.

Accounting for Convertible Debt at Issue (not on exam)

Two ways to account for convertible debt at issue:

1. Value liability and equity separately. First value bond like a discount bond (Note 2% convertible coupon < 5% market interest rate on straight debt). The difference between face amount and the discount bond is the conversion value. The conversion value is added to CC.
   - This is what is done in IFRS.
   - This is done in US in certain special cases as we will see in Tesla.

2. Single liability. Record face value just like debt that does not have a conversion feature.
   - This is what is usually done in US GAAP.
   - The FASB is considering a requirement that all convertible debt be recognized in the balance sheet as a single liability.

It will be clear from context how the company accounts for convertible debt.

Statement of Cash Flows

- How is the issuance of equity reflect in the Statement of Cash Flows?

- CFO
  - Add back stock compensation expense (non-cash) to net income

- CFF
  - proceeds from issuance of common stock
  - proceeds from option exercise
  - proceeds from issuance of debt
  - repurchase of stock
  - maturity of debt
  - repurchase of debt

Selections from Tesla 2017 Cash Flow Statement

	2017
Cash Flows from Operating Activities	
Net loss	$ (2,240,578)
Adjustments to reconcile net loss to net cash used in operating activities:	
Depreciation and amortization	1,636,003
Stock-based compensation	466,760
Amortization of debt discounts and issuance costs	91,037

Cash Flows from Financing Activities	
Proceeds from issuances of common stock in public offerings	400,175
Proceeds from issuances of convertible and other debt	7,138,055
Repayments of convertible and other debt	(3,995,484)
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Earnings per Share (EPS)

- Because investors care about price per share, they also care about Earnings Per Share (EPS). What is the economic rationale?
  - Price / EPS (the “P/E ratio”) is a shorthand valuation metric – how expensive is stock?
  - Can be motivated by discounted cash flow analysis (recall earnings = CFO + accruals)

- Earnings per share (basic):

  NI available to Common Shareholders / Average common shares outstanding

- Earnings per share (diluted):

  Adjusts basic EPS for options and convertible debt and preferred

  Gets at the intuition that earnings are shared between stock, options, and converts

  Same as basic EPS if diluted EPS > Basic EPS (e.g., if income is negative)

- EPS and diluted EPS appear at the bottom of the income statement (see next slide)

Twitter Inc. 2018 Income Statement

	Year Ended December 31,		
	2018	2017	2016
Revenue	$ 3,042,359	$ 2,443,299	$ 2,529,619
Costs and expenses			
Cost of revenue	964,997	861,242	932,240
Research and development	553,858	542,010	713,482
Sales and marketing	771,361	717,419	957,829
General and administrative	298,818	283,888	293,276
Total costs and expenses	2,589,034	2,404,559	2,896,827
Income (loss) from operations	453,325	38,740	(367,208)
Interest expense	(132,606)	(105,237)	(99,968)
Interest income	111,221	44,383	24,277
Other income (expense), net	(8,396)	(73,304)	2,065
Income (loss) before income taxes	423,544	(95,418)	(440,834)
Provision (benefit) for income taxes	(782,052)	12,645	16,039
Net income (loss)	$ 1,205,596	$ (108,063)	$ (456,873)
Net income (loss) per share attributable to common stockholders:			
Basic	$ 1.60	$ (0.15)	$ (0.65)
Diluted	$ 1.56	$ (0.15)	$ (0.65)

Earnings per share (EPS) computations

Earnings per share computations:

- Basic
- Diluted

$$\text{Basic EPS} = \frac{\text{NI available to Common Shareholders}}{\text{Weighted average number of shares outstanding}}$$

NI available to Common Shareholders=

NI – NI attributable to noncontrolling interests - Preferred Dividends

Example of computing average shares outstanding

Facts:		Shares Outstanding
1. Jan 1	Beg balance	180,000
2. April 1	Repurchase	30,000
		150,000
3. July 1	3 for 1 stock split	300,000
		450,000
4. Sept. 1	Issued 50,000 shares	50,000
	Ending Balance	500,000

Example of computing average shares outstanding

		Adjusted Shares Outstanding*
1. Jan 1	Beg balance	540,000 = 180,000 X 3
2. April 1	Repurchase	90,000 = 30,000 X 3
		450,000 = 150,000 X 3
3. July 1	3 for 1 stock split	450,000
4. Sept. 1	Issued 50,000 shares	50,000
	Ending Balance	500,000

* Adjusted for 3 for 1 stock split

Example of computing average shares outstanding

Average shares outstanding?

Dates	Adjusted Shares Outstanding	Fraction of year	Weighted
Jan 1 – Mar 31	540,000	3/12	135,000
April 1 – June 30	450,000	3/12	112,500
July 1 – Aug 31	450,000	2/12	75,000
Sept. 1 – Dec 31	500,000	4/12	166,667
			489,167

Basic EPS computation

Suppose in addition:
Net income = $1,200,000
Preferred dividends = $200,000

Numerator:	NI – Preferred Div = 1,200,000 – 200,000 = 1,000,000
Denominator:	Weighted aver no. of shares = 489,167 (calculated earlier)
EPS =	$1,000,000 / 489,167 = $2.04

Diluted EPS

Diluted EPS =

$$\frac{\text{(NI available to Common Shareholders + Add-backs)}}{\text{Weighted average (number of shares outstanding + diluted shares)}}$$

NI available to Common Shareholders =
NI – NI attributable to noncontrolling interests - Preferred Dividends

Add-backs =
convertible preferred dividends + after-tax convertible debt interest

Diluted shares =
shares of stock options and convertible securities assumed to convert

Diluted EPS Calculation -- Convertibles Outstanding

Suppose in addition to above:

The $200,000 preferred dividend is from a convertible preferred stock.

The convertible can be converted into 150,000 shares of stock.

Diluted shares from convertibles are computed using the “if converted” method. Basically:

- Convertible is assumed to be converted at beginning of year;
- Add back convertible preferred dividends and/or after-tax convertible debt interest

Average number of diluted shares outstanding = 489,167 + 150,000 = 639,167

Diluted EPS: $1.88 = $\frac{(\$1{,}000{,}000 + 200{,}000)}{639{,}167}$

Diluted EPS Calculation -- Options Outstanding

Suppose instead of the convert, we have options outstanding:

Average number of shares outstanding related to options	25,000
Exercise price per share	$20
Average market price per share	$50

Diluted shares from options are computed using the treasury stock method. Basically assumes:

If option is in money (stock price is greater than exercise price):

- Option is exercised
- Proceeds from exercise are used to repurchase stock
- Diluted shares = Options – deemed repurchases

Computing Diluted EPS

Use treasury stock method to determine shares that could be repurchased with proceeds:

If exercised: 25,000 shares X $20 = $500,000 proceeds

$500,000 proceeds / $50 per share = 10,000 shares

Company could repurchase 10,000 shares

Excess issued over repurchase → net effect on shares outstanding

(25,000 – 10,000) = 15,000 shares

Average number of diluted shares outstanding = 489,167 + 15,000 = 504,167

Diluted EPS: $1.98 ($1,000,000/504,167)

Twitter Inc. 2018 Earnings per Share (EPS)

	Year Ended December 31,		
	2018	2017	2016
Basic net income (loss) per share:			
Numerator			
Net income (loss)	$ 1,205,596	$ (108,063)	$ (456,873)
Denominator			
Weighted-average common shares outstanding	756,916	736,607	708,010
Weighted-average restricted stock subject to repurchase	(2,590)	(3,905)	(5,875)
Weighted-average shares used to compute basic net income (loss) per share	754,326	732,702	702,135
Basic net income (loss) per share attributable to common stockholders	$ 1.60	$ (0.15)	$ (0.65)
Diluted net income (loss) per share:			
Numerator			
Net income (loss)	$ 1,205,596	$ (108,063)	$ (456,873)
Denominator			
Number of shares used in basic computation	754,326	732,702	702,135
Weighted-average effect of dilutive securities:			
RSUs	13,285	—	—
Stock options	2,686	—	—
Other	2,389	—	—
Weighted-average shares used to compute diluted net income (loss) per share	772,686	732,702	702,135
Diluted net income (loss) per share attributable to common stockholders	$ 1.56	$ (0.15)	$ (0.65)

Take-away Slide

- Transactions that affect (or can affect) stockholders equity:
  - Stock issuance
  - Repurchases
  - Stock splits
  - Dividends
  - Stock compensation
  - Instruments convertible to stock (convertible debt and preferred)

- These transactions are affected by prevailing economic realities and market circumstances

- Use the financial statements to infer corporate finance activities