Intro to Credit and Bankruptcy

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Brain Teaser

A **standard deck of cards** is shuffled and then **flipped over one-by-one**. At some point, **1 Ace** and **2 Kings** are revealed.

What is the **probability** that **all** the **Aces** are **revealed before all** the **Kings**?

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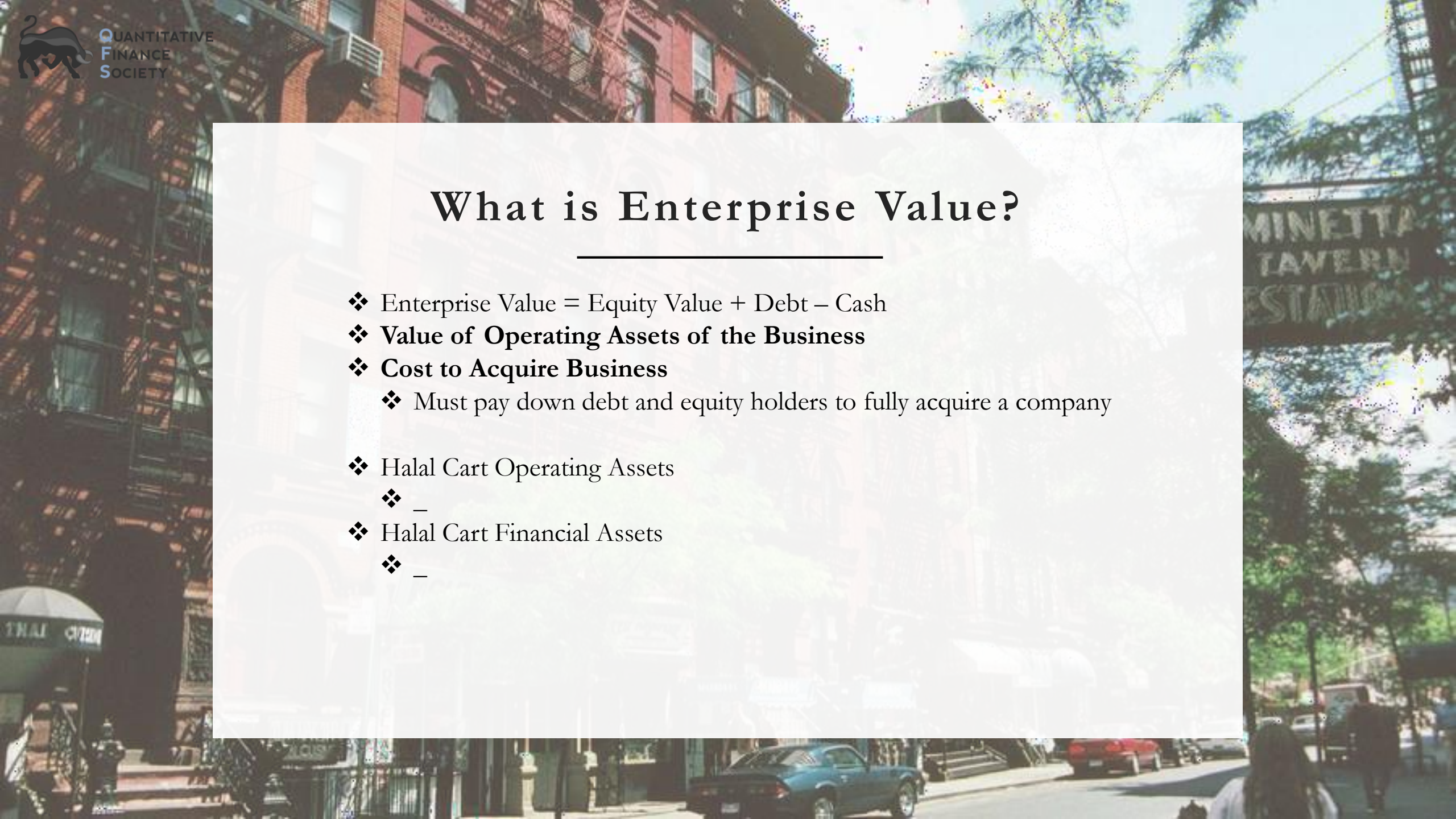
Solution: Brain Teaser

There is a **40% probability** that all the **Aces** are **revealed before all the Kings**

Possible (Compliant) Combinations:
{KAAA, AKAA, AAKA, AAAK} or **4 Combinations**

Total Possible Combinations:
5 C 3 = **10 Combinations**

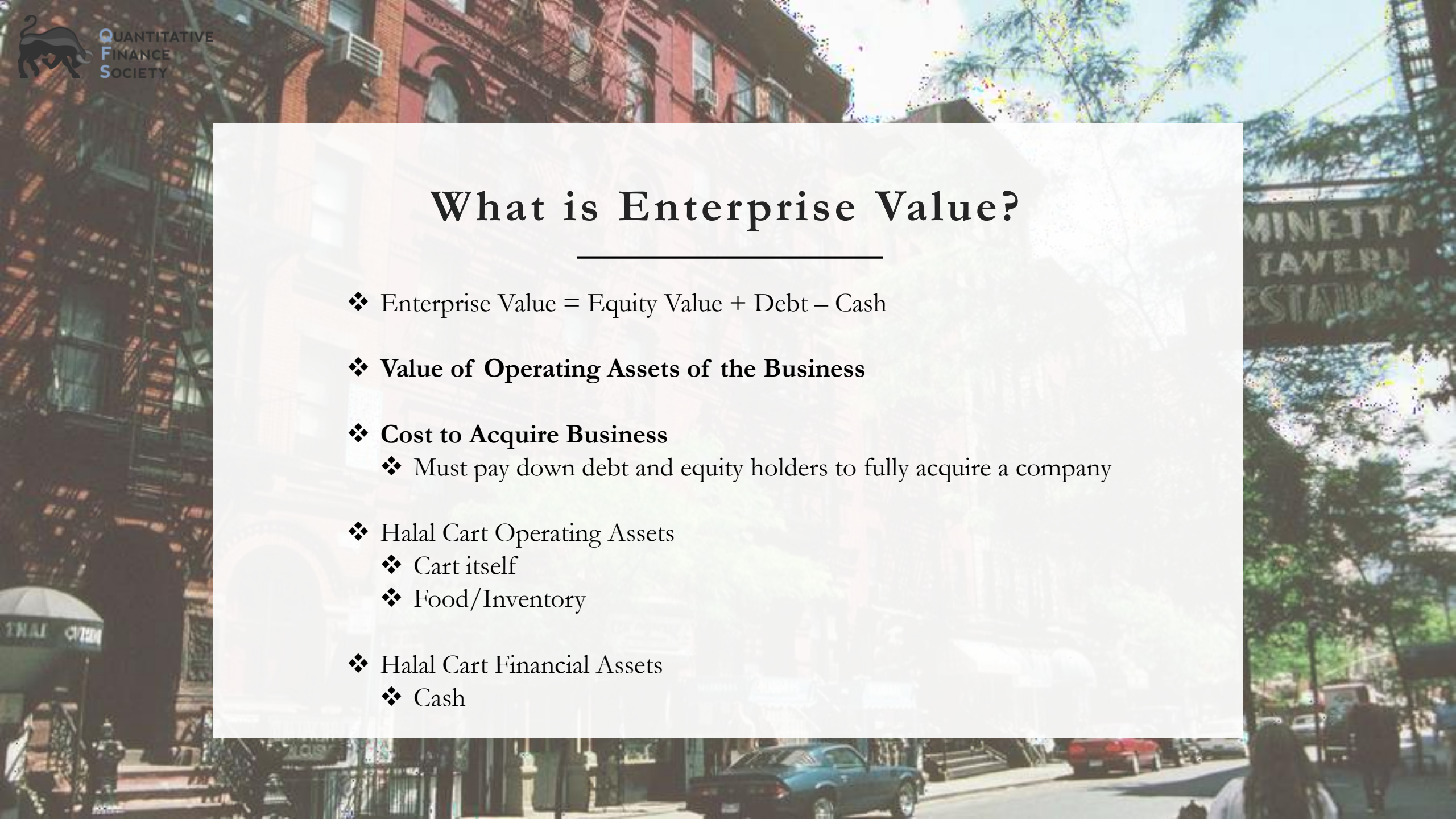
Therefore, the **probability is 40%**



What is Enterprise Value?

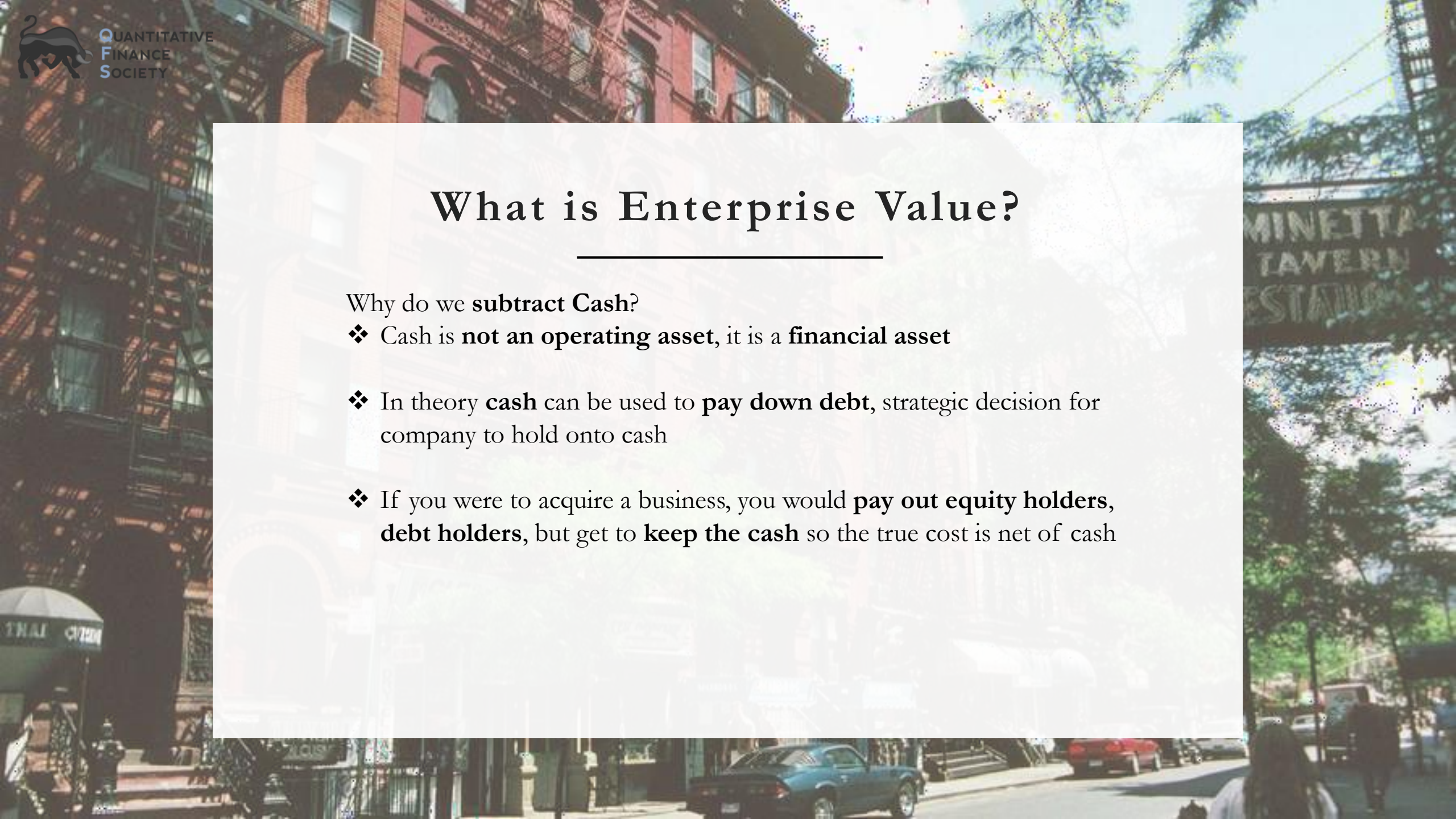
- Enterprise Value = Equity Value + Debt – Cash
- **Value of Operating Assets of the Business**
- **Cost to Acquire Business**
  - Must pay down debt and equity holders to fully acquire a company

- Halal Cart Operating Assets
  - _
- Halal Cart Financial Assets
  - _



What is Enterprise Value?

- Enterprise Value = Equity Value + Debt – Cash
- **Value of Operating Assets of the Business**
- **Cost to Acquire Business**
  - Must pay down debt and equity holders to fully acquire a company
- Halal Cart Operating Assets
  - Cart itself
  - Food/Inventory
- Halal Cart Financial Assets
  - Cash



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What is Enterprise Value?

Why do we **subtract Cash**?

- Cash is **not an operating asset**, it is a **financial asset**
- In theory **cash** can be used to **pay down debt**, strategic decision for company to hold onto cash
- If you were to acquire a business, you would **pay out equity holders**, **debt holders**, but get to **keep the cash** so the true cost is net of cash

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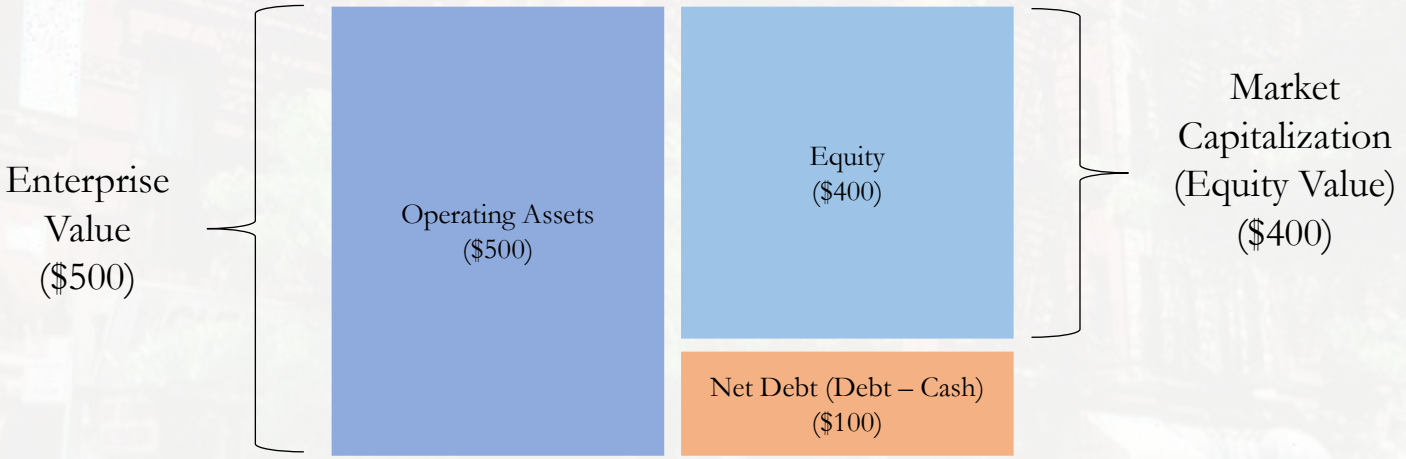
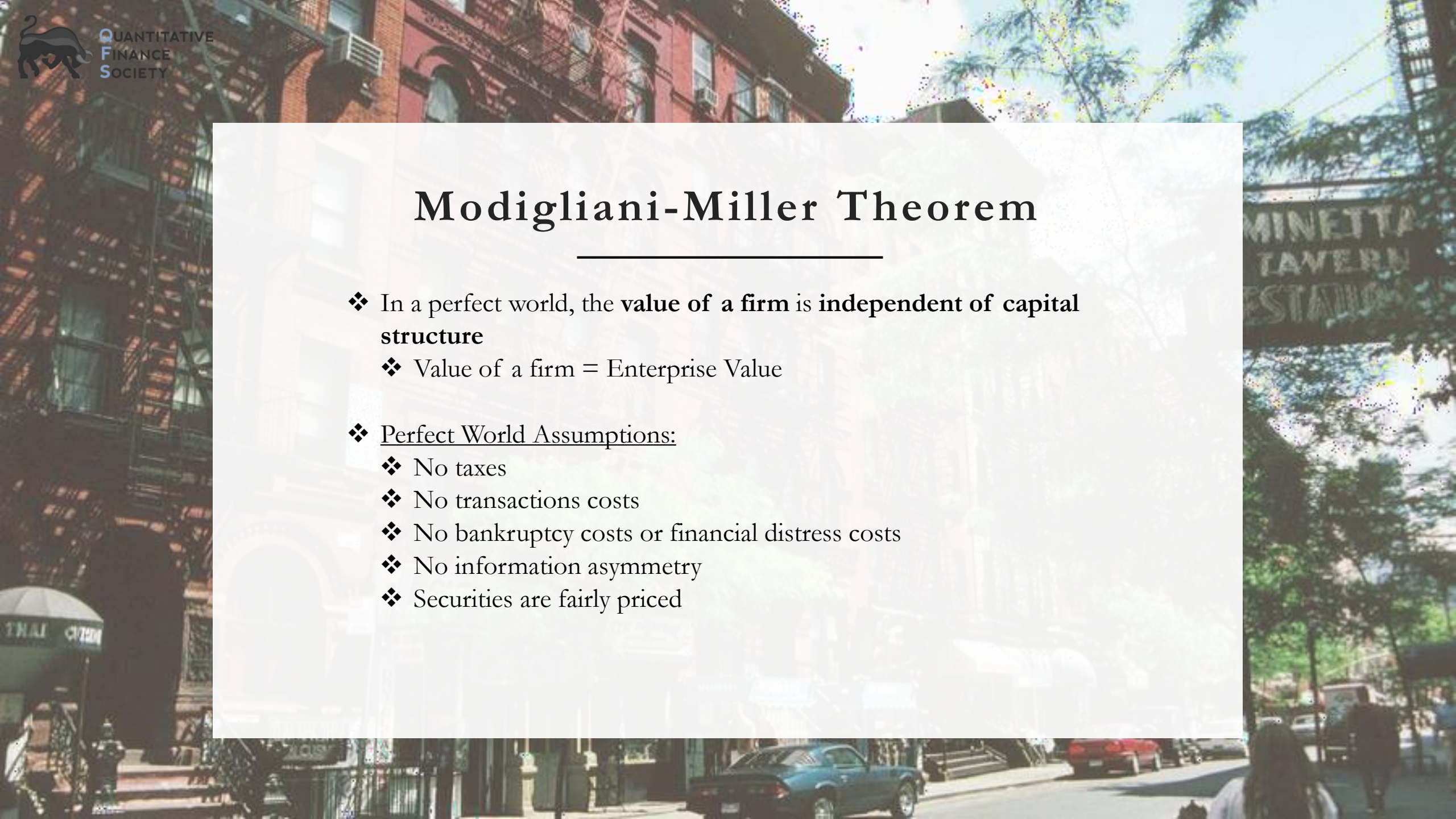
What is Capital Structure?

How does a firm funds its operations/growth

- Can be either **debt** or **equity**

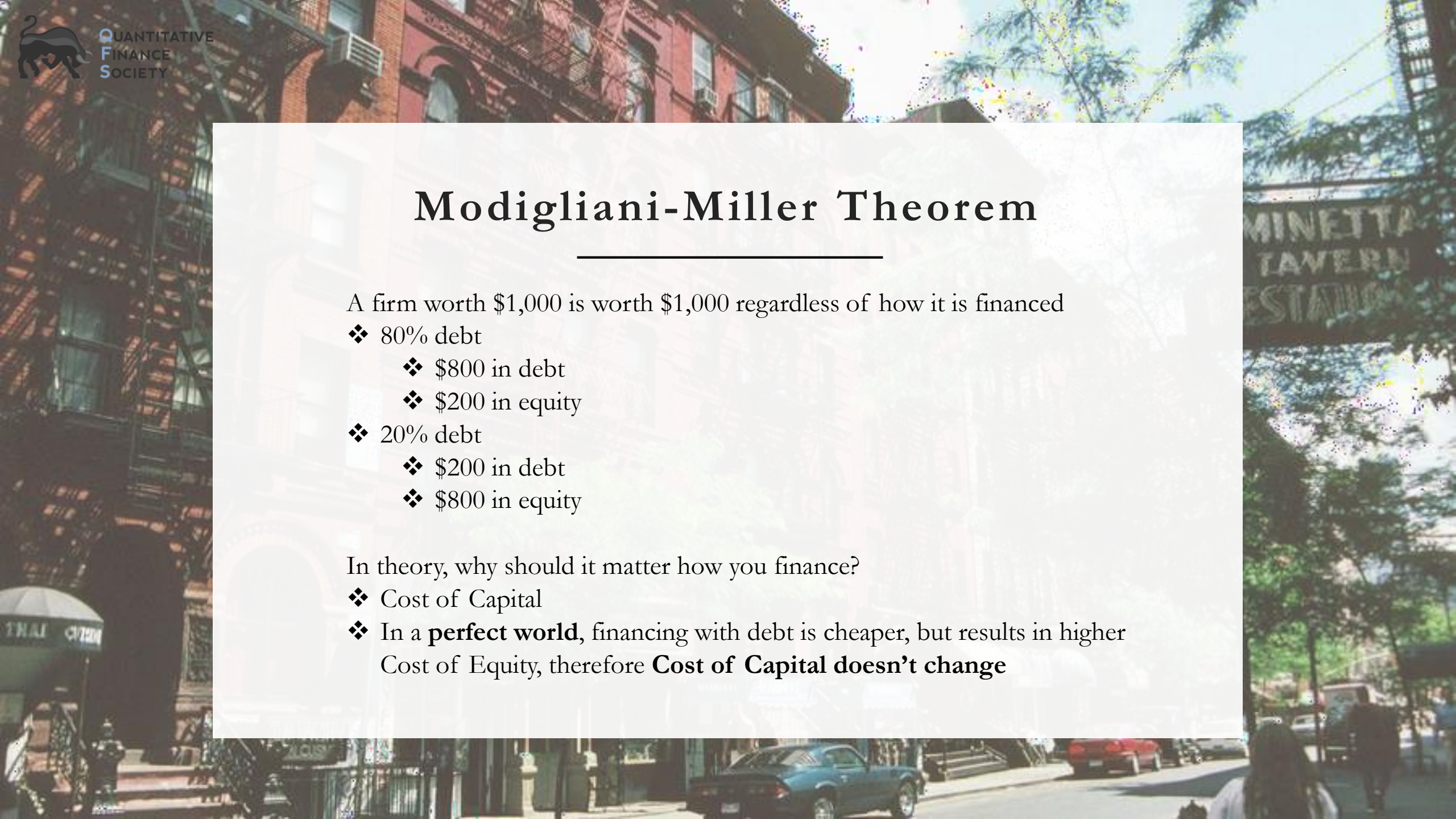




Modigliani-Miller Theorem

- In a perfect world, the **value of a firm** is **independent of capital structure**
  - Value of a firm = Enterprise Value

- <u>Perfect World Assumptions:</u>
  - No taxes
  - No transactions costs
  - No bankruptcy costs or financial distress costs
  - No information asymmetry
  - Securities are fairly priced



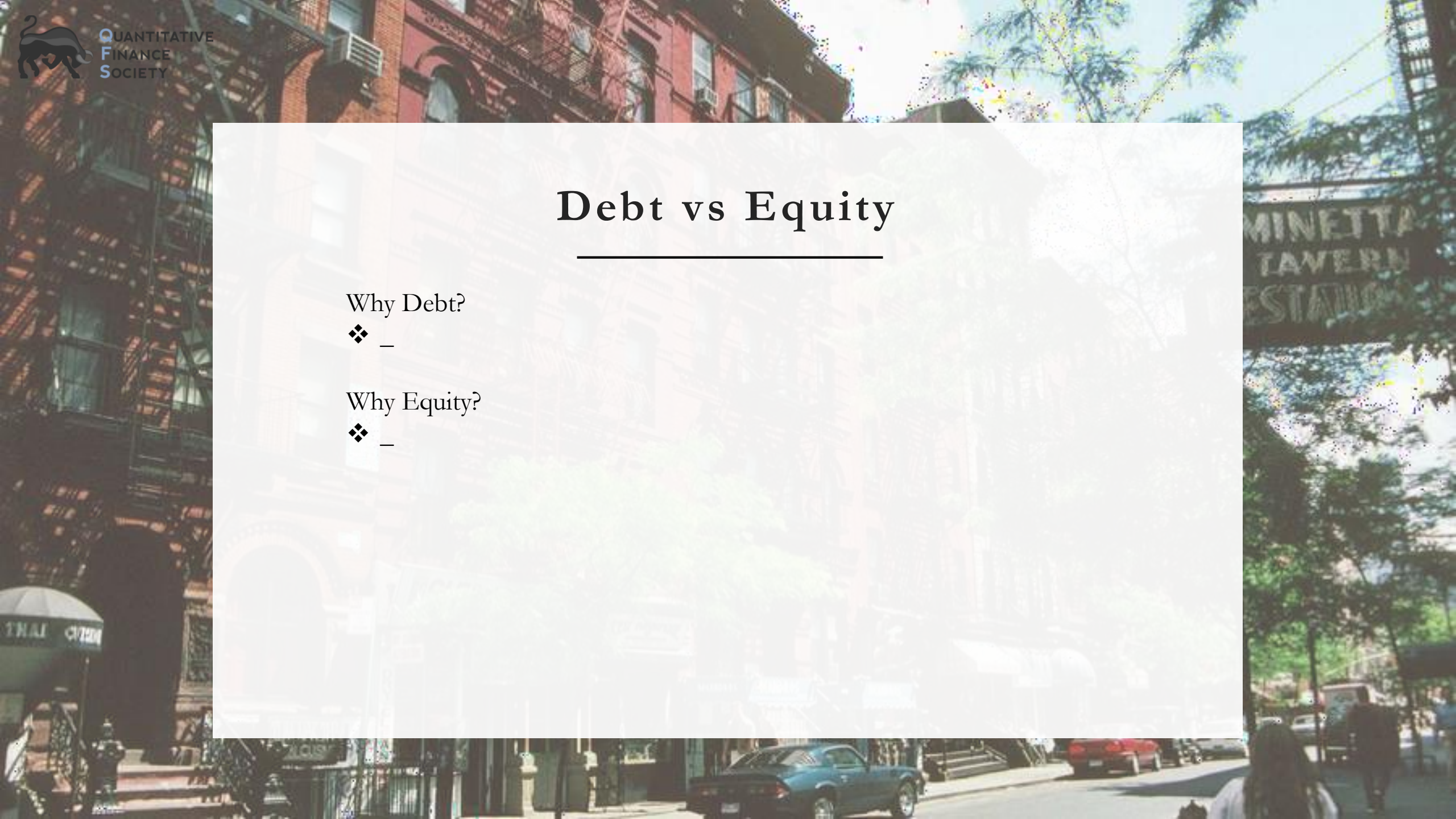
Modigliani-Miller Theorem

A firm worth $1,000 is worth $1,000 regardless of how it is financed

- 80% debt
  - $800 in debt
  - $200 in equity
- 20% debt
  - $200 in debt
  - $800 in equity

In theory, why should it matter how you finance?

- Cost of Capital
- In a **perfect world**, financing with debt is cheaper, but results in higher Cost of Equity, therefore **Cost of Capital doesn't change**



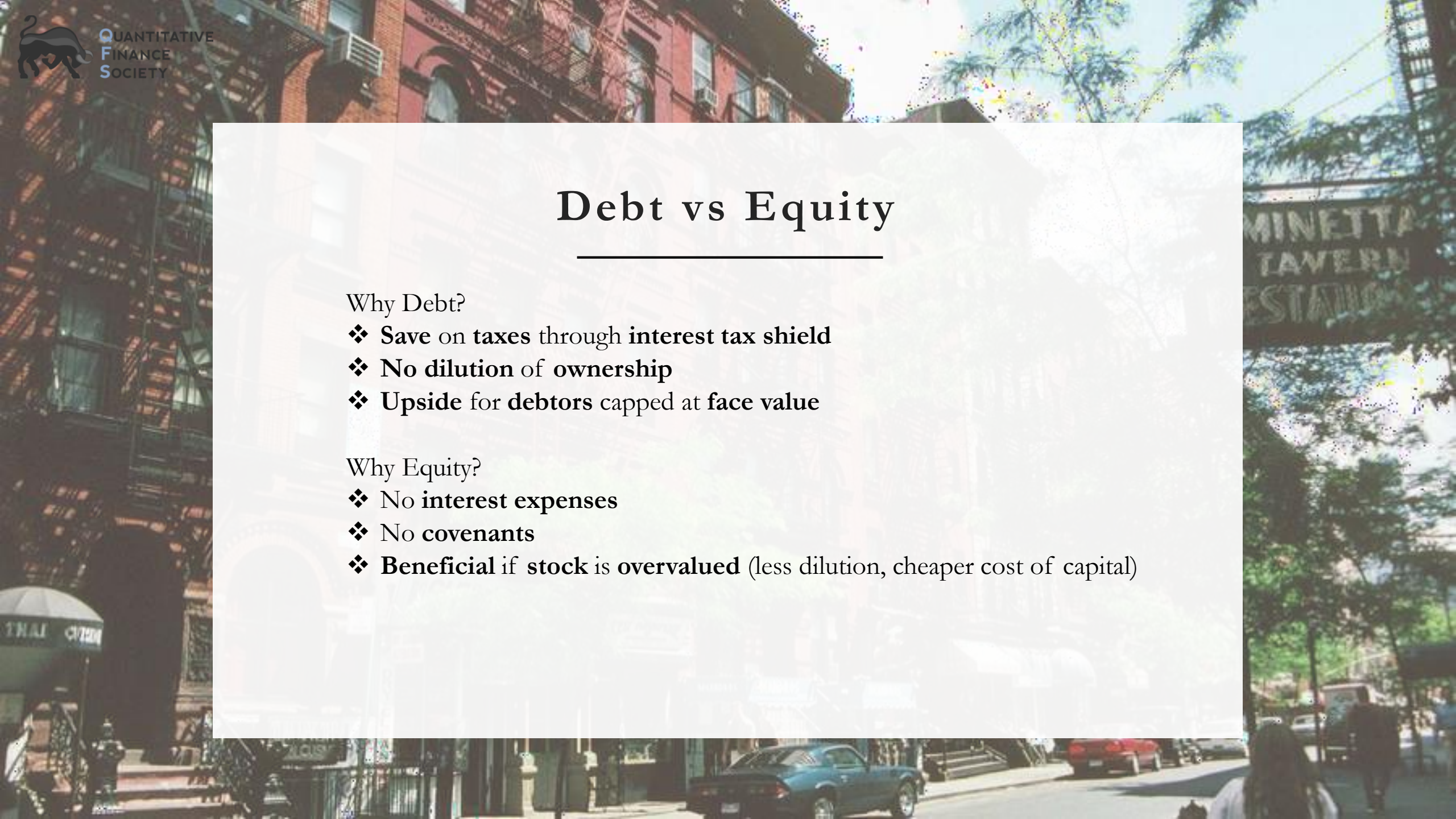
Debt vs Equity

Why Debt?

- _

Why Equity?

- _



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Debt vs Equity

Why Debt?

- **Save** on **taxes** through **interest tax shield**
- **No dilution** of **ownership**
- **Upside** for **debtors** capped at **face value**

Why Equity?

- No **interest expenses**
- No **covenants**
- **Beneficial** if **stock** is **overvalued** (less dilution, cheaper cost of capital)

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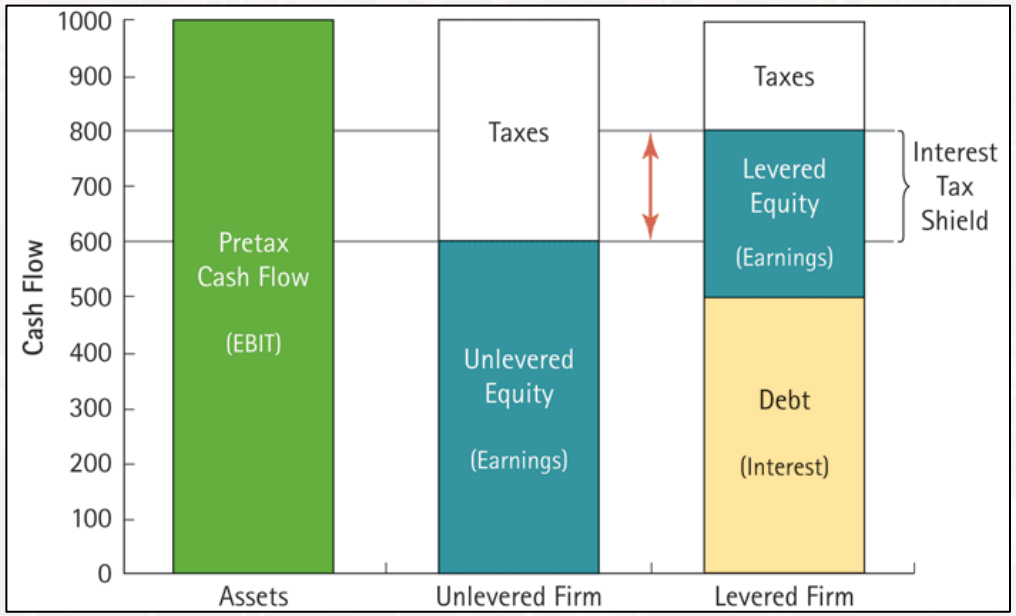
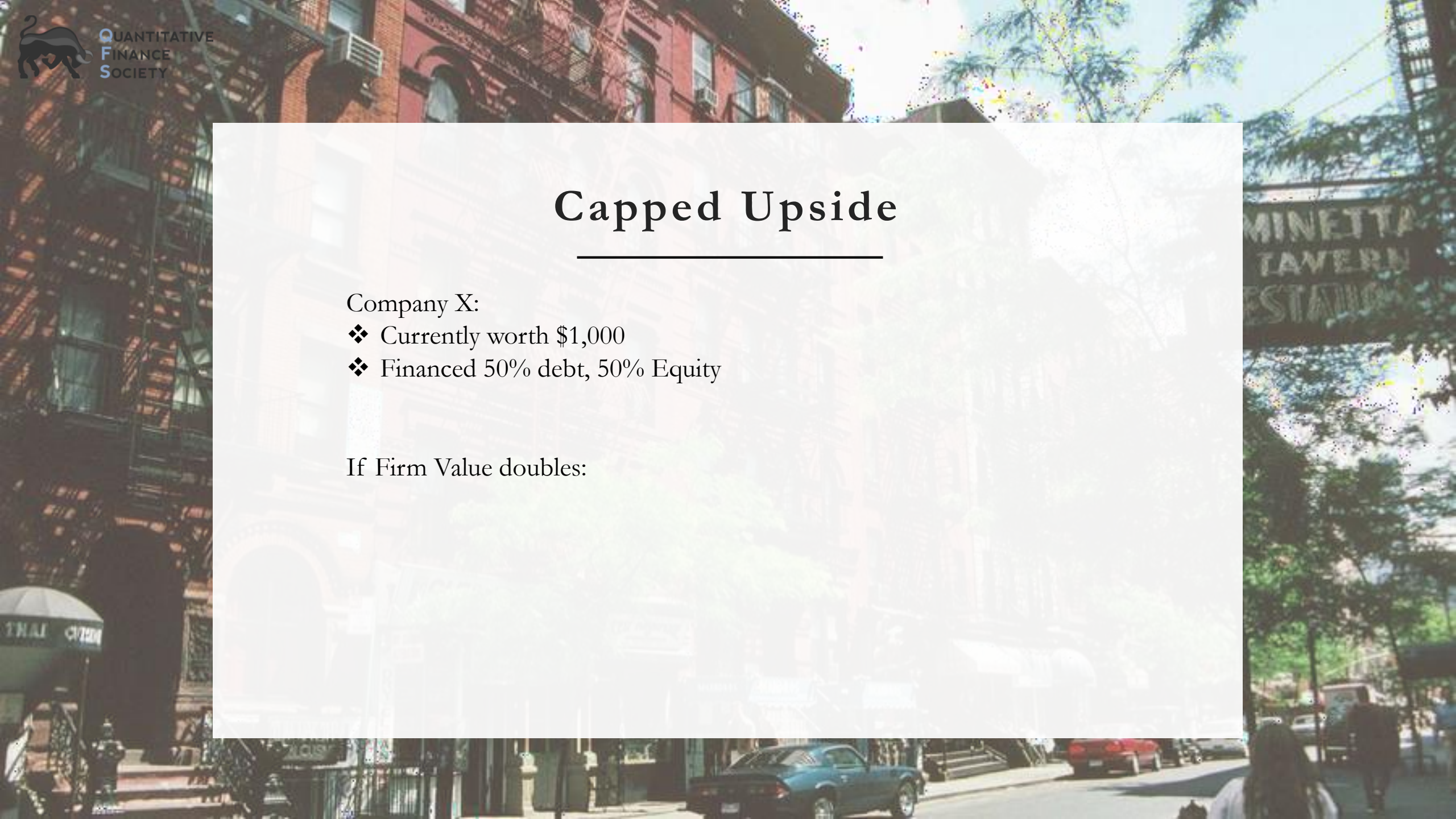
Tax-Shield

- **Tax shield** on interest **creates value**
- Debt gets paid pre-tax, the more debt, the less the tax you pay, higher EV



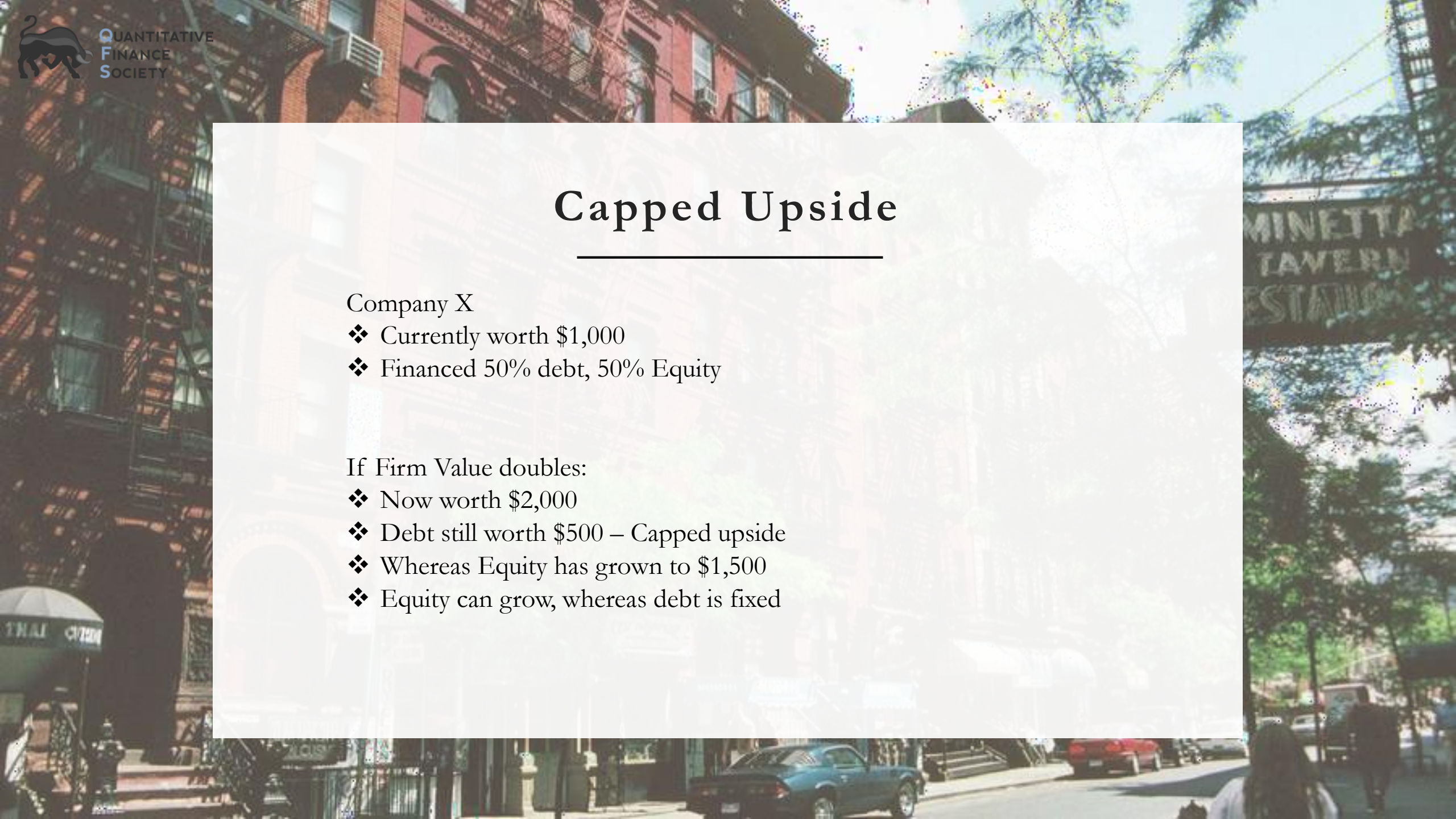


Capped Upside

Company X:

- Currently worth $1,000
- Financed 50% debt, 50% Equity

If Firm Value doubles:



Capped Upside

Company X

- Currently worth $1,000
- Financed 50% debt, 50% Equity

If Firm Value doubles:

- Now worth $2,000
- Debt still worth $500 – Capped upside
- Whereas Equity has grown to $1,500
- Equity can grow, whereas debt is fixed

Debt

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Secured vs. Unsecured Debt

- **Debt** with a **collateral interest** is called **secured**

Secured	Unsecured
Backed by collateral	No collateral
Based on quality of collateral and creditworthiness	Based only on creditworthiness of borrower
Often floating rate (SOFR + spread)	Often fixed rate
Mandatory Amortization	Can be bullet payment or paid in kind
Lower interest rate	Higher interest rate
Often banks are lenders	

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Covenants

What are covenants?

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Covenants

What are covenants?

- **Promises** agreed to by the borrower
- If they **do not abide**, lender can place **borrower** in **default**
- Meant to **protect lender**
- In theory, the **more covenants**, the **lower** the **interest rate** because the lender has less risk

- Maintenance vs. Incurrence

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Maintenance Covenants

- **Tested regularly** and **borrower** must be **in compliance**
- Examples:
  - Debt/EBITDA ratio below certain number
  - Interest Coverage ratio higher than certain number
- If they are **not in compliance** can be **placed in technical default**

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Incurrence Covenants

- **Only comes into effect** if the **borrower** is **trying** to do a **specific action**

- Ex: If the borrower wants to take on new debt, Debt/EBITDA must be below 5.0x after taking on the new debt
  - This does not mean they cannot have a Debt/EBITDA ratio of 6.0x, just must be below 5.0x after taking on new debt

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Covenant Breach/Distress

- **Borrower** is placed in **technical default**
  - Depending on credit docs, lender can accelerate if there is a provision allowing this
  - In general, lenders will look to work with borrower to cure technical default as acceleration is rarely the best method
  - All about preserving their return
- **Rating Downgrade**
- **Equity** trades **close to 0**, **debt** trading at **discount**
- Poor Financials (Cash Flow, AP, Margins, Revenue etc.)

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Why Companies go into Distress

Potential Causes:

- Unrealistic Business Plan – LBO
- Economic Downturn – COVID
- Mismanagement - Overspending etc
- Secular Change in Industry – Amazon with Brick and Mortar
- Short-Term Liquidity Concerns – Tort Claims, Covenant Breach, Leases

Above results in inability to meet obligations

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Signs of Distress

- Stretching Accounts Payable
- Deferring Capex
- Declining EBITDA/Margins leading to large Debt/EBITDA
- Deteriorating Margins
- Debt trading at a discount
- Equity Value trading at Option Value

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Option Value

- Why Equity of a bankrupt/distress company rarely trades at 0
- Can be applied to debt as well where a clearly out-of-the-money unsecured bond **could be trading above 0**
- The **equity** (or unsecured bond) is effectively an **option** on the value of the firm increasing, and the **strike price** is the **price** you **pay for the equity**

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Cost of Distress/Debt Overhang

- Higher interest rates on future debt
- Forced selling of assets
- Indirect Costs – Reducing CapEx on valuable projects

Conflicts of Interest:

- **Creditors/Lenders** want **company** to **preserve value** since they are higher in the capital structure
- **Equity Holders** want company to take on **risky projects**, so their "option" pays out

Debt Overhang:

- **Existing debt** will prevent financing for Positive NPV projects because **value accrues to senior debt holders**

Debt Overhang Example

- **No equity or sub-debt holder** would **fund** a **positive NPV** project here because current value is 290, and future value creation up to 210 (500 – 290) flows directly to senior debt holders

MARKET

AV = 290	Sr Debt = 250
	Sub Debt = 40

	Amount	Price	Value
Senior Debt	500	50%	250
Sub Debt	200	20%	40
Total			290

AV = 290	Sr Debt = 500
Neg Equity = 410	Sub Debt = 200

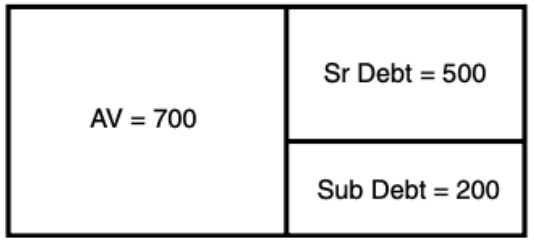
Assets	290	Liabilities	700
Net Equity	410	Equity	0
Total	700		700

Figure 3-7. Boxco in Financial Distress

Solving Distress

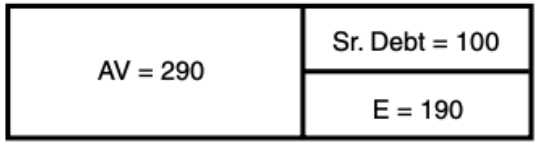
- Increase Asset Value – Strategic and Operational Changes
- Resize Capital Structure – OOC Restructuring, Bankruptcy

Increase Asset Value



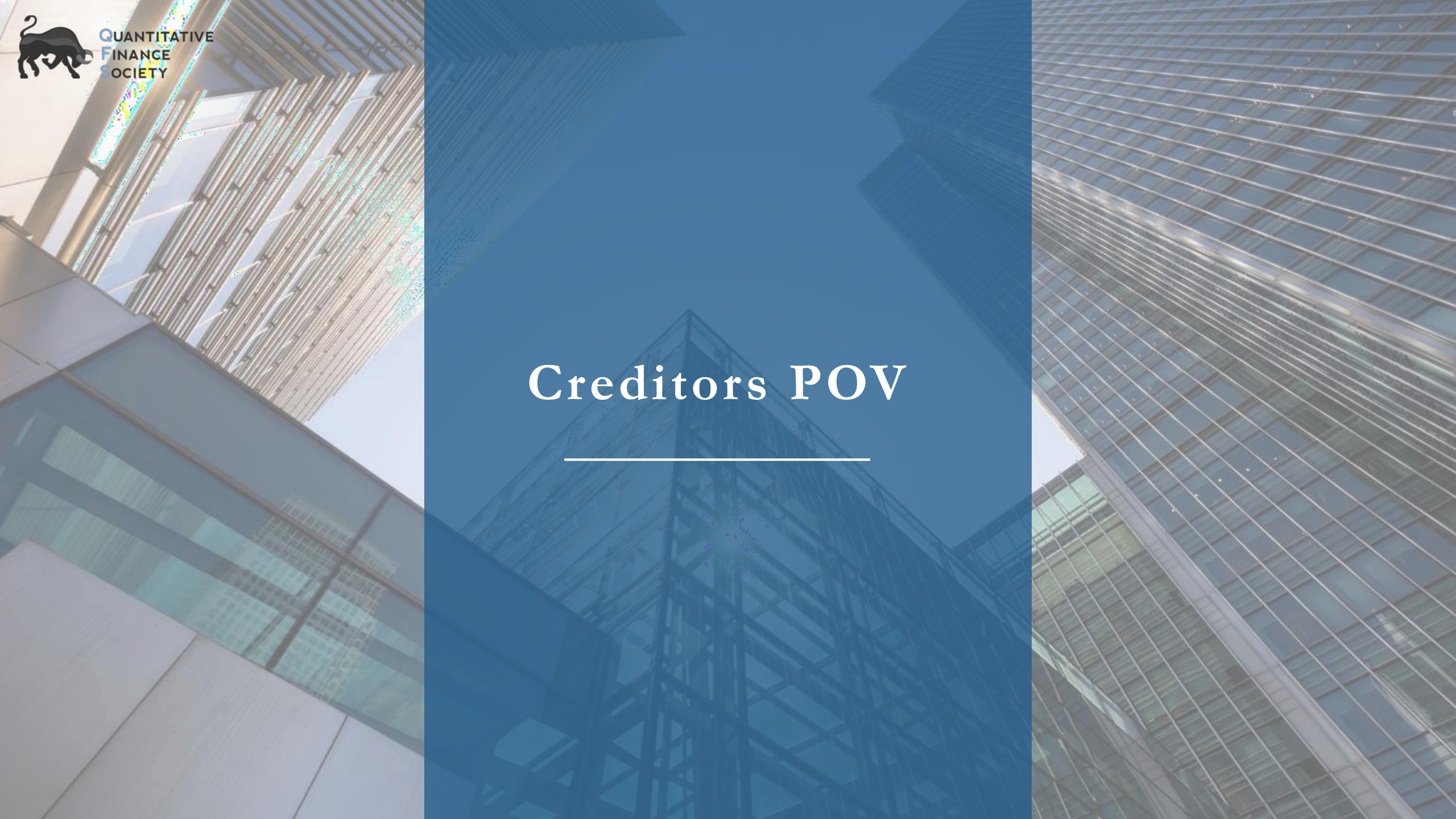
Cash	200	Senior Debt	500
Other Assets	500	Sub Debt	200
Total	700	Equity	0
			700

Resize Capital Structure



Cash	200	Senior Debt	100
Tangible Assets	90	Sub Debt	0
Total	290	Equity	190
			290

Figure 3-8. Resolution Options for Boxco's Financial Distress



Creditors POV

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Bankruptcy – Chapter 11 and 7

- **Legal process** to **help debtor/borrower** when they are in **distress** and **cannot cover their liabilities**
- Provides **debtor** with some **protections**
- Out of Court Restructuring is another option, as it is cheaper and has no indirect costs, but the debtor does not get Chapter 11 protections

- **Debtor creates a plan** for their future
- This plan will include a firm valuation and how each creditor is treated
  - **Senior creditors** prefer **low firm valuation**
  - **Junior creditors** prefer higher firm valuation

- **Chapter 7 – Liquidation**, when the firm cannot operate as a going concern in the future

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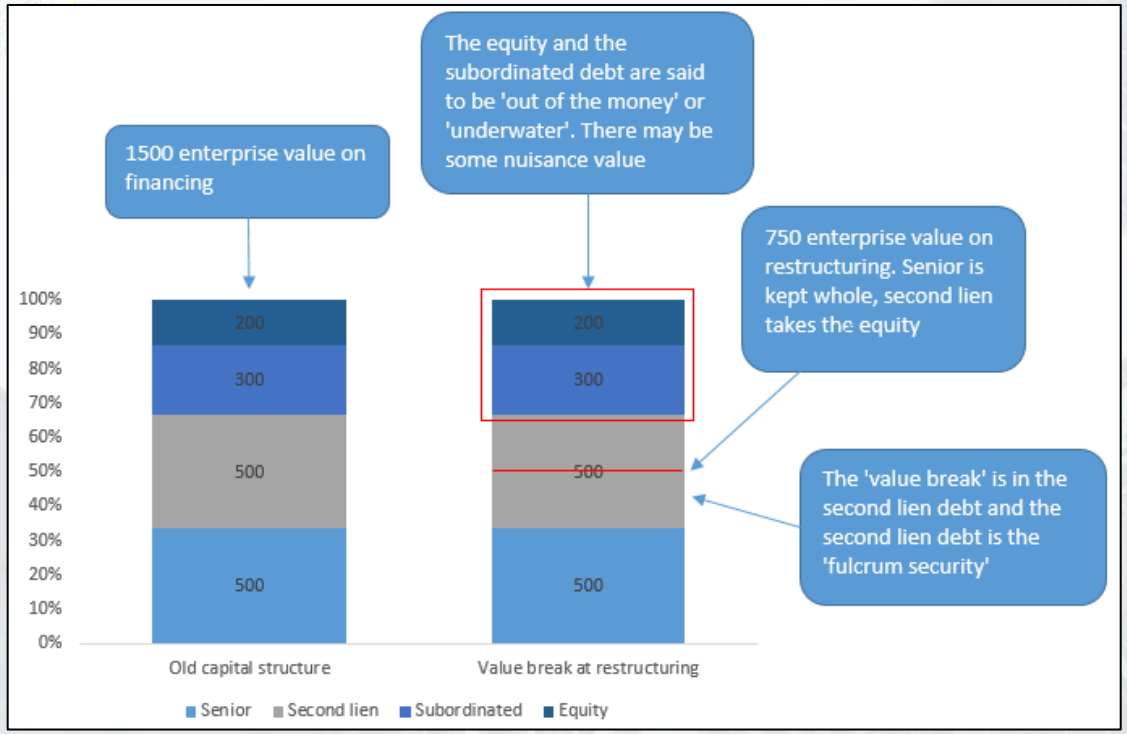
Waterfall and Fulcrum Security



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Creation Value

	Book value	Market price	Market value
Senior	500	95%	475
Second lien	500	45%	225
Subordinated	300	10%	30
Total debt	**1300**		**730**
EBITDA	100		100
Creation multiples	13.0 x		7.3 x

'Creation value' is the implied enterprise value that you are paying for the company based on the price at which the debt is trading. The assumption is that the equity is worth zero

By purchasing the debt in the secondary market you are 'creating the company' at a 7.3x EBITDA multiple

Lender Considerations

- Because **upside** is capped in **credit at yield/coupon** (unless buying at significant discount with NT maturity), downside protection is everything

Factors of Risk:

- Priority
- Time
- Leverage

Considerations:

- Ability to pay interest – FCF Generation
- Ability to refinance/repay at maturity – Terminal Value of business
- Collateral Coverage if secured

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Investing in Debt

- When **investing in debt** need to factor all of this in
- Your **perceived risk drives** the **interest rate/coupon** on the debt
- In 2021 and 2022 when rates were low, companies were able to secure debt funding extremely easy
- The majority of the time, there is a **certain point** where a company is **deemed too risky** to be **given financing no matter the interest rate**
  - Interest rate may take up all of their FCF generation at a certain point meaning they can't operate profitably

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Links

Mailing List Link

Coffee Chat Link

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Get in Touch

Feel free to reach out to us over Facebook or email if you have any questions

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