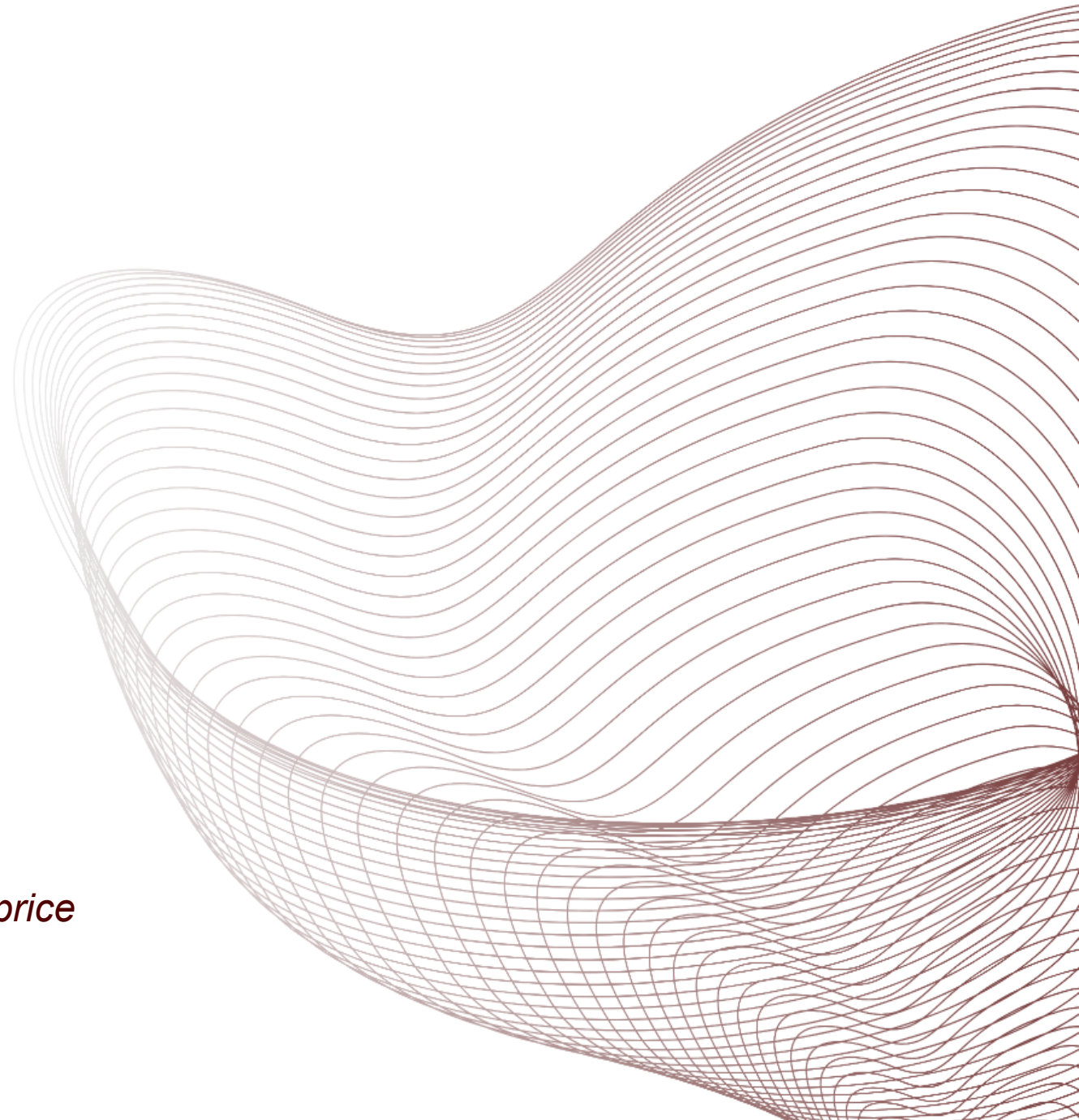


Valuation Pt 1.

October 30, 2023

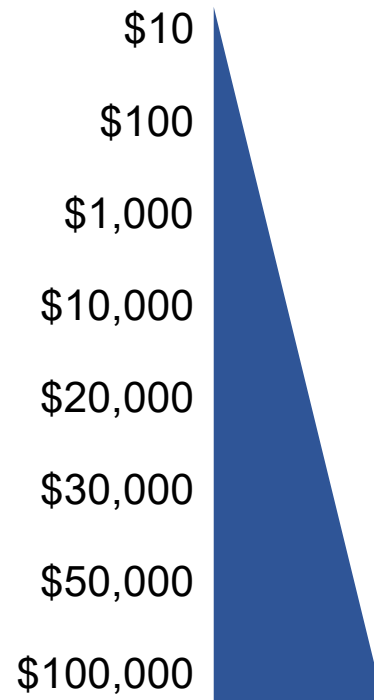
Talk to your neighbor: What is the difference between price and value?



How much would you be willing to pay?

Everyone start by raising your hand. Put your hand down when you would be no longer willing to pay for the car at the given price.

Assume you can not arbitrage the car, i.e., you can not go and sell it for a higher price on the market. Only say what you are willing to pay, assuming you could not sell it or lease it out later at any price.



Things to consider

- What does a car allow you to do?
 - Allows you to get from point A to point B. Go to class, restaurants, parties, home, etc.
- Where do you live? How far away from campus? Do you live on campus?
- Do you already own a car?
- Do you have a significant other who has a car?
- Do you have a bike?
- How far do you live from the nearest bus stop?
- Do you have a lot of online classes?
- Do you have an in-person job that requires transportation?

For many things, value is subjective. Different people are willing to pay different amounts for things based on how much “utility” it brings them.

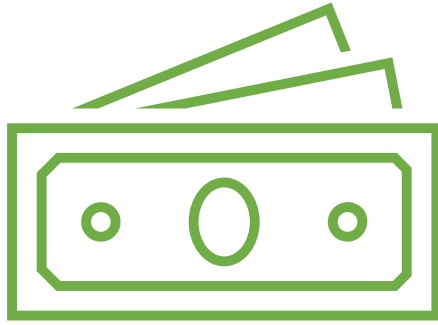
What is “value”?

Value is what something is worth to you. How much satisfaction/benefit/happiness does something give you?

Under utility theory, utility is used to measure how much “value” people derive from certain goods or services.

People are willing to pay different amounts for different things, as demonstrated in the car example. This is because **individuals** have **preferences** about what they want, that **differ from other peoples' preferences**.

What is a measure of value that is not subjective?



Money! (Cash)

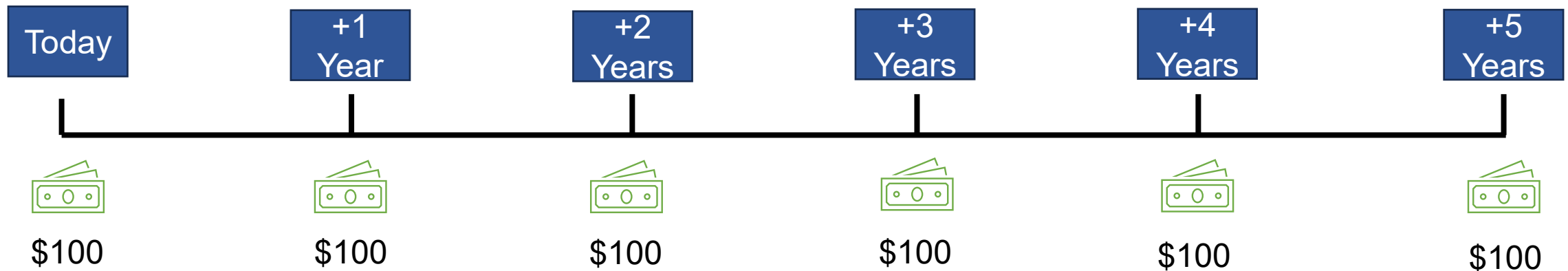
3 Characteristics of Money

1. Store of Value – Will hold its value over time.
2. **Unit Of Account – Used as a “yardstick” to measure value across an economy. Is an indisputable measure of value and can be compared against all goods and services in an economy.**
3. Medium of Exchange – Widely accepted as a payment method.

Opportunity cost and present value of cash

Time Value of Money (TVM):

1. Opportunity cost of consumption. We would rather spend money and enjoy our lives today than tomorrow.
2. Inflation slowly erodes your purchasing power. A dollar today will buy you more than a dollar a year from now.
3. When lending/investing, we are taking on risk. We need to be compensated for taking on this additional risk.



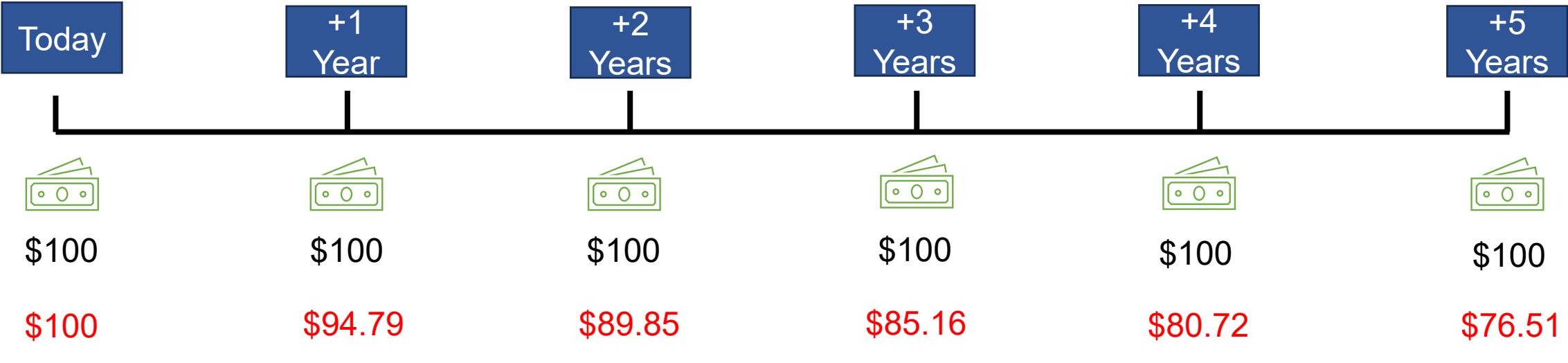
How much are each of these \$100 worth today?

Present Value Equation

Present Value = $\frac{\text{Future Value}}{(1 + r)^n}$

r = rate (opportunity cost)
 n = number of years from today

Opportunity cost of consumption (real interest rate) = 3.5%
 Expected Inflation = 2%
 No Risk



Value of financial assets = present value of its cash flow

Cash is a measure of absolute certainty. There is no subjectivity of how much \$1 is worth today. It's worth \$1.

Cash producing financial assets such as stocks and bonds can be valued based on the cash the investor will receive.

However, we can't just add the sum of all the cash the asset will give us. We have to consider the Time Value of Money, and discount future cash flows back to today.

Hence, the value of a financial asset is equal to the present value of its cash flows.

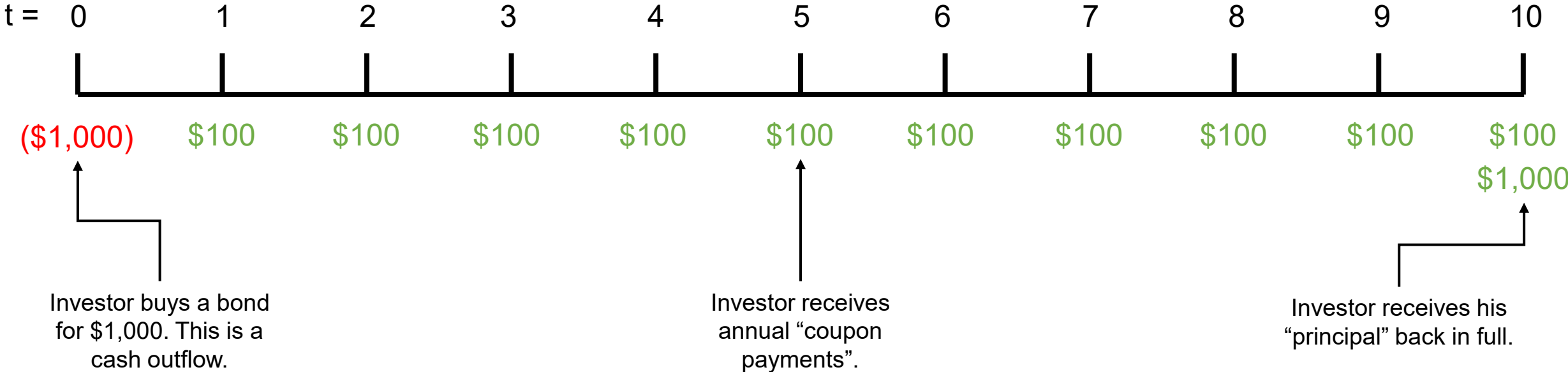
Bond Valuation – strictly defined cash flows

What do we need to know to value a bond?

1. The stream of cash flows. How much cash, and when is it being received?
2. The opportunity cost of the cash flows. What is the current market rate of the bond?


Bonds/notes/bills have a legally binding maturity.

- 1 Year
- 2 Year
- 10 Year
- 30 Year



Bond Valuation Excel

< All teams



Team - Aggie Investment Club ...


General

Fund

Internship Opportunities

Reminders

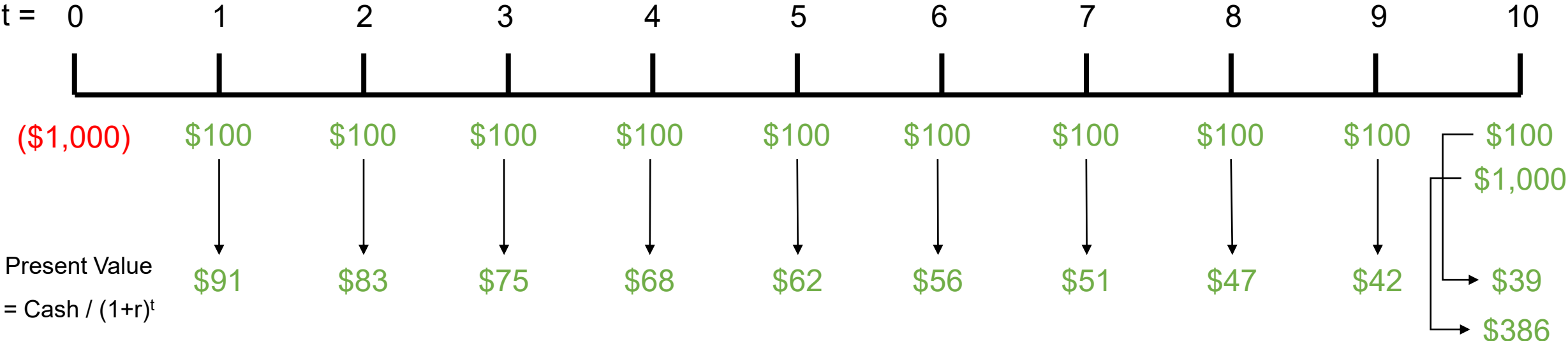
Name	Modified	Modified By	+ Add column
AIC BigShots	September 29	Trinh, Aaron	
2023 Contact Form Flyer.pdf	September 12	Colhoun, Logan	
Bond Valuation Excel.xlsx	Yesterday at 10:21 ...	Colhoun, Logan	
Equity Valuation Excel.xlsx	A few seconds ago	Colhoun, Logan	
How_to_Register_for_the_Trading_Challeng...	September 26	Rabalais, David	
IMD Intern Flyer.pdf	September 12	Colhoun, Logan	
Kerch Ryan - Resume (1).pdf	October 2	Vivanco-Pena, Juan	



General Posts Files +

Bond Valuation – strictly defined cash flows

Assume market rate is 10%.

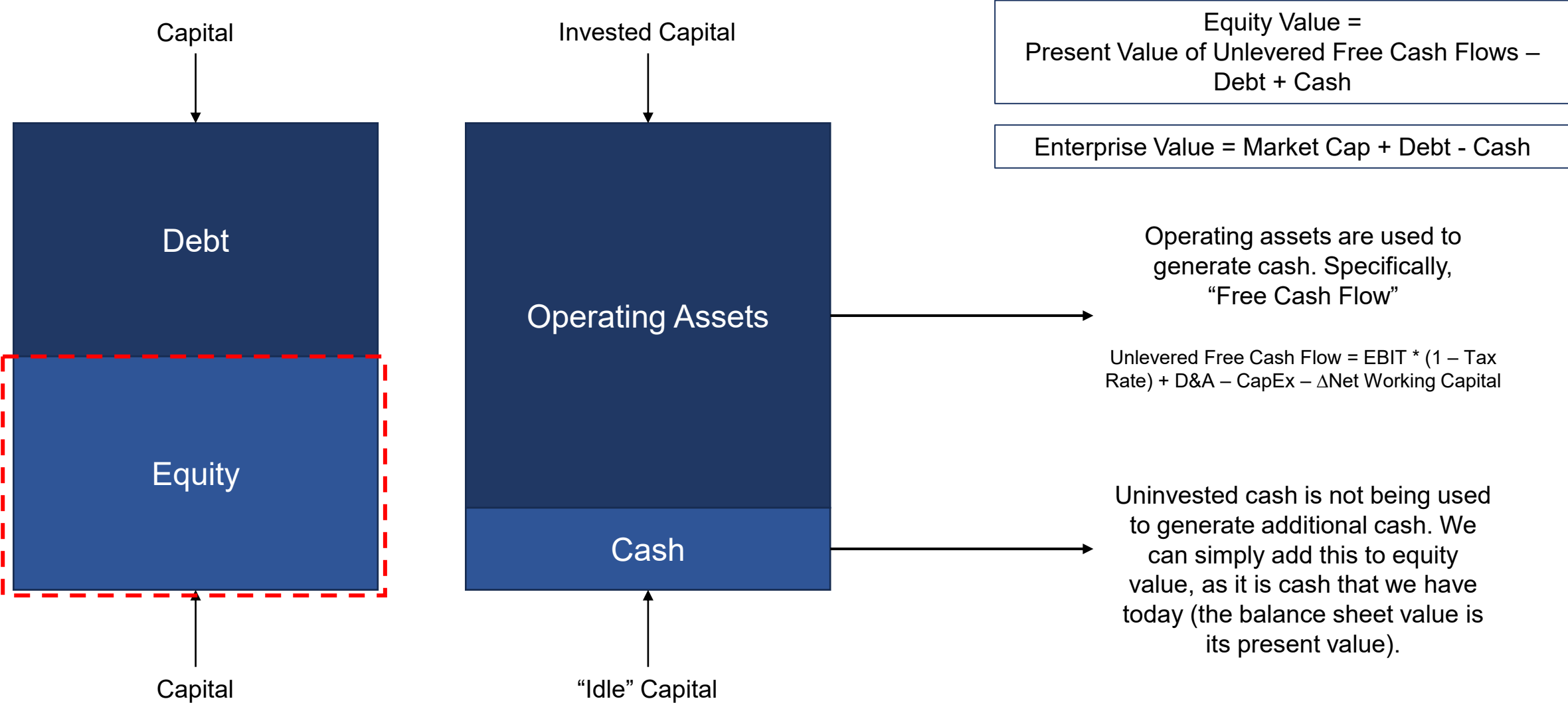


Price of Bond:
 91 + 83 + 75 + 68 + 62 + 56 + 51 +
 47 + 42 + 39 + 386 =
1000

$$V = \frac{F}{(1+r)^T} + \sum_{t=1}^T \frac{C}{(1+r)^t}$$


F = face value
C = value of each coupon payment
r = YTM
T = time until maturity (as # of coupon payments)

Equity Valuation – Residual Claim On Earnings



Equity Valuation Excel

< All teams



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General

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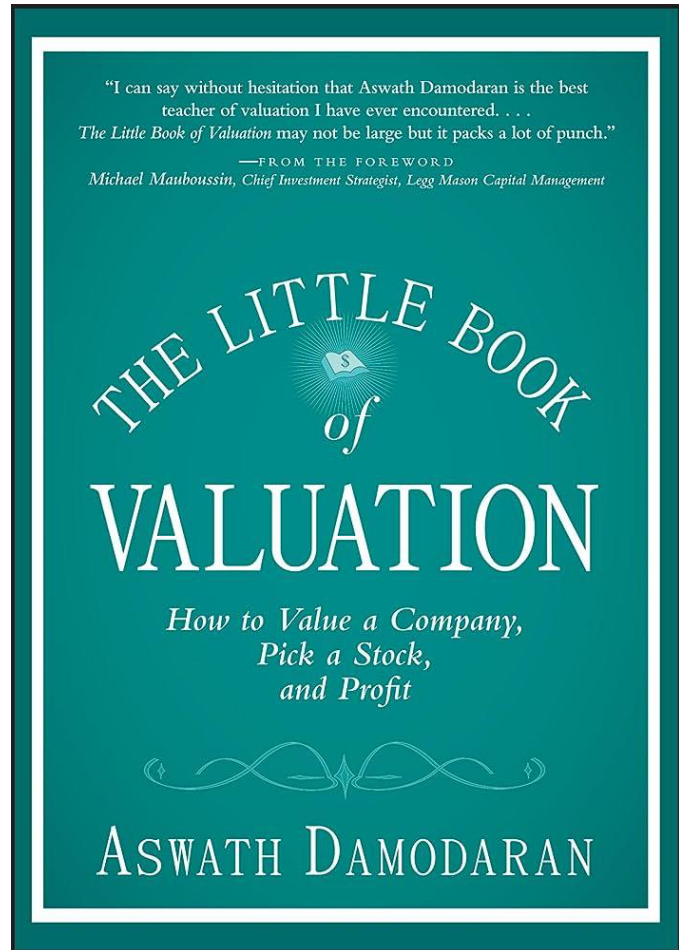
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Valuation Book Suggestions

Read First



Read Second

