



**Universidad del Desarrollo**  
Universidad de Excelencia

# **Finance I**

## **Fall 2012**

### **Session 3:**

## **Present Values**

## **and Capital Markets**



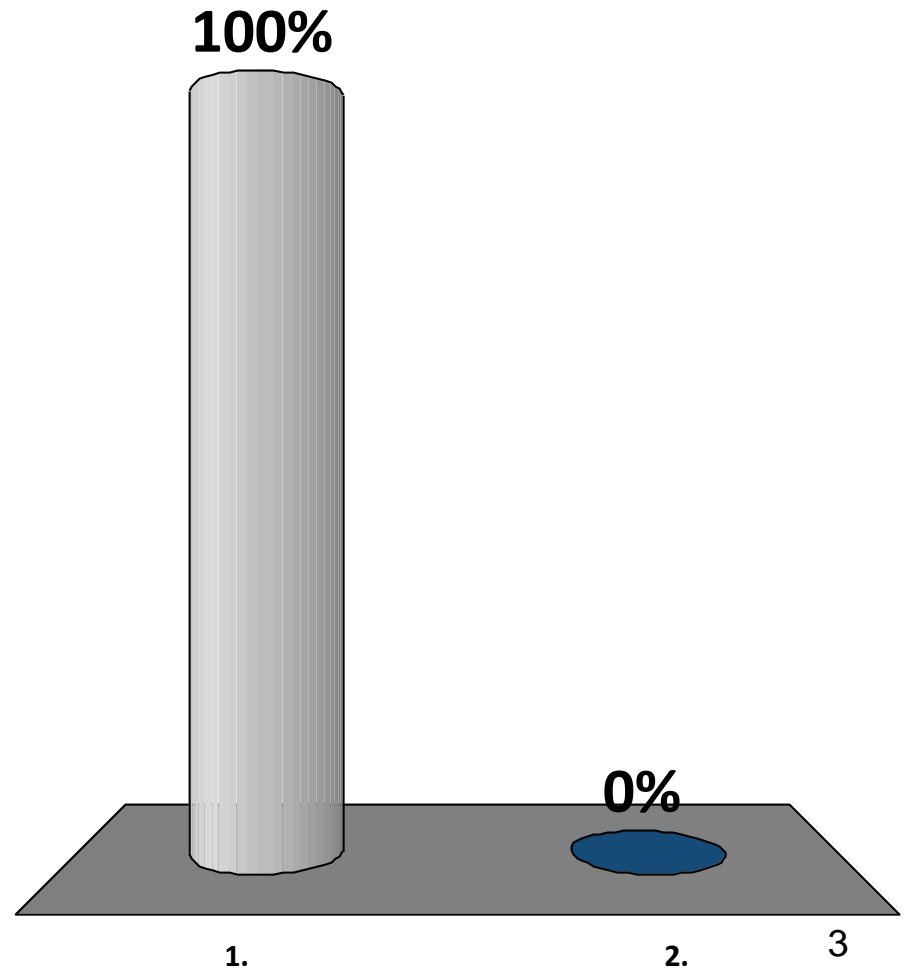
**1. Recap**

**2. Present Values**

**3. Closing**

# Are you paying attention?

- ✓ 1. Yes
- 2. No



# Fastest users

4,43	Participante 5916D6		
4,72	Participante 5916EC		
5,05	Participante 59172E		
5,92	Participante 58CA82		
6,79	Participante 58CAB2		

- ▶ **Corporate Finance**
- ▶ **Agency Problem**
- ▶ **Role of the Financial Manager**
- ▶ **Value**

**1. Recap**

**2. Present Values**

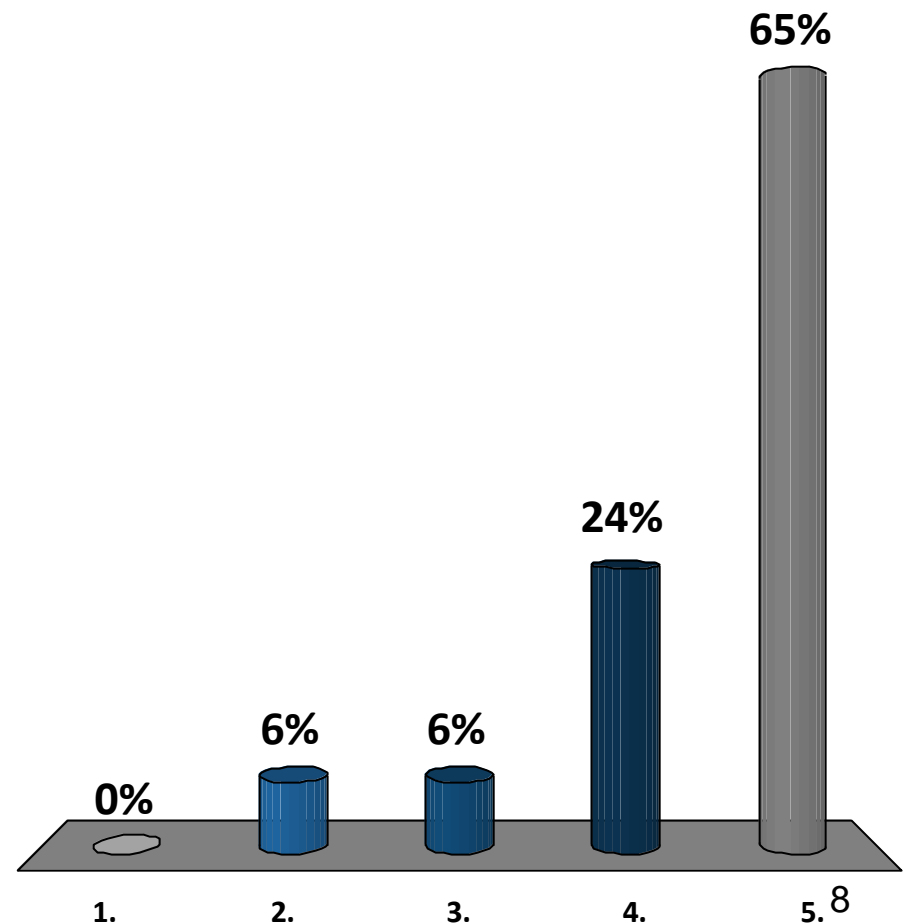
**3. Closing**

## 2. Present Value

- ▶ **Key assumption: Value is determined by the future cash flows generated by an asset**
  
- ▶ **As discussed last week, an individual would be willing to purchase an asset if its value (sum of future cash flows) is greater than its cost (price)**
  
- ▶ **Given that the cash flows will be received not only today but also in the future, we must keep in mind two concepts:**
  - A peso today is worth more than a peso tomorrow
  - A “safe” (risk free) peso is worth more than a risky peso

# A peso today is worth more than a peso tomorrow because...

1. ... you never know what's going to happen tomorrow
2. ... inflation will reduce the value of the peso
3. ... present consumption is better than future consumption
- ✓ 4. ... you can invest it today and receive more tomorrow
5. ... all of the above





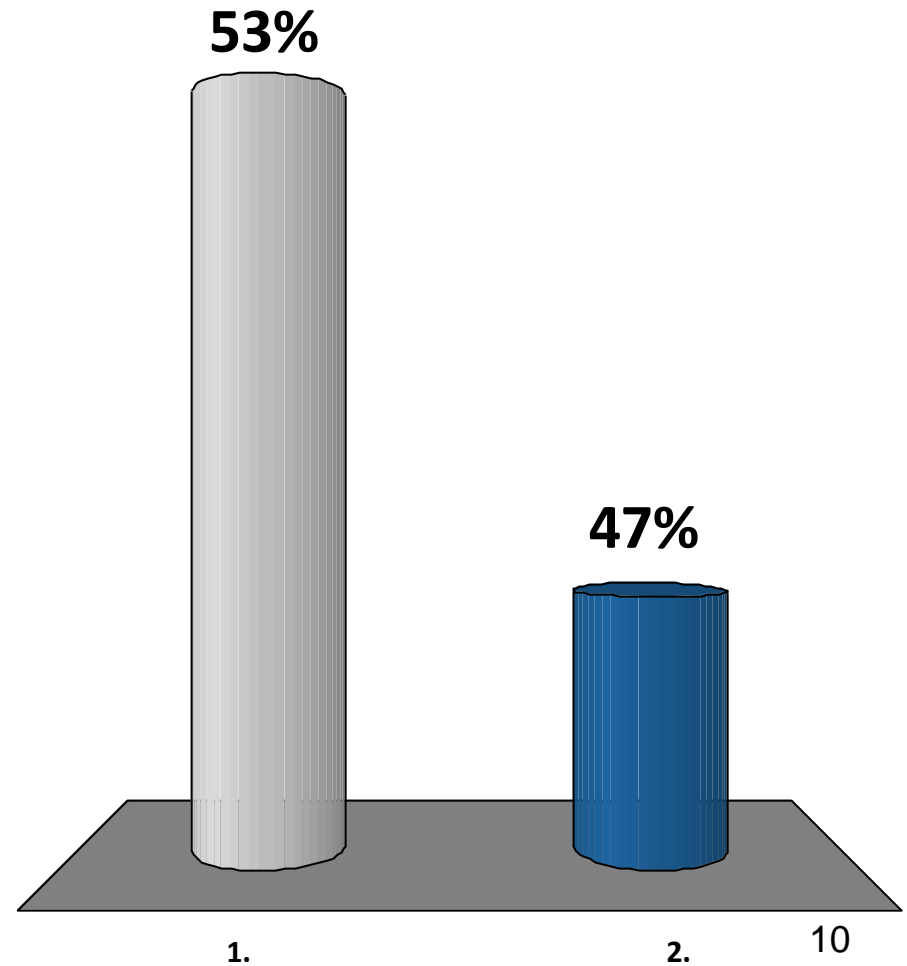
## 2. Present Value

- ▶ A peso today worth more than a peso tomorrow because you can invest it risk free and receive more than a peso in the future
- ▶ The return received from a risk free investment is called **time value of money**. It's what an individual requires as compensation for giving up the use of a peso today

If all the investment projects available in the world have a certain negative return of 5%, the time value of money is -5%

1. Yes

✓ 2. No

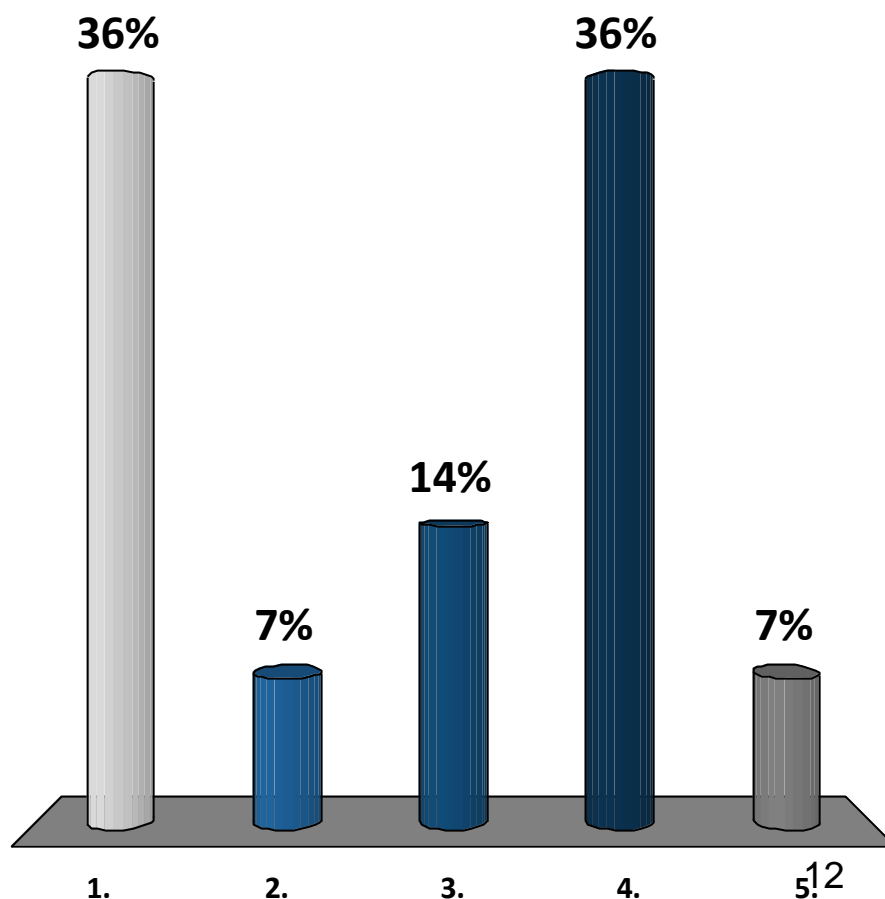


## 2. Present Value

- ▶ **Future Value: value generated by an asset in the future**
- ▶ **Present Value: value today of the future cash flows generated by an asset**
- ▶ **Net Present Value: value today of the future cash flows generated by an asset net off (discounting) the cost of acquisition**
- ▶ **Review formulae!!! It's not required to memorize them (although it's recommended) You'll perform several exercises on Wednesday at 14:30 with the TA (Teaching Assistant, Marianne Pollmann)**

# A “safe” peso is worth more than a risky peso because...

1. ... you never know what’s going to happen tomorrow
2. ... inflation will reduce the value of the peso
- ✓ 3. ... individuals are risk averse
4. ... higher risk leads to higher return
5. ... all of the above

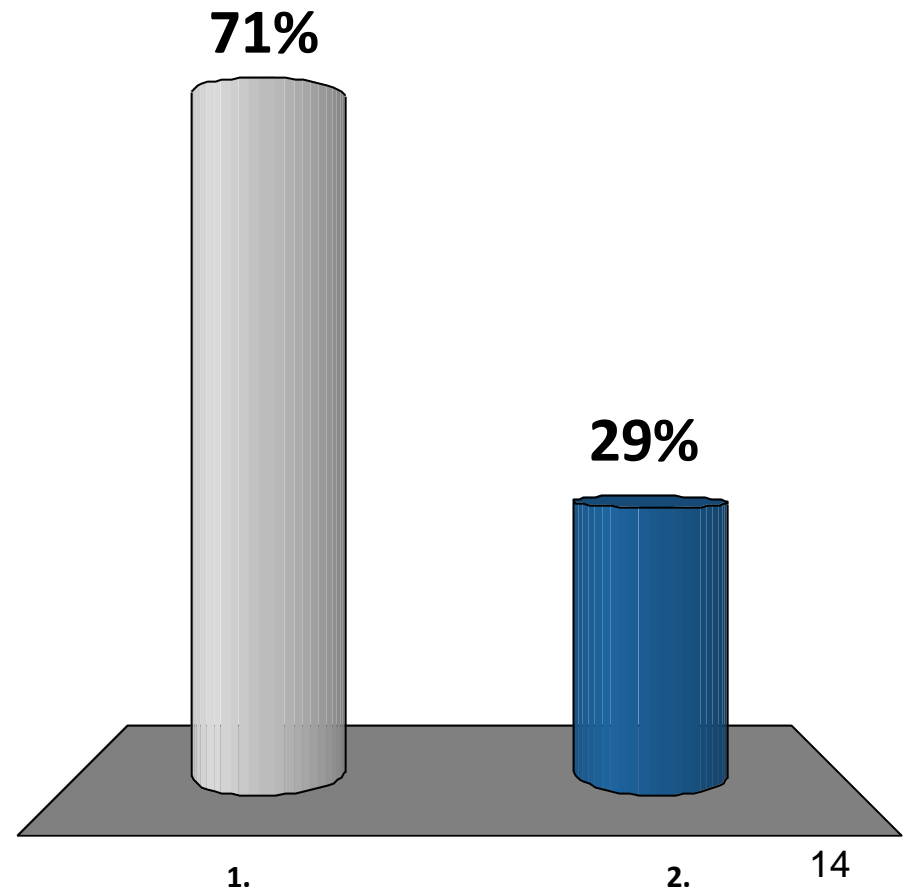


## 2. Present Value

- ▶ **A “safe” peso is worth more than a risky peso because individuals are assumed to be risk averse**
  - Individuals diminish their expected utility as risk (variance of results) increases
  - Are we risk averse?
  - Always?
  
- ▶ **Under the assumption of risk averse individuals:**
  - Within projects of the same level of risk, individuals will prefer the one with highest return
  - Within projects of the same return, individuals will prefer the one with the lowest risk
  
- ▶ **Opportunity cost of capital is the highest possible return for assets with the same level of risk**
  - If an asset is risk free, the opportunity cost of capital is equal to the time value of money

If an asset is risky, the opportunity cost of capital is higher than the time value of money?

- ✓ 1. Yes
- 2. No



## 2. Present Value

### ▶ Investment rules

- Invest in projects with positive net present values
- Invest in projects with returns higher than the opportunity cost (as long as all the future cash flows are positive)

▶ No mention of investment horizon (future payoff) or the level of risk....

▶ .... Why???

## 2. Present Value

### ▶ Assume a corporation with two owners (50% each):

- John is a recent graduate that wants to buy a sports car as soon as possible, therefore wants the company to invest in short term return projects
- Jane is 45 and has no interest in short term. She wants long term returns to match her retirement.

### ▶ The company has 3 different projects

- Project 1, short term return (1 year), with net present value of 100
- Project 2, medium term return (2 years), with net present value of 105
- Project 3, long term return (10 years), with net present value of 100

### ▶ If you were the financial manager of the company, what project would you choose? Work in groups (5 minutes)



## 2. Present Value

### ▶ Assume a corporation with two owners (50% each):

- John is a recent graduate who loves to gamble... he loves the thrill of uncertainty. He prefers risky projects with large payoffs, even if it means to lose money
- Jane is 45 and close to retirement.... She has no interest in risky investments. She wants safe returns, even though they might be low

### ▶ The company has 3 different projects

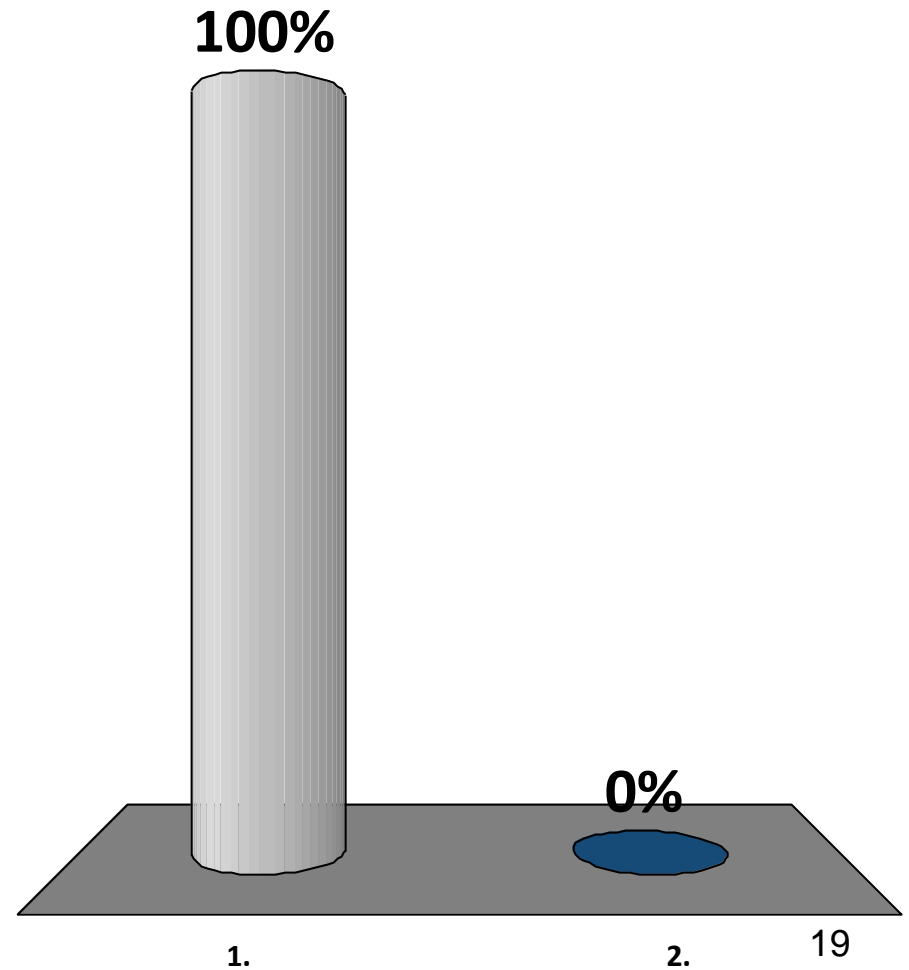
- Project 1, normal risk with net present value of 100
- Project 2, high risk with net present value of 105
- Project 3, extremely high risk, with net present value of 100

### ▶ If you were the financial manager of the company, what project would you choose? Work in groups (5 minutes)

1. Recap
2. Present Values
3. Closing

# Will you register in the class

- 1. Yes
- 2. No



- ▶ **A peso today is worth more than a peso tomorrow**
- ▶ **A “safe” (risk free) peso is worth more than a risky peso**
- ▶ **Investment decisions are not affected by owners preferences**

## ► Next class:

- Study chapter 8-9 BMA
- Next Wednesday TA session at 14:30
- Bring a friend and convince him/her to join the course. 1 contribution point for you and your friend as reward
- Get to know your classmates and evaluate potencial fit for your team

# Puntuaciones de participantes

45	Participante 5916EC		
40	Participante 58CA5D		
40	Participante 591715		
40	Participante 58CAB2		
35	Participante 5917FF		