



Universidad del Desarrollo
Universidad de Excelencia

Finance I

Fall 2012

Session 20:

Present Values



- ▶ **Why is it important to perform a financial plan?**
- ▶ **What is the difference between the short term and long term financial plan**
- ▶ **Should you have a deficit or a surplus of short term funding?**
- ▶ **What could increase your capital requirements?**
- ▶ **Do sales increase or decrease your capital requirements?**
- ▶ **Interpretation of accounting figures**
 - <http://www.youtube.com/watch?v=rKw82feuUGg>

► Why are we jumping from chapter 31 to chapter 2?

- The sequence developed by the school is the following
- General financial theory (Chapter 1-2)
- Risk and return (8-10 + 18)
- Financial Analysis, Working Capital and Short Term Financial Management (29-31)
- Bond Valuation (2-4)
- Stock Valuation (5)
- Project Valuation (6)

- Chapters 2-6 use concepts such as risk, return and cash-flows. It's easier to understand chapters 2-6 if you already understand those concepts.
- The most important part of the course are chapters 2-6. It's very likely that your financial needs will relate to these topics (valuation). This is the “grand finale”.

2. Present Values

- ▶ Why is a peso today is worth more than a peso tomorrow?
- ▶ Why is a “safe” (risk free) peso is worth more than a risky peso
- ▶ What is a discount rate?
- ▶ What is a discount factor?
- ▶ What determines the discount rate?

2. Present Values

- ▶ **If the risk free rate is 5% per year:**
 - ▶ **how much money would you receive in one year from now, if you deposit 100?**
 - Future value
 - ▶ **If someone offered you a risk free bond that pays 105 in one year from now, how much would you be willing to pay for it?**
 - Present value

2. Present Values

- ▶ **What would happen if the present value of the bond was less than 100?**
 - Since it's risk free, a person with 100 could buy the bond and still have extra money, which could be put in a deposit and earn a total of more than 5%

- ▶ **What would happen if the present value of the bond was more than 100?**
 - The seller could take your money, invest it in the risk free deposit and receive more than 105 in one year, thus making a risk free profit

- ▶ **Arbitrage should eliminate this possibility**

2. Present Values

- ▶ Present value of a cash flow (C) received in one year, discounted at an annual rate (r)
- ▶ Present value of a cash flow (C) received in two years, discounted at an annual rate (r)
- ▶ Present value of a cash flow 1 (C1) received in one year, plus cash flow 2 (C2) both discounted at an annual rate (r)
- ▶ Present value of a cash flow 1 (C1) received in one year,) discounted at an annual rate (r1) plus cash flow 2 (C2) discounted at an annual rate (r2) for the first year and second year
- ▶ General formula:
- ▶ Most of the times, we will assume the discount rate is constant for all periods

2. Present Values

▶ **Present Value of a Perpetuity:**

- For an option to receive an extra 0.2 in Midterm 2 PROVE that the present value of a perpetuity is:
- The first one to email the demonstration receives the extra 0.2

▶ **Present value of a perpetuity that starts next year**

- In three years?

▶ **Present value of an annuity that pays the same amount for three years?**

▶ **On Monday (TA), you'll do plenty of exercises**