Savings

Monday, Jan 20th

Class Overview

- Why Save?
- Simple and Compound Interest
- Compare Savings Under Varying Conditions
- Realistic Savings Goals

Why Save?

- For most students, saving is the only way to pay for a new smart phone, game console, or graduation dress.
- By learning why and how to save, you can set aside the money you'll need to achieve your goals
- Saving is also what you'll need to do to pay for your education, a car, a home, and eventually your retirement

Saving – Easier Said Than Done

- Only 20% of Canadian teenagers say they save money and do it consistently every month
- In a 2012 US study, half (51%) of teens reported that their main reason for saving was to have enough money for long-term future plans like college or university
- Other reasons for saving included saving for things like music and clothes (18%), saving for an iPod or computer (17%), and saving for an emergency (7%)

Story Time

- What was Sienna saving for?
  - She was saving to get enough money to open her own restaurant
- How did she manage to reach her savings goal?
  - She saved $50 each week and invested to earn interest
- How much did Sienna's savings grow?
  - Her monthly contributions combined with interest added up to $5,000 over two years

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- What could your various characters be saving for?
- Do you personally save money?
- What are you saving money for?

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- What would you do if you have to save $20 from your own money in the next month?
  - Examples:
    - Bring your own lunch instead of buying it
    - Visit a coffee shop or cafe less often
    - Cut out a movie, or popcorn and drinks at a movie

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- If you can do any of these simple steps once, you can do it every week, or every day.
- If you can save $20 a week, that adds up to about $80 a month, or $1,040 a year
- Even if you can save $20 a month, that adds up to $240 a year

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- Besides cutting expenses, you can also try to increase your income
  - Examples:
    - Babysit or cut lawns for two hours at $10 an hour
    - Collect 200 returnable bottles or cans and cash them in
    - Ask for additional shifts at your part time workplace

Savings

- By themselves, these little steps may not seem to save a lot, but if you do them consistently they can add up to significant savings, with little impact on your social life or enjoyment

- As you'll see in a few minutes, if you take that money and invest it for the future, it can grow over time and make a real difference in your life.

Reasons to Save

- Purposes for savings?
  - To buy a big item or pay for a big bill that's coming
  - To have emergency funds
  - To guild funds to invest
- Putting your money to work:
  - When you save, your money can earn interest
  - A savings account is a simple investment
  - Interest depends on time and risk

Reasons to Save

- Saving simply means not spending the money you have
- What kinds of big items are you saving for?
- What kinds of emergencies might arise that you would need savings for?

Ways to Save

- Work more
- Spend less
  - Reduce spending on “wants”
- Pay yourself first
  - Aim to save the first 10% of income after deductions

Pay Yourself First

- The easiest way to save is to set aside the first 10% of income after deductions (or whatever you can afford)

- You won't notice a small percentage deducted from your paycheque, but your savings will accumulate over time

Pay Yourself First

- Plan for savings and include them in your budget
- You can arrange to have your bank automatically transfer a small amount of your paycheque into a savings account. (The bank will have the discipline even if you don’t!)

Put Your Savings To Work

- Your savings can earn you money in:
  - A savings account
  - A guaranteed investment certificate (GIC)
  - A term deposit
  - A Canadian Savings Bond (CSB)
  - Other investments

Put Your Savings To Work

- Do any of you have a savings account?
  - Did you set it up or did someone set it up for you?
  - Are you saving some something specific?

Put Your Savings To Work

- A savings account is one way to set money aside and put it to work, but there are many others:

  i) Savings account:

  - A deposit account in a bank where your money is secure but accessible and usually earns a very limited amount of interest
  - Interest = the amount you receive from the bank for the use of your money
  - When you put money into a savings account, it is a form of low-risk investment
  - People don't usually think of a savings account as an investment, but it is

Put Your Savings To Work

iii) Canada Savings Bond (CSB):

- When you buy a Canada Savings Bond, you are lending your money to the federal government.
- In return, the government pays interest until you decide to cash in (redeem) the bond.

Put Your Savings To Work

ii) Guaranteed Investment Certificate (GIC) and term deposit:

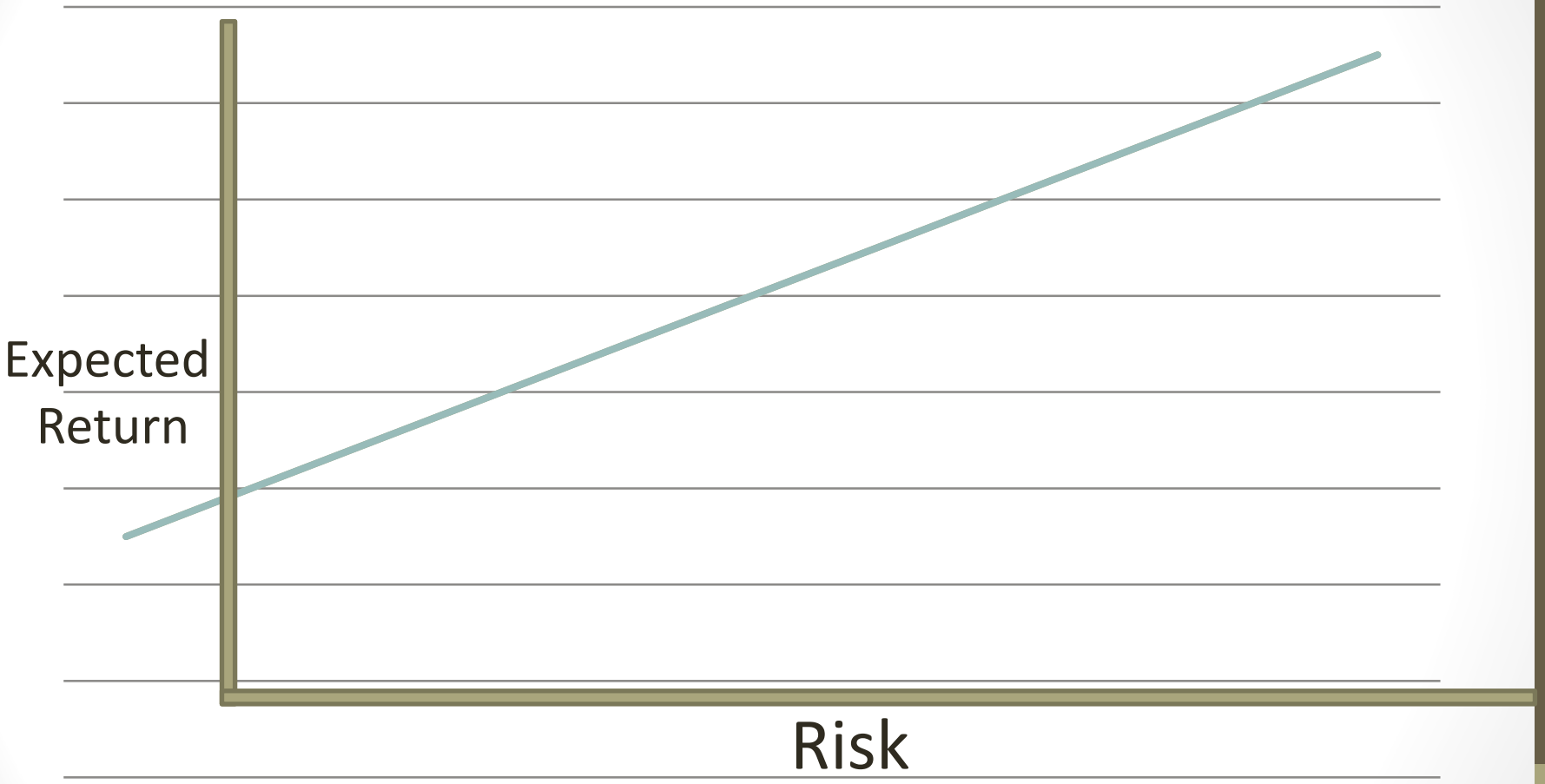
- A deposit where you agree to leave the money in the account for a fixed period of time (from 90 days to five years).
- In exchange, you get interest on your deposit, usually at higher rates than in a savings account

Put Your Savings To Work

- Each type of investment has different advantages and disadvantages

- The key point is to start the habit of saving → then you can figure out the best way to put those savings to work.

Expected Return and Risk



- **There's no free lunch:**

high expected return = high risk

Expected Return and Risk

- Money earns interest at different rates
- The amount of income that an investment earns is called the return
- One key factor in determining whether money earns a high income or a low income is the amount of risk associated with the investment
- If risk is high, you don't invest unless you think you will receive a higher return than that offered by a safer investment

The Sale of Manhattan Island

- Dutch colonists acquired the island from native owners for trade goods worth about $1,000 in today's dollars
- Today, this may not look like a great real estate deal for the native owners. But what would it be worth if the native people had invested their $1,000 at 5% interest, compounded annually?
- $1,000 invested at 5% for 384 years would give you $137 billion
- That's the power of compounding: how savings add up over time

Savings Add Up

- The magic of compounding:
  - Simple Interest = interest paid only on the initial deposit
    - $100 at 5% simple interest earns $5 every year
    - $5 in the first year (total: $105)
    - $5 in the second year (total: $110)
    - $5 in the third year (total: $115)
    - $5 in the fourth year (total: $120)
    - Etc.

Savings Add Up

- Compound Interest = interest paid on the initial deposit and on any interest that has been earned.
  - $100 at 5% compound interest earns $5 in the first year (total: $105)
  - $5.25 in the second year (total: $110.25)
  - $5.51 in the third year (total: $115.76)
  - $5.79 in the fourth year (total: $121.56)
  - Etc.

Savings Add Up

- Canadian financial institutions pay compound interest, which is paid and compounded monthly
- Save now because you will earn interest on the interest, and saving money over time adds up
- The magic of compounding means that starting long-term savings while young creates a big advantage

Saver and Spender

• Joe Saver 19 years old $3,000 a year a 8% for 9 years	28 years old $40,459.69	65 years old $0/year for 37 years = ??????
• Jim Spender 19 years old $0/year for 9 years	28 years old $0	65 years old $3,000/year for 37 years = ??????

Saver and Spender

- Joe Saver
  - Knows the value of compound interest, and starts saving right away
  - At the beginning of each year, he puts $3,000 into a long-term investment that earns 8% annual compound interest
  - He manages this for 9 years, then at the age of 28 starts a family and spends all of his income supporting his family. He puts no more money into the investment, but lets it grow until his retirement

Saver and Spender

- Jim Spender
  - Likes to party and travel, so he spends all of his money for a while
  - When he turns 28, he decides he had better be like his friends and start to save. He also puts $3,000 a year into the same long-term investment earning 8% annual compound interest
  - He continues to save $3,000 every year for the next 37 years until he retires at age 65

Saver and Spender

Who will have more saved at retirement???

• Joe Saver 19 years old $3,000 a year at 8% for 9 years	28 years old $40,459.69	65 years old $0/year for 37 years = ??????
• Jim Spender 19 years old $0/year for 9 years	28 years old $0	65 years old $3,000/year for 37 years = ??????

Saver and Spender

• Joe Saver 19 years old $3,000 a year a 8% for 9 years	28 years old $40,459.69	65 years old $0/year for 37 years=$697,752
• Jim Spender 19 years old $0/year for 9 years	28 years old $0	65 years old $3,000/year for 37 years=$657,947

Saver and Spender

- Joe Saver has more because he started earlier and let compounding interest do much of the work.
- Jim Spender waited nine years to start saving, and after 37 years he still can’t catch up

LIFE LESSON ☺

Rule of 72

- “Roughly how long will it take to double my money?”
  - Using compound interest:
    - 72 ÷ interest rate = number of years to double savings

      Eg. 72 ÷ 5% = 14.4 years to double

    - 72 ÷ years = interest rate needed to double savings

      Eg. 72 ÷ 10 = 7.2% interest needed to double money in 10 years

Video

Quiz