FINANCIAL LITERACY
The Basics of Personal Finance

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Topics To Discuss

- Net Worth

- Budgeting and Spending

- Student Loans

- Credit and Debt

  - Credit Scores

- Compound Interest

  - Saving

  - Investing

Financial Literacy

▸ The ability to use knowledge and skills to manage one's financial resources effectively for lifetime financial security

  ▸ Knowledge

  ▸ Action

▸ Why is it important?

  ▸ Improve your standard of living

  ▸ Ensure stable future (retirement)

  ▸ Reduce anxiety associated with financial matters

  ▸ Make sound financial decisions

  ▸ Teach children good habits

Resource Management

▶ What can I afford?

▶ What are my financial goals?

   ▶ Long Term – Save $1,000,000 to retire by 60

   ▶ Medium Term – Pay off my student loans in 7.5 years

   ▶ Short Term – Save $5,000, in the next 1.5 years, to use as a down payment on a car

▶ Am I saving enough?

▶ How do I keep track of my progress?

Net Worth

▸ <u>Net Worth</u> – tool that helps you to understand your financial health and growth over time

ASSETS – LIABILITIES = NET WORTH

▸ Where ASSETS are items of value, you own, that can be sold for cash, and LIABILITIES are any debts you owe

▸ Think of it as a Health Meter in a video game

Net Worth

- <u>Net Worth</u> – tool that helps you to understand your financial health and growth over time.

- Where _____ can be sold for _____ ve

  - Think

Net Worth

1. Personal Capital
2. Mint
3. YNAB

Meet Crystal

Crystal
- Recently graduated NYU
- Student Loans: $30,000
- Interest Rate: 5%
- Starting Salary: $60,000
- Job: Marketing Analyst
- Graduation Gifts: $2,000

What is Crystal's Net Worth?

Net Worth

▸ Assets – Liabilities = Net Worth

Assets	Liabilities
Savings Account = $2,000	Student Loan = $30,000
Total Assets = $2,000	**Total Liabilities = $30,000**
Net Worth = -$28,000	

▸ Knowing your net worth makes you more mindful of your financial activities, better prepared to make sound financial decisions and more likely to achieve your short-term and long-term financial goals

Budgeting and Spending

▸ <u>Budget</u> – an outline of how you plan to spend your money that should enable you to balance what you earn with what you spend

▸ Spending more than you earn has a negative impact on your net worth

▸ Ensures that you will always have enough money for the things you need

Can I afford a cruise over the holidays?

Can I afford a $400 car payment?

Will I have to cut back on lunch to buy the new iPhone?

▸

Budgeting and Spending

- 50/30/20 Budgeting Guideline
- 50% of after tax income on essential expenses
  - Rent
  - Car
  - Groceries
- 30% on wants
  - Entertainment
  - Dining Out
  - Vacation
- 20% on savings and investments

Budgeting and Spending

▸ **FI/RE – Financial Independence Retire Early**
  ▸ Save and invest 50 – 70% of your income
  ▸ Extremely frugal living

▸ **Emergency Fund**
  ▸ Keep up 3 – 6 months worth of expenses in a savings account
  ▸ To be used in case of emergency, think medical bills or car breakdowns, not new iPhone

▸ **"Pay Yourself First"**
  ▸ Set aside 10% of everything you earn before paying bills

▸

Budgeting and Spending
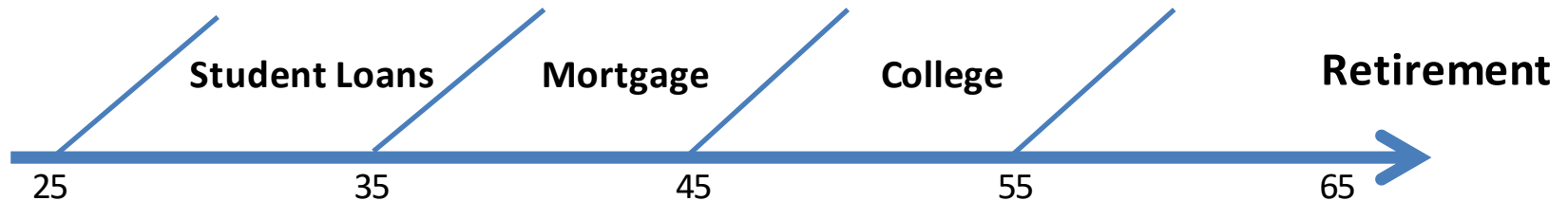
Crystal's Budget

MONTHLY INCOME & EXPENSES	
Description	**Amount**
Paycheck	$ 5,000
Taxes	$ 1,400
INCOME	**$ 3,600**
Cable/Internet	$ 150
Cell Phone	$ 100
Groceries	$ 300
Rent/Utilities	$ 1,750
Savings	$ 360
Shopping/Entertainment	$ 350
Student Loan	$ 340
Transportation	$ 250
EXPENSES	**$ 3,600**

Budgeting and Spending

Student Loans – $27,975

Mortgage – $309,200

College – $46,950 (Private), $20,770 (Public)

Retirement – $738,400

Student Loans

General Student Loan Debt Stats 2017

▸ Student loan debt is the second highest form of debt in the U.S., second only to mortgages

▸ Percent of College Grads with Student loan Debt: 70%

▸ Total Amount of Student Loan Borrowers: 45 million

▸ Average Debt Per Borrower: $27,975

▸ Average Federal Student Loan Default Rate: 11.5%

Student Loans

If you're attending college, you're more likely than not to graduate, or to have graduated, with student loan debt

- ▸ A $30,000 loan at 5% may cost you $318/month for 10 years, totaling over 38,500 in cumulative payments

▸ How will these payment expectations will impact you?

▸ What is the expected salary of the occupation you're pursuing?

- ▸ A payment of $318/month is about 15% of a $35,000 annual salary and would represent your second largest expense, after housing

Student Loans

▶ What to do (short-term)

  ▶ Don't borrow more than you need

  ▶ Sacrifice short term wants

  ▶ Work part-time

▶ What to do (long-term)

  ▶ Refinance the debt

  ▶ Loan Forgiveness Programs

  ▶ Make extra payments

Student Loans

Loan Balance: $30,000.00

Payment: $318.20

Extra Payment: $100.00

Without Extra Payments		With Extra Payments	
Total Payments:	$38,501.66	Total Payments:	$35,715.57
Total Interest :	$8,501.66	Total Interest :	$5,715.57

Savings

Prepayment Savings: $2,786.09

Reduction in Interest: 32.77%

Reduction in Loan Term: 2.8 years

Crystal's Finances: 5 Years Later

Assets	Liabilities
Savings Account = $22,500	Student Loan = $16,000
Retirement = $2,500	Credit Card = $5,500
Total Assets = $25,000	**Total Liabilities = $21,500**
Net Worth = $3,500	

I need a car!

MONTHLY INCOME & EXPENSES	
Description	**Amount**
Paycheck	$ 6,000
Taxes	$ 1,680
INCOME	**$ 4,320**
Cable/Internet	$ 150
Credit Card	$ 550
Cell Phone	$ 100
Groceries	$ 300
Rent/Utilities	$ 1,750
Savings	$ 360
Shopping/Entertainment	$ 520
Student Loan	$ 340
Transportation	$ 250
EXPENSES	**$ 4,320**

Credit and Debt

- Credit Score – a number that each person with a credit history earns that predicts how likely you are to repay debt

- Banks and lenders use it to decide whether they will approve you for a loan or credit card
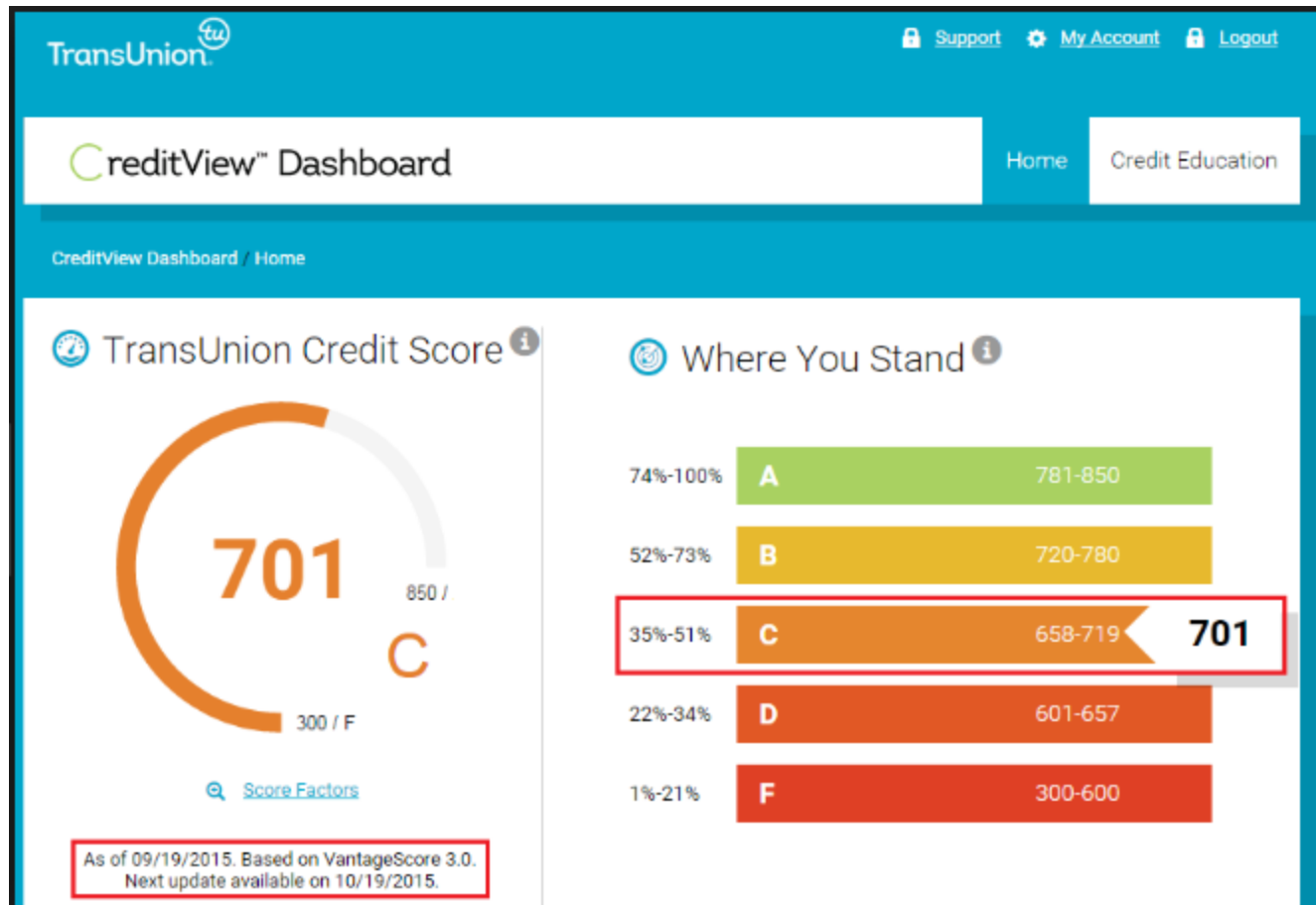
Credit and Debt

▸ FICO SCORE

Credit and Debt

Crystal's Credit Score

Credit and Debt

48 Month, $15,000 Loan

FICO Score	Interest Rate	Monthly Payment	Total Interest Paid
720 and above	3.07%	$332	$959
690-719	4.292%	$341	$1,351
660-689	6.049%	$353	$1,925
620-659	9.598%	$378	$3,122
590-619	15.177%	$419	$5,103
500-589	16.909%	$432	$5,742

https://www.thesimpledollar.com/what-is-a-good-credit-score/

Crystal's Finances: 5 Years Later

Assets	Liabilities
Savings Account = $19,500	Student Loan = $16,000
Retirement = $2,500	Credit Card = $5,500
Car = $15,000	Auto loan = $12,000
Total Assets = $37,000	**Total Liabilities = $33,500**
Net Worth = $3,500	

MONTHLY INCOME & EXPENSES	
Description	**Amount**
Paycheck	$ 6,000
Taxes	$ 1,680
INCOME	**$ 4,320**
Cable/Internet	$ 150
Credit Card	$ 550
Cell Phone	$ 100
Groceries	$ 300
Rent/Utilities	$ 1,750
Savings	$ 360
Shopping/Entertainment	$ 120
Student Loan	$ 340
Auto Expenses	$ 650
EXPENSES	**$ 4,320**

Summary

▸ Net Worth calculations, Budgeting, and Credit Scores are tools that help inform financial decisions and support both long and short term financial goals

  ▸ Know the impact to your net worth when buying or saving

  ▸ Your budget tells you what you can afford

  ▸ Credit scores determine how much borrowing money costs

▸ Student loan payments should be a part of your budget to avoid default

▸ Make saving money a habit by paying yourself first

SECTION II

Assets	Liabilities
Savings Account = $500	Student Loan = $12,500
Checking Account = $250	Credit Card = $7,500
Car = $4,500	Auto loan = $6,250
Total Assets = $5,250	**Total Liabilities = $26,250**
Net Worth = -$21,000	

MONTHLY INCOME & EXPENSES	
Description	**Amount**
Paycheck	$ 2,500
INCOME	**$ 2,500**
Auto Expenses	$ 450
Credit Card	$ 350
Cell Phone	$ 100
Groceries	$ 200
Rent/Utilities	$ 1,250
Student Loan	$ 300
EXPENSES	**$ 2,650**

Credit and Debt

- **Benefits of Credit**
  - Convenience
    - Travel
    - Dangers of Cash
    - Purchase Protection
  - Build Credit History
    - Credit Score
  - Save Money
    - Better Interest Rates
    - Rewards Programs

- **Disadvantages of Credit**
  - Convenience
    - Debt
  - Interest and Fees
  - Difficult to recover

Minimize, or avoid, debt and interest

Credit and Debt

‣ **Debt Costs Money**

  ‣ It will take Dexter over 2 years (26 months) to pay off his $7,500 debt, paying $350/month, at 16% interest

  ‣ He will have paid back the debt plus about $1,750 in interest

  ‣ Reducing his payment to $175/month will take over 5 years to pay his debt back (64 months). He will have paid back $11,195, $3,695 in interest

‣ **Good Debt vs. Bad Debt**

  ‣ Good debt can increase your long term net worth

  ‣ Debt to buy an asset that loses value over time = BAD

Why is bad debt so difficult to manage?

Compound Interest

▸ "Compound interest is the eighth wonder of the world. He who understands it, earns it ... he who doesn't ... pays it."   -Albert Einstein

▸ Interest added to the principal of a deposit or loan so the added interest also earns interest

    ▸ Interest on interest

$100 invested at 10% interest rate

	Simple Interest	Compound Interest
Year 1	$110	$110
Year 2	$120	$121
Year 3	$130	$133
Year 4	$140	$146
Year 5	$150	$161
Year 10	$200	$259
Year 20	$300	$672
Year 30	$400	$1,744
Year 40	$500	$4,526
Year 50	$600	$11,739

Compound Interest

Would you rather receive one million dollars or a penny doubled every day for 30 days?

Compound Interest

Day 1	0.01	Day 11	10.24	Day 21	10,485.76
Day 2	0.02	Day 12	20.48	Day 22	20,971.52
Day 3	0.04	Day 13	40.96	Day 23	41,943.04
Day 4	0.08	Day 14	81.92	Day 24	83,886.08
Day 5	0.16	Day 15	163.84	Day 25	167,772.16
Day 6	0.32	Day 16	327.68	Day 26	335,544.32
Day 7	0.64	Day 17	655.36	Day 27	671,088.64
Day 8	1.28	Day 18	1,310.72	Day 28	1,342,177.28
Day 9	2.56	Day 19	2,621.44	Day 29	2,684,354.56
Day 10	5.12	Day 20	5,242.88	Day 30	5,368,709.12

Compound Interest

▸ Time is the most important factor in the calculation of compound interest. The earlier you start investing, the greater your potential returns.

One last example:

A person who invests $5,000/year with an 8% annual return from ages 25 – 35 will have $904,488

A person who invests $5,000/year from ages 35 – 65, with the same annual return rate will have

$666,068

Saving

- Over an adult's working life, college graduates can expect, on average, to earn $2.1 million; and people with a master's degree, $2.5 million. -U.S. Census Bureau

- "Pay Yourself First" – systematically direct 10% of your earnings into a savings account. Preferably an online account with no debit card, e.g., Marcus Savings

- Although saving a portion of what you earn is a great way to build financial independence, investing provides a powerful alternative to a simple savings account

Investing

What is investing?

- In finance, the purchase of a financial product or other item of value, with an expectation of favorable future returns. In other words, investing is putting today's money to work to earn more money tomorrow

- Due to its long history of above average returns, many people choose to invest in the stock market. The reason can be summarized in two words:

COMPOUND INTEREST

Investing

Decade	Avg. Yearly Return	$100 Investment
1910s	4.2%	151
1920s	14.3%	574
1930s	-0.3%	557
1940s	8.3%	1,237
1950s	18.8%	6,927
1960s	5.2%	11,500
1970s	4.6%	18,031
1980s	17.5%	90,447
1990s	18.6%	498,012
2000s	-1.0%	450,393
2010s	13.2%	1,374,705
Average	**9.4%**	

Investing

- Who should be investing?
  - Everyone
- Why doesn't everyone invest?
  - Risk aversion
  - Fear/Uncertainty
  - Unsure of how to or what to invest in
- When to invest?
- How to invest?

Investing

▸ When to invest?

1. You understand you finances

    a. Budget

    b. Income vs. expenses

    c. Know where every dollar goes

2. Pay off expensive debt

3. Build an emergency fund

    a. 3-6 months of expenses

4. Think about your investment goals

5. Start investing!

Investing

▸ How to invest?

    1. Retirement account through work

        a. 401k/403b

    2. Online Brokerage account

        a. IRA

        b. Taxable

    3. Robo-Advisor

        a. Wealthfront

        b. Betterment

Summary: Net Worth

▸ Reviewing your net worth over time can help you determine

  ▸ Where you are financially

  ▸ Help to define where you want to be

▸ This can give you encouragement when you're heading in the right direction (e.g., reducing debt) or provide a wake-up call if you are not on track

▸ Knowing how an action (ex. buying a new iPhone) impacts your net worth can influence your decisions positively

Summary: Budgeting

- Create a plan for how you will spend your money
- Spending less than you earn will boost your savings
- Treat saving money like an expense to ensure you save
  - Pay yourself first
- A good budget creates a plan for every dollar you earn
- A good budget tells you what you can afford, which should be based on your financial goals

Summary: Credit and Debt

▸ Using credit wisely increases convenience and can save you money

▸ Your credit history determines your credit score

▸ Avoid bad debt (i.e., credit card debt), due to its high interest rate

▸ Compound interest can work for or against you

Summary: Investing

- Due to compound interest, investing is a great tool increase your net worth and fund your long term financial goals

- Put yourself into a financial position to take advantage of investing early in life—take full advantage of compounding

- Match your investment strategy to your financial goals to avoid anxiety caused by market volatility

QUESTIONS?