Unit 2: Personal Finance
Milestone Exam Practice

SSEPF1a) Coupons, "buy-one, get-one free" deals, mail-in-rebates, sales, and discounts are
a) positive incentives encouraging people to spend money.
b) negative incentives encouraging people to spend money.
c) positive incentives discouraging people from spending money.
d) negative incentives discouraging people from spending money.
What are Financial Institutions, and what 3 primary purposes do they serve?

1. **Commercial banks**: financial institutions that offer checking and savings accounts, receive deposits of money, extend credit by providing loans.
   - Interest charged: interest the bank charges them to borrow money.
   - Interest earned: interest the bank pays them for the use of their money.
     - Which interest rate do you think is higher???

2. **Credit unions**: are cooperative associations that serve only their members. They offer checking and savings accounts, as well as grant loans.
   - Interest rates on loans are usually less at a credit union than at commercial banks but you must be a member of that credit union (annual fee)
Banks, the Fed, and Fractional Reserve Banking!!

• Banks and other financial institutions primarily serve to offer checking and savings accounts to customers, take deposits, and provide loans

• **Fractional Reserve Banking** is when banks hold only a small portion of deposits to cover potential withdrawals and loans the rest of the money out. (Banks make money through **INTEREST!!!**)

• The **Federal Reserve (Fed)** is the U.S. **central bank**, which serves to (1) **Regulate the Nation’s Money Supply** and (2) **Oversee all Financial Institutions**

• If we all went to the bank to withdrawal money at the same time what would happen?

  **BANK RUN!**

• One “tool” of the Fed to control the money supply is called the **Reserve Ratio Requirement (RR)**, which mandates all banks to hold at certain percentage of cash in the vault (hence the term **Required Reserves**) to have for customer withdrawals; and banks can loan out the **Excess Reserves** with **INTEREST!!!**

• The **current RR is 10% (0.1)**, meaning **banks can loan out 90% of their money!!!**
The Money Multiplier

- The **Money Multiplier** calculates how banks increase the money supply by loaning out money that has been deposited.

- **Money Multiplier** = \( \frac{1}{RR} \) so \( \frac{1}{0.1} \)

- For example, let’s say Baley deposits $500 to Chase Bank. How much will this increase the money supply if the RR is 10%? Go ahead and solve!

- Answer: $4,500

- $500 \times 0.1 = $450 (Bank must hold $50 in reserves) and \( \frac{1}{0.1} = 10 \) (money multiplier) so $450 \times 10 = $4,500

1. Reagan deposited $1,000 into Regions Bank. If the Reserve Requirement is 10%, how much “new” money has been created due to Reagan’s deposit?

2. If Bank of America receives $10,000 in new deposits and loans out $8,000 available in loans, what is the Reserve Requirement?

3. Now calculate how much “new” money Bank of America can loan with the $10,000 deposit.
SSEPFF2a) The financial institution that generally charges the LOWEST rates on loans is a
a) finance company.
b) commercial bank.
c) credit union.
d) savings and loan.
Financial Institutions and Investments

Why should you invest your money, and what is the relationship between financial risks and returns?
Why should you invest your money?

1) Retirement
2) So your money is making an “income”
3) Short-term purchases: buying a car, college tuition, etc.

- **Compounding interest** is a key aspect of investing
- **Risk and Return is a direct relationship.** The riskier the investment, the higher the rate of return possible. However, the investor assumes a greater risk that a portion of or all of the money invested could be lost.
  - Stocks are risky but returns can be high
  - Savings accounts & CDs are low risk but carry low returns
Investments: Riskiest to Safest

1) **Stocks** – shares in a company that an individual/organization purchases, giving that person/entity part ownership
   ❑ Invest in riskier stocks when you’re younger and less risky as you get closer to retirement age

2) **Bonds** – loans (I.O.U with fixed interest rate) to either a company or the government

3) **Mutual Funds** – pool money from a number of investors to buy a range of investments: stocks, bonds, short-term money-market instruments, or other securities (diversified portfolio)

4) **Certificates of Deposit (CDs)** – timed savings account that pays higher interest rates than savings but invokes penalties for early withdrawal

5) **Savings Account** – Income that is not spent on consumption but is put aside (very low interest rate; more of a holding account than anything)
Isaac is going to start a lemonade stand, but he needs some money to get started. What should he do?

Isaac went down to his Gaggi’s house and asked if she would lend him $100. He promised to pay Gaggi back over the course of a year, making monthly payments of $10. She agreed to loan him the money with a 5% fixed interest rate!

Isaac’s Gaggi just bought a bond!

- **Bonds** are loans, or IOUs, that represent debt that the government, business, or individual must repay to the lender.
- The bond holder has NO OWNERSHIP of the company.

To get more money, Isaac decided to sell his brother 25% of his lemonade business.

What type of investment did Noah make?

- **Stocks**- Represents ownership of a corporation and the stockholder is often entitled to a portion of the profit
SSEPFe) Based on the graph, which of these statements is TRUE?

a) Investors who want low risk should invest in bonds.

b) A certificate of deposit is a riskier investment than a bond.

c) Money in a stock-based mutual fund grows as fast as in a bond.

d) Money in stocks have both high risk and high potential return.
1. What 3 functions do financial institutions provide?
2. Which financial institution usually offers the lowest interest rates?
3. What is the cost of credit?
4. How do banks make money?
5. What is the name of the U.S. central bank & what 2 jobs does it do?
6. What is meant by the Reserve Requirement (RR), what is the current Reserve Ratio, and what is the formula for the Money Multiplier?
7. Why do individuals invest their money?
8. What is the relationship between risk and return when investing?
9. What is the riskiest investment? Lowest risk? What’s all in between??
10. What is the difference between a stock and a bond?
11. Explain the difference between savings accounts and CD’s?
12. Name your top 10 WWE wrestlers of all time!
How much “New Money” is being created??

1) Robyn earns $800 from her job this week and decides to deposit only $200 into her checking account with Regions bank. She has been eyeballing a Disney Dooney and Bourke purse for awhile and now has $600 to finally purchase it! If the Federal Reserve has established the Reserve Ratio at 10%, how much new money will Robyn’s deposit eventually create if the bank loans out all its excess reserves?

2) Drake receives $5,000 from his uncle for an early graduation present! Drake decides not to blow the gift money on a Cancun trip with his buddies, but instead purchases a Certificate of Deposit from Wells Fargo with a higher interest rate (6%) than his current savings account (1%) at Chase Bank. If the Fed has set the Reserve Ratio at 50%, how much new money will be created?

3) By the way, why might the Federal Reserve have changed the Reserve Ratio from 10% to 50%???
• Is credit good or bad for your personal finance?
• What are some factors that can affect your credit?
• Do you believe that owning a credit card is good or bad for you? What about 2 or 3?
Credit, Principal & Interest

- **Credit** – an agreement under which a buyer receives goods and services at the present time in exchange for a promise to pay for them at a future time

- **Interest** – the amount of money that a lender charges a borrower in exchange for the use of their money
  - The cost of credit is INTEREST
  - Always look at Interest Rate before taking out a loan, specifically the **APR** (annual percentage rate)
  - Interest Rates drive the economy (Remember That!!!)

- **Principal** – the original amount of money that has been borrowed
Credit and Debit Cards

• When you use a **credit card**, you are borrowing money from the credit issuers as a loan that you will pay back with interest

• **APR** is the *annual percentage rate* that shows the total cost of the loan, including compounding and other fees.

• Credit Card APR rates vary (usually 10%-20%) and can dramatically increase if you are late or miss a payment

• When you use a **debit card**, you are using your own money from your banking account, so there is no interest

• But remember that you must have the money in your bank account, or you could be penalized with bank fines
Which credit card should you choose to go with? And why is that?

<table>
<thead>
<tr>
<th>CREDIT CARD “A”</th>
<th>CREDIT CARD “B”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BALANCE</strong></td>
<td><strong>$10,000</strong></td>
</tr>
<tr>
<td><strong>INTEREST RATE</strong></td>
<td><strong>24.99%</strong></td>
</tr>
<tr>
<td><strong>MONTHLY PAYMENT</strong></td>
<td><strong>$293</strong></td>
</tr>
<tr>
<td><strong>PAYOFF PERIOD</strong></td>
<td><strong>5 YEARS</strong></td>
</tr>
<tr>
<td><strong>TOTAL INTEREST PAID</strong></td>
<td><strong>$7607</strong></td>
</tr>
<tr>
<td><strong>BALANCE</strong></td>
<td><strong>$10,000</strong></td>
</tr>
<tr>
<td><strong>INTEREST RATE</strong></td>
<td><strong>10.99%</strong></td>
</tr>
<tr>
<td><strong>MONTHLY PAYMENT</strong></td>
<td><strong>$217</strong></td>
</tr>
<tr>
<td><strong>PAYOFF PERIOD</strong></td>
<td><strong>5 YEARS</strong></td>
</tr>
<tr>
<td><strong>TOTAL INTEREST PAID</strong></td>
<td><strong>$3042</strong></td>
</tr>
</tbody>
</table>

What is the average household credit card debt as of 2016? How many credit cards per household?

$15,788 debt per household and 3.5 credit cards per household
Simple Interest
- is a rate that is applied only to the value of the principal (simple interest grows slowly)
  - Interest = Principal x Rate x Term (I = P x R x T)

Compound Interest
- is interest applied to both the principal and the interest (you pay interest on interest; so compound interest grows fast)
  - Interest = Principal x (1 + rate)^term – Principal
WHAT FACTORS AFFECT CREDIT WORTHINESS?

1) Credit History
   - **Debt** is the amount of money that you owe a lender from borrowing
   - **Credit score** is a number based on your history as a borrower; bad debt damages your credit score
   - **Credit worthiness** is when a lender uses your credit score to determine what type of loan you can receive
     - If your credit score is **high**, lenders will loan you money at a lower interest rate (740-850)
     - If your credit score is **low**, lenders will loan you money at a higher interest rate (599-499)

2) Job/Income
   - How much money you make determines loan amount
   - Must be able to prove that you have the ability to pay back the loan

3) Debt-to-Income Ratio – total monthly debt obligations / amount of total monthly income
   - Lower the number the better and it should never exceed 33
   - Amount you pay toward your debt shouldn’t exceed 33% of your monthly income; if so, you’ve over-extended yourself and are living above your means

4) Age
   - very young means you don’t have much of a credit history & very old means your ability to pay back the loan may be suspect

5) Education
   - The higher your education level, the more credit lenders make available to you
   - Remember the importance of investing in Human Capital???
SSEP4F4c) Riain decides to invest $10,000 over a 20 year period. Should he put his money in an investment that has a simple interest rate or compound interest rate?

a) Simple interest earns more because simple interest always has a higher rate.

b) He would earn the same amount, as these are different terms for the same thing.

c) Simple interest earns more because the interest is determined annually on the original amount.

d) Compound interest earns more because the amount on which interest is paid increases over time.
1. Define the terms: credit, debt, principal balance, interest
2. What is the cost of CREDIT?
3. What type of capital is money put into a business investment called?
4. When shopping around for a loan, you should always focus on ....?
5. What’s the 3 letter acronym for interest rate plus other attached fees?
6. Explain the difference between using a debit and credit card.
7. Which one is best for you? Why??
8. What’s the difference between simple and compound interest?
9. Which type of interest rate do you want if you’re taking out a loan? What about if you’re making a financial investment?
10. List 4 factors that impact one’s credit score.
11. What’s a good credit score? What about a bad credit score?
12. Name 10 counties in Georgia.
Taxes and Personal Finance

1. What group is most negatively affected by unanticipated inflation?

2. How does the federal government generate revenue?

3. What is the difference between progressive, proportional, and regressive tax structures?

4. What group is most negatively impacted by a sales tax? Why?
Facts to Know About Inflation
(Because its on the Milestone!!!)

- **Inflation** – general rise of all price levels
  (in other words, everything cost more!)

- Inflation decreases the purchasing power of the dollar, thus decreasing the value of the dollar (life becomes more expensive)

- Long periods of unanticipated inflation **favor Debtors** over Creditors

- Inflation has the **most negative impact on retirees living on a fixed income** (like social security)
  - Think, people on fixed incomes receive the same check amount, but now everything is more expensive for them to purchase
  - **COLA** (Cost of Living Adjustment) is designed to protect those living on a fixed income from anticipated inflation
What are the only 2 things guaranteed in this lifetime?

and
Taxes

• “No taxation without representation” – Patrick Henry
• "The only things certain in life are death and taxes“ – Ben Franklin
• "The hardest thing in the world to understand is the income tax“ – Albert Einstein
• "Give to Caesar what is Caesar's, and to God what is God's” – Jesus
• “The only two people that can take your money away are criminals and the government, and the impact is the same” – Bob McEwen
• “Read my lips, No New Taxes!” – President George H.W. Bush
Where Did Our Income Go?

- federal income tax
- state income tax
- property tax
- giving (tax-exempt)
- savings to Roth IRAs
- spending
Government Revenue and Fiscal Policy

- **Fiscal Policy** is the Gov’t (1) Taxing and (2) Spending (Know This!!!)
- **Tax** is a mandatory payment to a local, state, or national gov’t
- **Primary means of Gov’t Revenue is derived from TAXES!!!**
- 2 Principles of Taxation: (1) Benefits-Received vs. (2) Ability-to-Pay
- 3 Criteria for Taxes: (1) Equity (Fair), (2) Simplicity, and (3) Efficient
- **Taxable income** is the amount of income subject to taxation by the state & federal gov’t after exemptions & deductions
- **Incidence of a tax** is the final burden of that tax (impact of the tax on a taxpayer)
  - Ex: When gov’t taxes oil companies, the oil companies raise the prices at the gas pump, so consumers are the ones who actually pay the increased taxes
3 TAX STRUCTURES
3 Types of Tax Structures (Know These!)

- **Progressive Tax** – % of income paid in taxes increases as income increases
  - More you make, more they take, so wealthy bear the burden
- **Federal Income Tax**

- **Regressive Tax** – % of income paid in taxes decreases as income increases
  - More you make, less they take, so poor bear the burden
  - **Sales Tax**, Sin Taxes (Alcohol, Tobacco, Lottery), and **Excise Tax** on Gasoline

- **Proportional Tax** – % of income taxes remains the same for all income levels (some like to call it a Flat tax)
  - Everyone pays the same percentage
  - **Sales Tax** (Again!)
  - Usually also a Regressive Tax

- **Sales Tax** – a general state or city tax levied on a product at the time of sale
  - **Sales Tax affects lower income groups more than higher income groups, so it’s both a proportional and regressive tax**
Property Taxes

- **Property Taxes (millage rate)** – ad valorem tax paid on the value of a property (real estate) to the city/county for ownership

- Property **taxes** are mainly used by municipalities for repairing roads, building & funding public schools, and other public goods and services provided by the local gov’t

- Property taxes will vary from place-to-place and year-to-year based on estimated property values, wealth of the city or county, and needed or projected gov’t public projects
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Tax Incentives

- **Tax incentive** is the use of taxes to encourage or discourage certain economic behaviors, such as tax credits or rebates for buying hybrid cars, recycling, green energy companies, business moving into economically depressed neighborhoods, etc.

- **Sin taxes** are designed to raise revenue & lower consumption of a good or service the gov’t deems as harmful (alcohol & tobacco)
  - Sin taxes are usually regressive
Lesson EQ

Why is the individual federal income tax so important to fiscal policy, when was it enacted, and how is it collected?
Federal Individual Income Tax

• BIGGEST SOURCE OF FEDERAL TAXES are Individual Income Taxes (45%)

• 16TH AMENDMENT (1913) created the federal income tax (thanks President Wilson!)

• “Pay-as-you-Earn” – Payroll tax is deducted from a paycheck withholding before the worker receives it & sent to the IRS (INTERNAL REVENUE SERVICE)

• Tax returns are due by April 15th (form 1040 declares income & taxable income)

• Progressive Tax (“more you make, more they take!”)

• Indexing is a revision of tax brackets to prevent workers from paying more taxes due to inflation and keeps them from being pushed into a higher tax bracket
Progressive Federal Income Tax Bracket

<table>
<thead>
<tr>
<th>If Taxable Income Is:</th>
<th>The Tax Is:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - $12,750</td>
<td>10% of the taxable income</td>
</tr>
<tr>
<td>$12,751 - $48,600</td>
<td>$1,275 + 15% of the excess over $12,750</td>
</tr>
<tr>
<td>$48,601 - $125,450</td>
<td>$6,652.50 + 25% of the excess over $48,600</td>
</tr>
<tr>
<td>$125,451 - $203,150</td>
<td>$25,865 + 28% of the excess over $125,450</td>
</tr>
<tr>
<td>$203,051 - $398,350</td>
<td>$47,621 + 33% of the excess over $203,150</td>
</tr>
<tr>
<td>$398,351 - $425,000</td>
<td>$112,037 + 35% of the excess over $398,350</td>
</tr>
<tr>
<td>$425,001+</td>
<td>$121,364.50 + 39.6% of the excess over $425,000</td>
</tr>
</tbody>
</table>

**Tax bracket** – scheduled rate at which you are taxed based on your annual income  
**Marginal tax rate** – tax rate that applies to your last unit of currency  
**Taxable income** – person’s gross income minus exemptions & deductions  
**Exemptions** – set amounts subtracted from your gross income to reduce amount of taxable income  
**EX:** Personal exemptions & dependents ($3,800 for each exemption)  
**Deductions** – amounts that you can subtract from your gross income  
**EX:** Interest on home, student loan, charity, religious giving
SSEP3F3b) Most economists believe that a sales tax increase affects which group the MOST?

a) hourly workers
b) salaried workers
c) people with low incomes
d) people with the highest range incomes
1. What is fiscal policy?
2. What is the primary means of gov’t revenue?
3. Describe the 3 types of tax structures and give an example of each.
4. What type of tax structure(s) is a sales tax? Explain.
5. What type of tax structure is the individual income tax?
6. Who bears the greatest burden with sales taxes? What about income taxes?
7. What gov’t agency collects the income tax? How are income taxes collected? What is so important about April 15th? What is a 1040 form?
8. Define inflation. How does inflation impact the purchasing power of the dollar?
9. What group benefits the most from unanticipated inflation? Why?
10. What group suffers the most hardship from unanticipated inflation? Why?
11. List the top 10 most influential U.S. presidents in order from greatest to least.
Insurance

What are the various types of insurance, and how does insurance protect you from financial loss?
ACTIVATOR

1. What is the purpose of purchasing insurance?
2. Can you name a few types of insurance?
3. Do you believe that it is important to have health insurance? What about life insurance? Why or why not?
5 Types of Insurance

• **Insurance** – money paid to an insurance company for assurance that, if what they value is lost or damaged, the insurance company will pay for their loss

1. **Automobile** – covers cars (vehicles)
   • Costs-determined by the type of car, driver experience, driver age, driver’s education/grades, driver’s city of residence, mileage driven
   • Paid monthly, every six months, quarterly, or yearly
   • Different prices can be quoted by different car insurance companies. Shop around!

2. **Health** – covers doctor visits, prescriptions, and other medical costs
   • Costs-determined by the health coverage you pay for and choose
   • Paid monthly
   • Different prices determined by different plans for different services/copays/coverage

3. **Life** – covers someone’s life
   • Costs-determined by the age of the insured and amount to be paid at death
   • Paid premium monthly

4. **Disability** – covers income if you are unable to work
   • Costs-determined by salary, and benefit if you are out of work
   • Paid monthly premium

5. **Property** – covers property, land, homes
   • Costs-determined by how much the property is worth, credit score, and location
What are Premiums and Deductibles?

- **Premiums**: monthly payment for insurance
- **Deductibles**: dollar amount of expenses that must be paid out of pocket before an insurer will pay any expenses for loss or liability
  - If you pay a high premium then your deductible will be low
  - If you pay a low premium, then your deductible will be high
  - Which health insurance plan is best for you? Why?
SSEP5b) An insurance policy with a higher premium MOST LIKELY has
a) a lower deductible.
b) no liability limit.
c) a higher deductible.
d) a lower liability limit.
Importance of Human Capital

• Human Capital
  • Significance of Investing in education, training, and skill development
  • The more education/training the more money you will make
  • If you possess a skill no one else does, you will be able to command more money for that skill, and you will have job security

Earnings and unemployment rates by educational attainment

Unemployment rate in 2014 (%)

- Doctoral degree: 2.1%
- Professional degree: 1.5%
- Master’s degree: 2.8%
- Bachelor’s degree: 3.5%
- Associate’s degree: 4.5%
- Some college, no degree: 6.0%
- High school diploma: 6.0%
- Less than a high school diploma: 9.0%

Median weekly earnings in 2014 ($)

- Doctoral degree: $1,591
- Professional degree: $1,639
- Master’s degree: $1,326
- Bachelor’s degree: $1,101
- Associate’s degree: $794
- Some college, no degree: $741
- High school diploma: $668
- Less than a high school diploma: $488

What skills are needed to be successful in the workplace?

• Be on time/Punctual
• Reading/Writing Skills
• Manners/Social Etiquette
• Friendliness/Respectful
• Ability to work with others/Collaboration
• Good Work Ethic
• Education/Advanced Degrees

• Professionalism
• Volunteer/Go Above & Beyond
• Leadership Qualities
• Be positive
• Don’t gossip about co-workers or get into the habit of “bad-mouthing” your manager/boss
https://www.youtube.com/watch?v=8lPbkHVxenU
1. What is the purpose of purchasing insurance?
2. What are the 5 types of insurance?
3. What factors affect auto insurance?
4. What is the relationship between premiums and deductibles when purchasing health insurance?
5. How does life insurance work, and when might someone purchase a higher life insurance policy? Why?
6. What does disability insurance cover?
7. Explain the importance of purchasing property insurance? Give an example or two how it might help you out in real life.
8. What is human capital, and how does investing in human capital impact one in the work force?
9. List 8-10 skills that are needed to be successful in today’s work force.
10. Name your top 10 breakfast foods or dishes!