Managing Your Money Part 2: Using the MYFI Assist APP

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Key Concepts

• What is included in an interest rate
• Introduction to MyFi Assist app and how to use it
• Finding current interest rates in your area
• Effects of time and interest rates

Homework Assignment:
Keep track of your income and expenses
Interest Rates
Components of Interest Rates

If you want to buy a soda.....

- At a movie theater: $3-4
- At a gas station: about $1.20
- At a grocery store: about $0.60
- On sale at a grocery store: $0.30

Why did you pay more?
Components of Interest Rates

You wanted it NOW!

• If you are going to wait, you would need to be compensated.

• This is just like interest.

• You are willing to pay more to have it now.

• So in order for the bank to give you money now, you have to pay for it.

• Or in order for you to let someone else use your money now, they need to pay you.
Interest Rates

The three components are

- Time
- Inflation
- Risk

Time and inflation are the same for everyone.

Risk is the only factor that varies from person to person.
Interest Rates – Time

One component of an interest rate is time

• Someone is compensated for delaying the use of their money
• In the case of a loan, the bank is compensated
• In the case of savings, you are compensated
Interest Rates - Inflation

When I was your age...

• In 1950 a candy bar cost $0.05
• Was candy more or less expensive then?
• Just looking at the price we would say less expensive.
• However, inflation makes it more difficult to tell.
• Inflation means that everything becomes more expensive over time.
• Some things become more expensive faster, while others can be slower.
Inflation

• To find out the value of something in today’s dollars, use an inflation calculator.

• One is available at www.bls.gov: http://www.bls.gov/data/inflation_calculator.htm
Databases, Tables & Calculators by Subject

CPI Inflation Calculator

CPI Inflation Calculator

$ \underline{\quad} \\

in \underline{\quad} \rightarrow 1980 \\

Has the same buying power as:

in \underline{\quad} \rightarrow 2016 \\

Calculate

About this calculator
Mobile Browser? View full screen.

About the CPI Inflation Calculator

The CPI inflation calculator uses the average Consumer Price Index for a given calendar year. This data represents changes in prices of all goods and services purchased for consumption by urban households. This index value has been calculated every year since 1913. For the current year, the latest monthly index value is used.
Inflation

- If you delay the use of your money, it will buy less in the future.
- You need to be compensated for the effects of inflation.
- Inflation is another component of interest rate.
Databases, Tables & Calculators by Subject

CPI Inflation Calculator

CPI Inflation Calculator

$ 0.05
in 1950
Has the same buying power as:
$ 0.49
in 2016
Calculate

About this calculator
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About the CPI Inflation Calculator
The CPI inflation calculator uses the average Consumer Price Index for a given calendar year. This data represents changes in prices of all goods and services purchased for consumption by urban households. This index value has been calculated every year since 1913. For the current year, the latest monthly index value is used.
Databases, Tables & Calculators by Subject

CPI Inflation Calculator

CPI Inflation Calculator

$ 5.15
in 2000

Has the same buying power as:

$7.09
in 2016

About this calculator
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About the CPI Inflation Calculator

The CPI inflation calculator uses the average Consumer Price Index for a given calendar year. This data represents changes in prices of all goods and services purchased for consumption by urban households. This index value has been calculated every year since 1913. For the current year, the latest monthly index value is used.
Component of Interest Rates – Risk

• The bigger the risk (chance) of no repayment, the bigger the payout should be.
• You need to be compensated for the risk of lending through a bigger return.
• This happens through a higher interest rate.
• If you are a bigger risk, the bank may charge a higher interest rate if they lend money to you.
of campaign donations to many Utah politicians through the years.

A recent state report said payday loan companies in Utah last year charged an average 522.26% APR, or $10.02, for a $100 loan for seven days. The highest rate charged by a Utah payday lender last year was 2,607% APR, or $50, on a $100 loan for seven days.
Risk

• A credit score is a measure of risk.
• Find current interest rates for various loans
• There are places to check your credit score
Credit Scores vs. Interest Rates

<table>
<thead>
<tr>
<th>Credit Score</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>720-850</td>
<td>3.606%</td>
</tr>
<tr>
<td>690-719</td>
<td>5.008%</td>
</tr>
<tr>
<td>660-689</td>
<td>6.781%</td>
</tr>
<tr>
<td>620-659</td>
<td>9.265%</td>
</tr>
<tr>
<td>590-619</td>
<td>14.614%</td>
</tr>
<tr>
<td>500-589</td>
<td>16.978%</td>
</tr>
</tbody>
</table>

- Example rates by credit score for Arizona
- 60-month new auto loan

Source: MyFico.com
Practical Use

- What does all this really mean?
- Let’s put it into practice

MyFi Assist – an app for “My Financial Assistant”
- Free
- Available in IOS and Android
- Can be personalized to your situation

More information about the app and other materials are available at DiverseAg.org/Money
Input calves as the item of interest.

In this example, each calf is valued at $500.

What is the monthly payment of a truck bought for $30,000?

The interest on the loan is 6%, and there is no down payment.

Plan to pay the loan off in 4 years.
Personal Preferences – Ranch Example

- You would like to purchase a pickup and need to borrow $30,000 now. You will pay it off with monthly payments over 4 years. The interest rate is 6% annually.

- Use MyFi Assist, “Paying for a Loan”
  - Calculate the monthly payment
  - Calculate how many calves you would have to sell to make the truck payment.
  - What is the total you will pay for the pickup?
• The monthly payment for the truck is $705.
• 17 calves per year must be sold in order to make the truck payment.
• Can the business justify buying this truck?
• We will look at the effects of buying this truck using a sensitivity analysis, break-even analysis, and a partial budget.
• Being informed of your options is the most important component of making an educated decision.
• Don’t be pulled into the sales hype.
  • A salesman may sound like your best friend, but they are not.
• New Vs. Used
• How many more bales of hay or calves will you need to sell to cover it?
• Think about not just this decision but potential effect on other decisions.
What does that mean for how much you pay?

Borrow $20,000 for a truck

<table>
<thead>
<tr>
<th>Credit Score</th>
<th>Interest Rate</th>
<th>Monthly Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>720-850</td>
<td>4.31%</td>
<td>$454</td>
</tr>
<tr>
<td>690-719</td>
<td>6.03%</td>
<td>$470</td>
</tr>
<tr>
<td>660-689</td>
<td>8.57%</td>
<td>$494</td>
</tr>
<tr>
<td>620-659</td>
<td>11.37%</td>
<td>$520</td>
</tr>
<tr>
<td>590-619</td>
<td>17.08%</td>
<td>$578</td>
</tr>
<tr>
<td>500-589</td>
<td>19.32%</td>
<td>$601</td>
</tr>
</tbody>
</table>
What does that mean for how much you pay?

<table>
<thead>
<tr>
<th>Credit Score</th>
<th>Interest Rate *</th>
<th>Monthly Payment</th>
<th>Paid Each Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>720-850</td>
<td>4.31%</td>
<td>$454</td>
<td>$5,452</td>
</tr>
<tr>
<td>690-719</td>
<td>6.03%</td>
<td>$470</td>
<td>$5,640</td>
</tr>
<tr>
<td>660-689</td>
<td>8.57%</td>
<td>$494</td>
<td>$5,924</td>
</tr>
<tr>
<td>620-659</td>
<td>11.37%</td>
<td>$520</td>
<td>$6,246</td>
</tr>
<tr>
<td>590-619</td>
<td>17.08%</td>
<td>$578</td>
<td>$6,935</td>
</tr>
<tr>
<td>500-589</td>
<td>19.32%</td>
<td>$601</td>
<td>$7,216</td>
</tr>
</tbody>
</table>
How many calves do you have to sell?  (500 lbs at $2 per pound)

<table>
<thead>
<tr>
<th>Credit Score</th>
<th>Interest Rate *</th>
<th>Monthly Payment</th>
<th>Paid Each Year</th>
<th>Head of Calves</th>
</tr>
</thead>
<tbody>
<tr>
<td>720-850</td>
<td>4.31%</td>
<td>$454</td>
<td>$5,452</td>
<td>5.5</td>
</tr>
<tr>
<td>690-719</td>
<td>6.03%</td>
<td>$470</td>
<td>$5,640</td>
<td>5.6</td>
</tr>
<tr>
<td>660-689</td>
<td>8.57%</td>
<td>$494</td>
<td>$5,924</td>
<td>5.9</td>
</tr>
<tr>
<td>620-659</td>
<td>11.37%</td>
<td>$520</td>
<td>$6,246</td>
<td>6.2</td>
</tr>
<tr>
<td>590-619</td>
<td>17.08%</td>
<td>$578</td>
<td>$6,935</td>
<td>6.9</td>
</tr>
<tr>
<td>500-589</td>
<td>19.32%</td>
<td>$601</td>
<td>$7,216</td>
<td>7.2</td>
</tr>
</tbody>
</table>

Sell 32% more calves with bad credit.
What about the whole loan? (500 lbs at $2 per cwt)

<table>
<thead>
<tr>
<th>Credit Score</th>
<th>Interest Rate</th>
<th>Total Paid</th>
<th>Interest Paid</th>
<th>Head of Calves for interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>720-850</td>
<td>4.31%</td>
<td>$21,808</td>
<td>$1,808</td>
<td>1.8</td>
</tr>
<tr>
<td>690-719</td>
<td>6.03%</td>
<td>$22,560</td>
<td>$2,560</td>
<td>2.6</td>
</tr>
<tr>
<td>660-689</td>
<td>8.57%</td>
<td>$23,695</td>
<td>$3,695</td>
<td>3.7</td>
</tr>
<tr>
<td>620-659</td>
<td>11.37%</td>
<td>$24,982</td>
<td>$4,982</td>
<td>5.0</td>
</tr>
<tr>
<td>590-619</td>
<td>17.08%</td>
<td>$27,739</td>
<td>$7,739</td>
<td>7.7</td>
</tr>
<tr>
<td>500-589</td>
<td>19.32%</td>
<td>$28,865</td>
<td>$8,865</td>
<td>8.9</td>
</tr>
</tbody>
</table>
Example 2

- You want to pay off a credit card with a balance of $1,800. The interest rate on the credit card is 12%.

- If you were to make the minimum monthly payments of $25, how long would it take for you to pay it off?

- How long would it take to pay it off if you increased the monthly payments to $75?
Example 2 Cont.

• If you were to make the minimum monthly payments of $25, how long would it take to have you pay it off?
  • 128 months and $1,398 in interest on the original balance.

• How long would it take to pay it off if you increased the monthly payments to $75?
  • 28 months and $269 in interest on the original balance.
Paying Credit Cards

• The interest rate on a credit card and the amount paid each month will determine how long it will take to pay off a credit card.

• Use MyFi Assist “Pay Off Credit Card.”

• $1,200 owed and you will pay $50 each month

• How many months will it take if your interest rate is 5%, 10%, 15%, or 20%?
Paying Credit Cards

- Use MyFi Assist “Pay Off Credit Card.”
- $1,200 owed and you will pay $50 each month. You make $12 per hour.
- How many months will it take if your interest rate is
  - 5% - 25.3 months, work 106 hours
  - 10% - 27 months, work 112 hours
  - 15% - 28 months, work 120 hours
  - 20% - 31 months, work 129 hours
Paying Credit Cards

• Use MyFi Assist “Pay Off Credit Card.”
• $1,200 owed and you will pay $50 each month
  • 5% - 25.3 months, work 106 hours
  • 10% - 27 months, work 112 hours
  • 15% - 28 months, work 120 hours
  • 20% - 31 months, work 129 hours
• Assume the rate is 20% and you make the minimum monthly payment of $25
  • 97 months, work 203 hours
• Assume the monthly payment is $21
  • 184 months, work 322 hours
Paying for Home Loans

- MyFi Assist can also be used to look at home loans.

- The interest rate on a home loan does not vary as much as the interest rate on auto loans. Why?
  - The house provides collateral. With bad credit you may not get a loan, or the amount you can borrow will be significantly less.
  - Use “Paying for a Loan” to look at how much monthly payments would change with different interest rates and different down payment amounts.
Paying for Home Loans

• MyFi Assist can also be used to look at home loans.

• Use “Paying for a Loan” to look at how much monthly payments would change with different interest rates and different down payment amounts.

• Use “Pay Off Credit Card” to look at how making larger payments can reduce the amount of time to pay off the mortgage.
Take Home Message

• Lower credit scores mean higher interest rates.

• Higher interest rates means borrowing will cost you more.
  • You will have to work more hours to pay for it

• If you make smaller credit card payments, it will take you longer to pay the balance off and you will end up paying more.
Thank you!