LESSON 10: INTRODUCTION TO FINANCE

Focus Question: How do businesses finance their operations?

Objectives

Students will be able to:

- Compare and contrast short-, intermediate-, and long-term financing.
- Discuss the connection between personal saving and financing for business.
- Analyze the yield curve and explain what it tells us about the cost of short-, intermediate-, and long-term financing.
- Examine what the yield curve reveals about the future direction of the economy.

Standards

NES: 10, 12, 14, 15
ELA:.1,2,3

Materials

Text, pp. 262-275.

Teaching Strategies

Introduction:

- Distribute Worksheet 10A, "Obtaining Financing." For homework, have students complete the exercise on the worksheet. As part of the whole-class discussion, have students explain their answers to the following:
  - — What did you learn about business financing from this exercise?
  - — Describe the kinds of short-term financing you mentioned in your memo. Describe the kinds of intermediate-term financing you mentioned in your memo. Describe the kinds of long-term financing you mentioned in your memo.
  - — Under what conditions would issuing stock be a more desirable method of financing than borrowing, through issuing bonds, and vice-versa?
  - — What questions does this worksheet raise for our class discussion?

Body of lesson:

- Distribute Worksheet 10B, "Financing Chart." Have students complete the exercise on the worksheet. Then have them explain their answers to the following:
  - — In your own words, explain the chart.
  - — What does this chart tell us about how businesses like our VE business obtain money for financing?
  - — Based on what we learn from the chart, should we be concerned that Americans have one of the lowest savings rate in their history?
- Distribute Worksheet 10C, "Yield Curve: The Cost of Financing Over Time." Have students complete the exercise on the worksheet. Then have them explain their answers to the following:
  - — What do we learn about the costs of borrowing over different periods of time from this chart?
  - — How can you explain why it costs more to borrow for longer periods of time than shorter periods?
  - — Under what conditions would interest rates be higher for shorter than longer periods of time?
- Distribute Worksheet 10D, "Yield Curve: Signs for the Economy." Have students complete the exercise on the worksheet. Then, as part of the whole-class discussion, have the class explain their answers to the following:
  - — What do we learn about the yield curve from this worksheet?
  - — How does this worksheet explain how the shape of the yield curve indicates the future direction of the economy?
  - — Based on the shape of the yield curve today, in what direction do you think the economy is going?
  - — How might what we learned about the yield curve on this worksheet help us in running our VE business?

Summary/Assessment:

Invite a representative from an investment banking firm like Citibank, Deutsche Bank, or Goldman Sachs (there are many others) to the class to talk about how an investment banker helps businesses with their financing. Have students do research beforehand on the work of investment bankers and the specific firm who is sending a representative to your class. Have each student prepare three questions to ask about how investment bankers work with businesses to obtain financing.

Worksheet 10A

Obtaining Financing

Any start-up business needs considerable financing. Assume that you are the Chief Financial Officer for your VE company. You have been assigned the task of obtaining a total of $1,000,000 in financing for your company. This total consists of $200,000 in short-term financing (for start-up costs for the first year); $300,000 in intermediate-term financing (for business expansion expenses of 1-10 years); and $500,000 in long-term financing (for new initiatives, maintenance of equipment, and new technology beyond 10 years). Read the following information and write a one-page memo suggesting two options each for short-, intermediate-, and long-term financing. In addition to the information below, you may use the Internet, the business section of the newspaper, or speak with a local businessperson.

1. Short-term financing. This kind of financing can come from family and/or friends, trade credit (where the start-up firm takes possession of goods that it needs immediately and pays for them at some future date, usually paying a small amount of interest), a bank loan for a specific project, or a line of credit (the maximum amount of money a business can borrow from a bank, usually for funding a variety of expenses).

2. Intermediate-term financing. This kind of financing is usually of two kinds—intermediate-term bank loans that have repayment periods of from 1-10 years and leasing—meaning renting equipment, building space, and tools instead of buying them.

3. Long-term financing. This is generally of two types: bonds (loans in which a company promises to pay a stated rate of interest over a stated period of time, and to repay the full amount borrowed at the end of that time) and stocks (called equity financing by which a company sells part ownership to others called shareholders in return for a share in the profits of the company). Long-term financing is for periods of longer than 10 years.

To: **CEO**

From: **Finance Dept.**

Subject: **Start-up Financing**

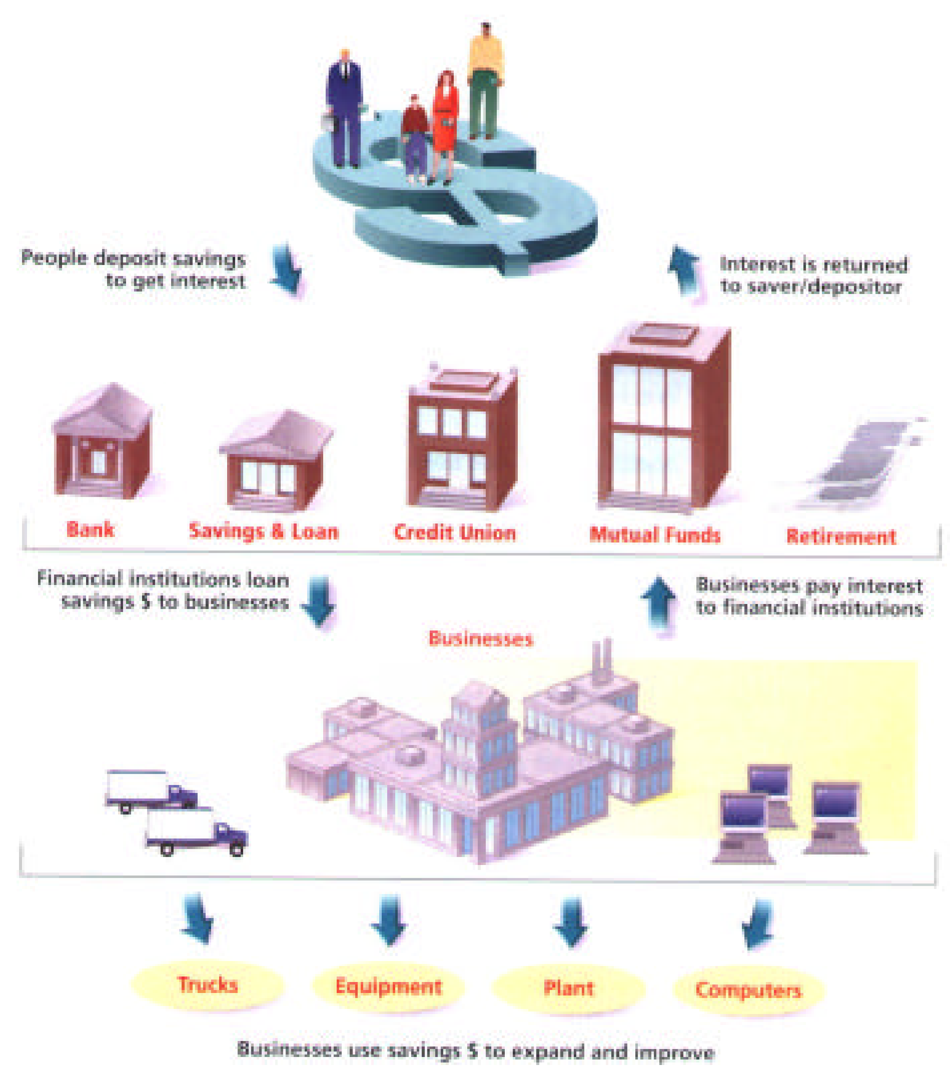
Worksheet 10B

Financing Chart

Exercise. *Study the chart below and create a title for it. Write the title in the space provided.*

TITLE:

Businesses are able to obtain financing because you and other income earners do not spend all that you earn during a year. Through saving, you and others who save make resources available to finance business expansion in the United States.



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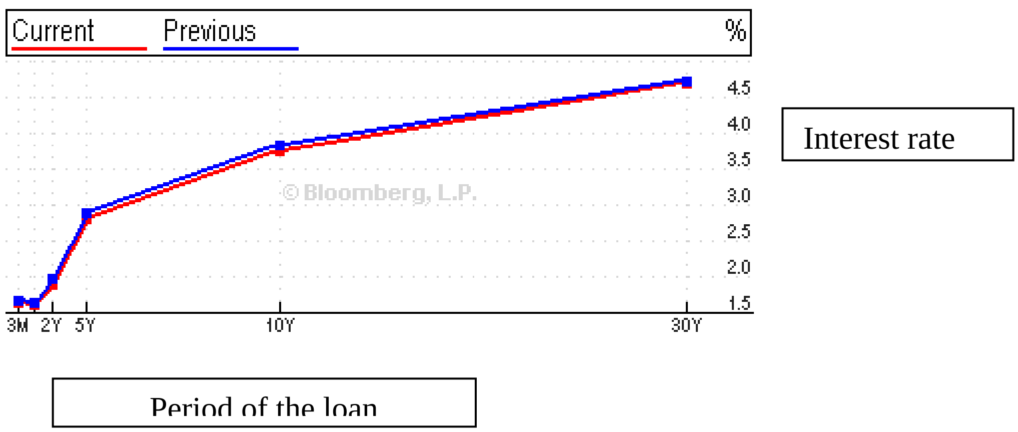
Roger LeRoy Miller, *Economics: Today and Tomorrow* (Columbus, Ohio: Glencoe McGraw-Hill, 2001), p. 264. Permission pending.

Worksheet 10C

Yield Curve: The Cost of Financing Over Time

Quite often, businesses obtain financing by borrowing money. Borrowing money has a cost. This cost is called interest—the price that a borrower pays for using somebody else's money. Interest rates are expressed in percentages per year. Generally, the longer the term of the loan, the higher the interest rate, because the lending institution is being denied access to its funds for an extended period. Also, the longer the term of the loan the greater the risk of inflation reducing the purchasing power of the loan repayment.

Exercise. *We can compare interest rates on loans for different periods of time (Y = years) through a* ***yield curve*** *like the one below. Study this yield curve, then answer the questions below.*



1. The scale on the bottom of this yield curve represents ________________________ .

2. The scale on the right hand side of this yield curve represents __________________ .

3. Approximately, what is the interest rates for a loan of

one year? _________ .

ten years? ________ .

thirty years? ______ .

3. Explain the reasons why interest rates vary on loans for different periods of time.

Worksheet 10D

Yield Curve: Signs for the Economy

We can learn a lot about how well the economy is doing by studying the shape of the yield curve. This page shows the four possible shapes of the yield curve and what experts say each yield curve shape tells us about where the economy is going. Study this worksheet then complete the exercise below.

Yield curve shape: Normal—This shape is characterized by a chart that slopes gently upward, meaning borrowers will pay higher interest rates on loans for longer periods. **Experts say:** This shows that the economy is performing about average. Lloyd has graphic, "Yield Curve 1 that should be placed here.	**Yield curve shape: Steep—**This shape is characterized by a chart that slopes sharply upwards. The difference between the lowest and highest interest rates is more than three percentage points, meaning borrowers will pay a lot higher interest rates on loans for longer periods. **Experts say:** This shows that the economy will improve quickly in the future. Very often the yield curve has this shape at the beginning of an economic expansion. Lloyd has graphic, "Yield Curve 2 that should be placed here.
Yield curve shape: Inverted—This shape is characterized by a chart that slopes lower for loan of longer that shorter periods. **Experts say:** This shows that the economy will be getting worse in the future. People who lend money will settle for a lower interest rate now, if they think the economy and interest rates are going lower in the future Lloyd has graphic, "Yield Curve 3 that should be placed here.	**Yield curve shape: Flat—**This shape is characterized by a chart that hardly slopes at all, meaning interest rates are about the same for loans of shorter and longer periods. **Experts say:** This shows that the economy will be getting worse in the future. General this is the shape of the yield curve prior to becoming inverted. Lloyd has graphic, "Yield Curve 4 that should be placed here.

Worksheet 10D, "Yield Curve: Signs for the Economy"

Exercise. Access the following web-site:

www.smartmoney.com/onebond/index.cfm?story=yieldcurve

Click on the "Play" button at the bottom of the chart. The chart will continue changing until it says "Latest," meaning the most current yield. In the space below explain your answers to the following questions:

1. What is the shape of the Latest yield curve?

2. Based on the shape, how would you predict where the economy is going? Explain.