Taking Risks: An investment game set in the Netherlands during its Golden Age

Grades: 9-12
Teacher: Jamie Sandberg
Contact: jsandber@alexandria.k12.mn.us

Runestone Regional Learning Center (RRLC)
Runestone Area Education District 6014
Alexandria, MN

Classroom and Lesson Overview

The Runestone Regional Learning Center is an alternative public high school setting in Alexandria, Minnesota. Students engage in both independent study programming and small group instructional opportunities called “core classes.” This lesson is designed for delivery during core class instruction. Students are in grades 9-12 and are earning instructional units in global studies, world history, U.S. history, or economics. The majority of my students qualify for free and reduced lunch. A high percentage qualify for special education services (both academic and behavioral needs).

This activity is an investment game. Some math is required. Students must choose between investment options available to wealthy citizens of the Netherlands during the 1600’s (bank, joint stock company involved in North Sea trade routes, joint stock company involved in the East Indies spice trade, or tulip bulb speculation). During round one, students must invest all of their 1000 florins. During rounds 2 and 3, they may hold back up to 25% of their holdings for land reclamation, spending, or cash reserves. The game involves 3 rounds of play/investment.

I have chosen the Netherlands because the financial markets of the Netherlands including the Amsterdam Stock Exchange developed early (established by the Dutch East India Company). Some of the people who became wealthy as a result became speculators in the Great Tulip Boom (and Bust) of the 1630s. Piracy, plagues, wars with England (which spilled into the new world colonies), changes in supply and demand, shipwrecks, and the eventual decision by the Dutch to give up the colony of New Amsterdam to the British in exchange for Run Island (a Spice Island) are all a part of the historic landscape (and causes for increased risk for some investments).

Students must consider changing world events and the impact of those events on the level of risk. Students may invest all of their wealth in a single venture or divide between investments. Students are asked to explain their choices and analyze the results during each of three rounds. The teacher provides additional information about changing world events between rounds. Round one is set in 1635, well after the founding of the Amsterdam Stock Exchange (1602). Round two is set during March of 1637 (collapse of Tulip Speculative market). Round three is set in 1652 (second Anglo-Dutch War). Ultimately the role of the dice determines the outcome of investments, with riskier investments requiring an increasingly lucky role of the dice for a payoff. The goal of students is to invest wisely in the financial markets. Some will prosper. Others may end up in a workhouse or debtors prison.

Both land reclamation and taxes were significant features of the economy of the Netherlands during its Golden Age. Both are introduced during the game. Taxes are a feature of the final tally.
Appropriate Grade Level and Time Required

9-12, 2-3 class periods

Learning Objectives:

• Given a list of investment options, students will analyze the options, make choices, and explain those choices.
• Student choices will demonstrate an understanding of the relationship between rate of return and risk.
• Student choices will demonstrate an understanding of the relationship between rate of return and shifts in supply and demand.
• Student choices and explanations will demonstrate an understanding of the role of diversification in managing risk.
• Student choices and explanations will demonstrate an understanding of the impact world events have on trade and the financial markets by linking world events to specific investment choices.

Economic Concepts Explicitly Covered in Activity

• Financial Markets
• Financial Investment
• Rate of Return
• Risk
• Speculation
• Diversification of investment

MN Economic Standards

Grade 9-12
Personal Finance
Personal & financial goals can be achieved by applying economic concepts and principles to personal financial planning, budgeting, spending, saving, investing, borrowing and insuring decisions.
9.2.2.2.2 Evaluate investment options using criteria such as risk, return, liquidity, and time horizon; evaluate and apply risk management strategies in investing and insuring decisions.

Grade 9-12
Microeconomic Concepts
Resource markets and financial markets determine wages, interest rates and commodity prices
9.2.4.7.2 Explain the role of financial institutions and credit markets in the acquisition of capital.

Materials Needed:

• Smartboard presentation and equipment (or equivalent)
• 3 die for each group
• Investment sheets for each student (3 rounds; see next 3 pages — also imbedded in presentation)
• Pencil with eraser for each student
• Calculators as needed (skill set; IEP accommodation)
Taking Risks: Round One  

Name: ______________________

As the game progresses, consider the world events discussed in class. These events will change the level of risk. Think about your options, the risks, the rate of return, and your goals (increase wealth, avoid bankruptcy, provide financial security for family).

Fill in column one on the investment table. Invest in 100 Florin increments. BEFORE rolling the dice, answer questions 1-6.

<table>
<thead>
<tr>
<th>Investment Opportunity</th>
<th>Expected Rate of Return</th>
<th>Risk Level</th>
<th>Amount Invested</th>
<th>Profit or Loss</th>
<th>Actual Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td>5% (x .05)</td>
<td>low risk</td>
<td>_______</td>
<td>_______</td>
<td>_______</td>
</tr>
<tr>
<td>North Sea Trade</td>
<td>20% (x .2)</td>
<td>medium risk</td>
<td>_______</td>
<td>_______</td>
<td>_______</td>
</tr>
<tr>
<td>East Indies Spice</td>
<td>200-400% (x 2 or 3 or 4)</td>
<td>high risk</td>
<td>_______</td>
<td>_______</td>
<td>_______</td>
</tr>
<tr>
<td>Tulip Bulbs</td>
<td>2000% (x 20)</td>
<td>very high risk</td>
<td>_______</td>
<td>_______</td>
<td>_______</td>
</tr>
</tbody>
</table>

Total __________

1. Which of the following best describes your EXPECTED rate of return for round one?  
a. Less than 20%  
b. About 20%  
c. 200-300%  
d. 500% or more

2. How would you describe your level of RISK (low, medium, high, very high)? ___________________________

3. Would you describe your investments as concentrated or diversified? ______________________ Explain: _________

4. Where did you invest the greatest amount of money? ________ Why? _____________________________

5. Where did you invest the least amount of money? ________ Why? _____________________________

6. List 3 or more world events that are likely to affect your rate of return (in the 1600s).
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

Roll the Dice and Fill in the remaining columns on the investment table. Then answer questions 7 and 8.

7. What was your total at the end of round one? _________________ Did any of your investments lose money? ______
   Any gains? ______

8. Was there anything specific about world events that you FAILED to consider or take seriously enough? ______
   If yes, what? __________
Taking Risks Round Two

Name: ___________________________

Consider the world events discussed in class. Think about your options, the risks, the rate of return, and your goals (increase wealth, avoid bankruptcy, provide financial security for family).

You make hold back up to 25% of your wealth for other uses (land reclamation, taxes, living expenses, etc.). Fill in column one on the investment table. Invest in 100 Florin increments. BEFORE rolling the dice, answer 9-15.

<table>
<thead>
<tr>
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<th>Actual Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td>5%</td>
<td>low risk</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
</tr>
<tr>
<td>North Sea Trade</td>
<td>20%</td>
<td>medium risk</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
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<tr>
<td>East Indies Spice</td>
<td>200–400% (x 2 or 3 or 4)</td>
<td>high risk</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
</tr>
<tr>
<td>Tulip Bulbs</td>
<td>2000%</td>
<td>very high risk</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
</tr>
</tbody>
</table>

Total Invested __________ + Amount Held Back __________
Amount Held Back __________ Total __________

9. Which of the following best describes your EXPECTED rate of return for round two?
   a. Less than 20%
   b. About 20%
   c. 200-300%
   d. 500% or more

10. How would you describe your level of RISK (low, medium, high, very high)? __________________________ How does your level of risk compare to round one (same, higher, lower)? __________________________

11. Would you describe your investments as concentrated or diversified? __________________________ Explain.

   ______________________________________________________________________________________
   ______________________________________________________________________________________

12. Where did you invest the greatest amount of money? __________ Why? ____________________________

   ______________________________________________________________________________________

13. Where did you invest the least amount of money? __________ Why? ____________________________

   ______________________________________________________________________________________

14. List 3 or more world events that are likely to affect your rate of return (March, 1637).

   ______________________________________________________________________________________

15. Did you withhold any of your funds from investment in the listed options? __________ Why or why not? __________

   ______________________________________________________________________________________

Roll the Dice. Fill in the remaining columns on the investment table (previous page). Then answer questions 16 and 17.

16. What was your total at the end of round two? __________ Did any of your investments lose money? __________

   Any gains? __________

17. Was there anything specific about world events that you FAILED to consider or take seriously enough? __________

   If yes, what? If no, tell about others in the class who did fail to notice world events. ________________________________________________________________________________
Taking Risks: Round Three

Consider the world events discussed in class and the timeline. You make hold back up to 25% of your wealth for other uses (land reclamation, taxes, living expenses, etc.). Fill in column one on the investment table.

<table>
<thead>
<tr>
<th>Investment Opportunity</th>
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<th>Risk Level</th>
<th>Amount Invested</th>
<th>Profit or Loss</th>
<th>Actual Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td>5% (x 0.05)</td>
<td>low risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Sea Trade</td>
<td>20% (x 0.2)</td>
<td>uncertain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Indies Spice</td>
<td>200-400% (x 2 or 3 or 4)</td>
<td>high risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tulip Bulbs</td>
<td>2000% (x 20)</td>
<td>very high risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Invested</strong></td>
<td></td>
<td></td>
<td><strong>Total Invested</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Amount Held Back</strong></td>
<td></td>
<td></td>
<td><strong>Amount Held Back</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtract Taxes</strong></td>
<td></td>
<td></td>
<td><strong>Subtract Taxes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. Which of the following best describes your EXPECTED rate of return for round three?
   a. Less than 20%
   b. About 20%
   c. 200-300%
   d. 500% or more

19. How would you describe your level of RISK (low, medium, high, very high)? How does your level of risk compare to round one (same, higher, lower)?

20. List 3 or more world events that are likely to affect your rate of return in the year 1652.
   ___________________________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________

21. Did you withhold any of your funds from investment in the listed options? Why or why not?
   ___________________________________________________________________
   ___________________________________________________________________

Roll the Dice and Fill in the remaining columns on the investment table. Then answer questions 22 and 23.

22. What was your total at the end of round three? Did any of your investments lose money? Any gains?

23. Was there anything specific about world events that you FAILED to consider or take seriously enough? If yes, what? If not, tell describe a choice made by someone else who failed to consider world events.

24. Did you meet the GOALS of this game (increase wealth, avoid bankruptcy, provide financial security for yourself and family)? Explain.

25. This was a game. List 3 "lessons" from the game that offer real life advice for someone investing money in today's financial markets. Talk it over in your small group.
Procedure

This content has been prepared in Smartboard format, but is being submitted for review as both PDF and Powerpoint.

The lesson is designed to be presented slide by slide to students.
The teacher should read or summarize the information on each page.
The teacher should allow for student responses to each question.
The teacher should contribute to the discussion and provide definitions as needed.
Taking Risks is designed to be completed in 2-3 class periods. The final 3 slides are included for enrichment (3rd day).

Continue slides 8-31 for remaining procedures.

Evaluation

• Given a list of investment options, students will analyze the options, make choices, and explain those choices. (Accomplished in rounds 1, 2, and 3 during the investment phase. All students filled out the worksheet appropriately. Some math errors occurred.)
• Student choices will demonstrate an understanding of the relationship between rate of return and risk. (Accomplished using questions 4, 5, 12, and 13.)
• Student choices will demonstrate an understanding of the relationship between rate of return and shifts in supply and demand. (Accomplished using questions 4, 5, 12, 13, 8, 17, 23, and group discussions at the end of each round.)
• Student choices and explanations will demonstrate an understanding of the role of diversification in managing risk. (Accomplished as students compared strategies and results after round 1; By round two all students were diversifying. Documented in student answers to items 3 and 11.)
• Student choices and explanations will demonstrate an understanding of the impact world events have on trade and the financial markets by linking world events to specific investment choices (Accomplished using questions 6, 14, 20, and 25.)
WELCOME to the Netherlands during its economic Golden Age: the 1600s. It was a time of shipbuilding, exploration, land reclamation, agriculture, and economic opportunity. What do these maps show?
Bankers and money changers have been around for a very long time, but the Amsterdam Stock Exchange is considered to be the FIRST and OLDEST in the world. It was founded in 1602 by the Dutch East India Company. Their goal was to attract the capital needed for further expansion by issuing public shares in the company. Selling shares allowed the Dutch East India Company to share the risks. Many fortunes were made and lost as a result.

Questions for discussion:
WHY did the Dutch East India Company decide to sell shares to the public? How did the East India Company benefit?
How did investors benefit? How did consumers benefit?
What is a Financial Market?
Who uses the Financial Market?
How do financial markets affect the economy?
How much RISK are you willing to take?
What is the difference between investing and speculating?
Is Speculation really just gambling?
How do investors minimize their risks?
What is diversification?
Imagine that you are a wealthy citizen of the Netherlands in the 1600s. Florins are the local currency. One suit of clothes is worth 80 florins. One thousand pounds of cheese can be bought for 120 florins, a silver cup for 60. But, you are NOT shopping. You have 1,000 florins to invest. You can choose among four investments:

• **Put your florins in a bank.** The banker will pay you 5% interest. Bank deposits were not insured as they are in the United States today, but your banker has a good reputation, and you feel that your money is safe with him.

• **Buy shares in a joint-stock company that exports goods to England and brings back English goods to be sold in the Netherlands.** This venture is relatively safe, but there is a chance that the ship might sink, or that the profits of trading will be lower than expected. The joint-stock company expects to make a profit of at least 20 percent.

• **Buy shares in a joint-stock company that is sending a ship to the Spice Islands.** The journey over open seas is dangerous and the ship might very well be lost to storms or pirates. There are frequent attacks by bandits during the overland portion of the journey. If the venture succeeds, the joint-stock company may make a profit of three or four hundred percent.

• **Buy tulip bulbs.** Yesterday an acquaintance of yours sold a rare tulip bulb for 20 times (2000%) what he had paid for it only a month before. Is it too good to be true?

Would you trust the man on the far right with your hard earned florins?

You may divide your investment if you like (100 florin increments).

GOALS: Become the wealthiest investor in the room. Avoid ending up in a debtors prison. Build financial security for yourself and family. If you become bankrupt, you will go to prison.

As the game proceeds, PAY ATTENTION to the NEWS. World events WILL result in INCREASED risks for investors!

Painting: Detail from *The Miser*, 1548-1551 - Follower of Marinus van Reymerswaele, Royal Collection Trust (c) 2012, Her Majesty Queen Elizabeth II
Divide the class into small groups. 
Each group will have a set of 3 dice. 
EACH student will fill in the worksheets. 
Students should have access to calculators as needed. 
Review the column HEADINGS. 

As the game progresses, consider the world events discussed in class. These events will change the level of risk.

Think about your options, the risks, the rate of return, and your goals (increase wealth, avoid bankruptcy, provide financial security for family). The year is 1635.

Fill in **column one** on the investment table. 
Invest in 100 Florin increments. 
BEFORE rolling the dice, answer questions 1-6 (following page/slide).

<table>
<thead>
<tr>
<th>Taking Risks: Round One</th>
<th>Name: __________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment Opportunity</strong></td>
<td><strong>Expected Rate of Return</strong></td>
</tr>
<tr>
<td>Bank</td>
<td>5% (x .05)</td>
</tr>
<tr>
<td>North Sea Trade</td>
<td>20% (x .2)</td>
</tr>
<tr>
<td>East Indies Spice</td>
<td>200-400% (x 2 or 3 or 4)</td>
</tr>
<tr>
<td>Tulip Bulbs</td>
<td>2000% (x 20)</td>
</tr>
<tr>
<td><strong>Total 1000.</strong></td>
<td><strong>Total __________</strong></td>
</tr>
</tbody>
</table>

Return to the previous page, and allow students to REVIEW the list of risks associated with each investment. 
You must invest ALL of your florins during round one.
Do you consider ANY of the investment categories to be SPECULATION?

1. Which of the following best describes your EXPECTED rate of return for round one
   a. Less than 20%
   b. About 20%
   c. 200-300%
   d. 500% or more

2. How would you describe your level of RISK (low, medium, high, very high)? ______________________

3. Would you describe your investments as concentrated or diversified? ______________________ Explain. ______ 
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________

4. Where did you invest the greatest amount of money? ___________ Why? ____________________________
   ____________________________________________________________________________________________

5. Where did you invest the least amount of money? ___________ Why? ____________________________
   ____________________________________________________________________________________________

6. List 3 or more world events that are likely to affect your rate of return (in the 1600s).
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________

Roll the Dice and Fill in the remaining columns on the investment table. Then answer questions 7 and 8.

7. What was your total at the end of round one? _____________________ Did any of your investments lose money? ______ Any gains? ______

8. Was there anything specific about world events that you FAILED to consider or take seriously enough? ______
   If yes, what? ________________________________________________________________________________
EACH small group will Roll of the dice one investment at a time. Each member of the group should record the impact of the roll on his/her investment. When all groups have completed the Bank investment, roll for the North Sea Trade, and so on.

(Round One)

Bank
Low risk:
Roll two die.
Your money is safe unless you roll two of a kind.
If you roll two of a kind in threes, fours, fives or sixes, you have lost half of your investment.
If you roll two of a kind in ones or twos, you have lost all of your investment. Your banker has gone bankrupt.

North Sea Trade
Medium risk:
Roll two die.
Your investment has returned the expected profit, unless you roll two of a kind.
If you roll two fives or sixes, you lost a portion of your shipment to water and rot. You have earned no profit (nor loss).
If you roll two of any other kind, you have lost all of your investment.

Spice Trade
High risk:
Roll three die.
If the TOTAL on the die is 13 or LESS, you have earned 400% profit.
If the TOTAL is 14 or 15, you have earned 300% profit.
If the TOTAL is 16 or higher, you have lost everything to thieves and cut-throats at supply stations enroute. The captain was killed and the crew joined other ships.

Tulips
Very High risk (round one):
Roll two die.
If the TOTAL number is 7 or higher, you have lost your entire investment.
If the number TOTAL number is 6, you have lost half of your investment.
If the TOTAL number is 5 or lower, you have 20 times the amount you originally invested.
Finish your investment sheets, and answer the remaining questions.

Assist one another as needed; ask for help as needed.

How did you do? (Discuss as a class.)

Watch the time. This may be a good place to end day one.

If there is time, continue. OR, ask about current world events that may be affecting the financial markets.

On day two, REVIEW using Slide 10 which is REPEATED on the next page.
***REVIEW ***
Imagine that you are a wealthy citizen of the Netherlands in the 1600s. Florins are the local currency. One suit of clothes is worth 80 florins. One thousand pounds of cheese can be bought for 120 florins, a silver cup for 60. But, you are NOT shopping. You have 1,000 florins to invest. You can choose among four investments:

• **Put your florins in a bank.** The banker will pay you 5% interest. Bank deposits were not insured as they are in the United States today, but your banker has a good reputation, and you feel that your money is safe with him.

• **Buy shares in a joint-stock company that exports goods to England and brings back English goods to be sold in the Netherlands.** This venture is relatively safe, but there is a chance that the ship might sink, or that the profits of trading will be lower than expected. The joint-stock company expects to make a profit of at least 20 percent.

• **Buy shares in a joint-stock company that is sending a ship to the Spice Islands.** The journey over open seas is dangerous and the ship might very well be lost to storms or pirates. There are frequent attacks by bandits during the overland portion of the journey. If the venture succeeds, the joint-stock company may make a profit of three or four hundred percent.

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Would you trust the man on the far right with your hard earned florins?

You may divide your investment if you like (100 florin increments).

GOALS: Become the wealthiest investor in the room.  
Avoid ending up in a debtors prison.  
Build financial security for yourself and family.  
If you become bankrupt, you will go to prison.

As the game proceeds, PAY ATTENTION to the NEWS. World events WILL result in INCREASED risks for investors!

Painting: Detail from *The Misers*, 1548-1551 - Follower of Marinus van Reymerswaele, Royal Collection Trust (c) 2012, Her Majesty Queen Elizabeth II
Background information AND Investment "News":
The 1600s were the Golden Age for the Netherlands. The Dutch had an ample supply of cheap energy, windmills and peat (for burning). Amsterdam was a financial center. Dutch merchant vessels dominated trade between several European countries. England and the English colonies were strong trade partners through 1648. The Dutch East India Company had a strong presence in the Spice Islands. The city of New Amsterdam in the colony of New Netherlands gave the Dutch an important presence in North America (New Netherlands would eventually become a British colony, New York). Wet lands were drained and reclaimed as farmland. Art flourished. Taxes were collected. The economy grew. As competition over the spice trade increased, prices fluctuated. Increased supplies led to lower market prices (less profit). There was an advantage to having the FASTEST ships; the first ships arrived when supply was LOW and demand was HIGH. Delays at sea could be costly. A good captain knew the tides, and currents, and seasons...
So What’s Up with Spices?

Have you ever given much thought to the cinnamon on your toast in the morning?

What about the black pepper on your family’s dining room table? Fast-food restaurants have packets of the stuff laying out for anyone to take.

Spices such as pepper and cinnamon are the fruit, seeds, bark, or roots of a plant.

Herbs, such as oregano and rosemary, are the leaves of the plant.

Spices such as cinnamon, nutmeg, and black pepper are very common.

500 or 600 years ago, spices were a lot more valuable than they are today.

At various times in history, spices were worth more than their weight in gold or silver.

Spices were so valuable that people were willing to risk their lives on dangerous expeditions to find these valuable commodities. Others stayed at home, but risked their fortunes.
At times, spices have been used like money.

Ancient Rome:
   Merchants could pay their rent in peppercorns.
   Roman Senators paid off the Visigoths with 3,000 pounds of pepper to halt an invasion (408 C. E.)
   A pound of cinnamon leaves sold for the equivalent of 6 months pay.
   Rome's annual trade deficit with India and China for spices was equal to 10 tons of gold.

Ancient Egypt
   Some Egyptian Pharaohs were buried with peppercorns in their noses to show off how rich they were in the afterlife.
Economic History

- Netherlands in the 1600s
- Many wealthy people with money to invest
- Value of rare tulip bulbs began to rise rapidly
- People began to BUY rare bulbs believing they could sell them at a high profit.
- They were “speculating” in tulip bulbs.
- In February of 1637, a single rare bulb sold for TEN TIMES the income of a SKILLED worker!
- Tulip prices rose so high that buyers dropped out of the market.
- The Tulipmania BUBBLE Burst!
- Sellers hurried to sell their bulbs, prices fell, panic selling resulted, bulbs became nearly worthless.
- Many who had speculated in tulip bulbs were ruined financially.

Speculation is RISKY. Is it a form of investing? or a form of Gambling?

Above painting: Jan Brueghel the Younger, Satire on Tulip Mania, 1640
It is time for Round Two of investing!
It is now MARCH, of 1637.
Will you risk any of your money on the Spice Trade?
Will you buy a rare striped tulip (Stripes were the result of a mosaic virus.) and turn a quick profit?

Taking Risks: Round Two

Consider the world events discussed in class on the previous pages.
Think about your options, the risks, the rate of return, and your goals (increase wealth, avoid bankruptcy, provide financial security for family).

You make hold back up to 25% of your wealth for other uses (land reclamation, taxes, living expenses, etc.).
Fill in column one on the investment table.
Invest in 100 Florin increments.
BEFORE rolling the dice, answer 9-15.

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</tr>
</tbody>
</table>

Total Invested + Amount Held Back = Total

Amount Held Back

Total

May 11-1:14 PM
Taking Risks: Round Two

AFTER students have filled out items 9-15, ask for volunteers to share what they wrote for number 14. Allow discussion time.

9. Which of the following best describes your EXPECTED rate of return for round two?
   a. Less than 20%
   b. About 20%
   c. 200-300%
   d. 500% or more

10. How would you describe your level of RISK (low, medium, high, very high)? How does your level of risk compare to round one (same, higher, lower)?

11. Would you describe your investments as concentrated or diversified? Explain.

12. Where did you invest the greatest amount of money? Why?

13. Where did you invest the least amount of money? Why?

14. List 3 or more world events that are likely to affect your rate of return (March, 1637).

15. Did you withhold any of your funds from investment in the listed options? Why or why not?

Roll the Dice and Fill in the remaining columns on the investment table. Then answer questions 16 and 17.

16. What was your total at the end of round two? Did any of your investments lose money? Any gains?

17. Was there anything specific about world events that you FAILED to consider or take seriously enough? If yes, what? If no, describe a choice made by someone else who failed to consider world events.
EACH small group will Roll of the dice one investment at a time. Each member of the group should record the impact of the roll on his/her investment. When all groups have completed the Bank investment, roll for the North Sea Trade, and so on.

Roll of the dice (Round Two)

Low risk:
Roll two die.
Your money is safe unless you roll two of a kind.
If you roll two of a kind in threes, fours, fives or sixes, you have lost half of your investment.
If you roll two of a kind in ones or twos, you have lost all of your investment.

Medium risk:
Roll two die.
Your investment has returned the expected profit, unless you roll two of a kind.
If you roll a pair of fives or sixes, your ship was damaged at sea. You made no profit and no loss.
If you roll any other two of a kind, you have lost all of your investment.

High risk:
Roll three die.
If the TOTAL on the die is 10 or LESS, you have earned 400% profit.
If the TOTAL is 11 or 12, you have earned 300% profit.
If the TOTAL is 13, Competition has increased, prices are falling, you have earned 200% profit.
If the TOTAL is 14, overland bandits stole much of your cargo before it reached the ships. You have earned no profit.
If the TOTAL is 15 or higher, you have lost everything. Your ships was infected with PLAGUE and burned at sea.

Very High risk (round two):
Roll two die.
If the TOTAL number is 4 or higher, you have lost your entire investment.
If the number TOTAL number is 3, you have lost half of your investment.
If the TOTAL number is 2, you have 20 times the amount you originally invested.
Finish your investment sheets, and answer the remaining questions. Assist one another as needed; ask for help as needed.

How did you do? (Discuss in small groups or as a class.)

Outline History of the Spice Trade:
   Beginning in the 600s, the spice trade was controlled by Muslim traders;
   Later, spice trade was controlled by Italian descendants of Marco Polo;
   Then the Portuguese and the Dutch (Netherlands - the Tulip folks) took control.

1600s
   Spices were expensive imported goods.
   Cinnamon, cloves, and black pepper were native to the so-called Spice Islands (modern Indonesia and parts of New Guinea).
   Spices could only be grown in tropical climates with lots of rain.
   Travel to spice-growing regions and back required a combination of LAND and SEA travel (Land travel was very slow and often dangerous).

Entrepreneurs found spices desirable to ship because they were both lightweight and extremely valuable. What is an "entrepreneur"? Many groups competed to control the spice trade:
“The starting point for European expansion had nothing to do with religion or capitalism—but it had quite a great deal to do with pepper.”

—Henry Hobson, Seeds of Change: Five Plants That Transformed Mankind

Don't forget! When Columbus sailed for Portugal, he was looking for a shortcut to the Spice Islands.

Spices were used to flavor foods, in medicines, beverages, fragrances, religious ceremonies...

Clove: toothache, earache, sore throat, nasal decongestant, antiseptic - fights infections

Cinnamon: sore throat, cough, anti-microbial, antioxidants

Pepper: indigestion, bloating, antibacterial, antioxidant,
Investment "NEWS" REMEMBER, current events may increase your RISK level.

In 1652, the first of several Anglo-Dutch Wars broke out between England and the Netherlands over TRADE ROUTES and the SPICE TRADE. The Dutch and the English have competing claims over the island of Run.

**War Years:**
- First Anglo-Dutch War 1652–54
- Second Anglo-Dutch War 1665–67
- Third Anglo-Dutch War 1672–74

There are rumors that the government will levy additional taxes to pay for the war.

Land reclamation efforts continue in the Netherlands. Many are investing at home. Engineering innovations encouraged landowners to:
- drain land
- pump water
- extract peat
- fill land
- build dikes and levees

The Spice trade has always been risky:
- Overland thieves
- Desert storms
- Storms at sea
- Piracy
- Plague...

And now... war ships

Which leads us into ROUND THREE of investing! It is the year 1665. Remember you are Dutch investors. Will you risk the spice trade or stay with something safer? There is increased trade interest in the Spice Islands. Much of it is NOT friendly.
Taking Risks: Round Three

Consider the world events discussed in class.
The year is 16665.
You make hold back up to 25% of your wealth for other uses (land reclamation, taxes, living expenses, etc.).
At the END of this round, the TAX percentage will be announced. You MUST be able to pay your taxes.
Fill in column one on the investment table.
Invest in 100 Florin increments.

<table>
<thead>
<tr>
<th>Investment Opportunity</th>
<th>Expected Rate of Return</th>
<th>Risk Level</th>
<th>Amount Invested</th>
<th>Profit or loss</th>
<th>Actual Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td>5% (x .05)</td>
<td>low risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Sea Trade</td>
<td>20% (x .2)</td>
<td>uncertain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Indies Spice</td>
<td>200-400% (x 2 or 3 or 4)</td>
<td>high risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tulip Bulbs</td>
<td>2000% (x 20)</td>
<td>very high risk</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Invested + Amount Held Back Subtotal
Amount Held Back Subtotal
Subtract Taxes TOTAL
18. Which of the following best describes your EXPECTED rate of return for round one
   a. Less than 20%
   b. About 20%
   c. 200-300%
   d. 500% or more

19. How would you describe your level of RISK (low, medium, high, very high)? ____________________________  How does your level of risk compare to round one (same, higher, lower)? ____________________________

20. List 3 or more world events that are likely to affect your rate of return in the year 1652.
    ___________________________________________________________________
    ___________________________________________________________________
    ___________________________________________________________________

21. Did you withhold any of your funds from investment in the listed options? ______ Why or why not? ______

Roll the Dice and Fill in the remaining columns on the investment table. Then answer questions 22 and 23.

22. What was your total at the end of round three? ________________ Did any of your investments lose money? ______ Any gains? _____

23. Was there anything specific about world events that you FAILED to consider or take seriously enough? ________ If yes, what? ___________________________________________________________________

24. Did you meet the GOALS of this game (increase wealth, avoid bankruptcy, provide financial security for yourself and family)? ________ Explain. ___________________________________________________________________

25. This was a game. List 3 “lessons” from the game that offer real life advice for someone investing money in today’s financial markets. Talk it over in your small group.
    ___________________________________________________________________
    ___________________________________________________________________
    ___________________________________________________________________
Roll of the dice (Round Three)

Low risk:
Roll two die.
Your money is safe unless you roll two of a kind.
If you roll two of a kind in threes, fours, fives or sixes, you have lost half of your investment.
If you roll two of a kind in ones or twos, you have lost all of your investment.

Uncertain Risk:
Roll two die.
Trade with England during the war is Illegal. Your ships have engaged in alternative trade routes.
If you roll 9 or higher WITHOUT rolling two of a kind, your investment has returned the expected profit.
If your roll 5-8, costs were higher than expected, you lost time avoiding British war ships, you did not make a profit or loss on this venture.
If you roll Two of Kind, you lost half of your investment to storms at sea.
If you roll 4 or less, you have lost all of your investment to war ships.

High risk:
Roll three die. There is increasing danger in the Spice Trade Route.
If the TOTAL on the die is 7 or less, you have earned 400% profit.
If the TOTAL is 8, you have earned 300% profit.
If the TOTAL is 9, the supply of spices is higher than usual. Prices have fallen. You have earned a 200% profit.
If the TOTAL is 10, you lost much of your cargo to overland thieves. You did NOT make a profit on this voyage.
If the TOTAL is 11, you lost your cargo to Pirates. You have lost ALL of your investment.
If the TOTAL is 12 or higher, you have lost everything to British war ships.

Very High risk (round one):
Roll two die.
You have lost your total investment.
Nobody is buying tulips.

If you invested some of your florins in land reclamation, it will pay off in the long run and provide security for the next generation of family. Congratulations!
Figure out your Totals...
We can't forget about TAXES.

TAXES are due. The government raised taxes to pay for the ongoing Anglo-Dutch Wars.

Your Tax of 15% is based on your TOTAL assets at the END of ROUND TWO. Subtract that amount from your TOTAL at the END of ROUND THREE.

Did you achieve your investment goals?
  Were you able to pay your taxes?
  Did you increase your wealth?
  Did you avoid bankruptcy? Will anyone be headed to a debtors prison?
  Did you achieve financial security for yourself and your family?

DISCUSS as a class. SHARE answers to question 25.

25. This was a game. List 3 “lessons” from the game that offer real life advice for someone investing money in today’s financial markets. Talk it over in your small group.

__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

The following pages are enrichment (debtors prisons, spice trade and the new world connections, Georgia a debtors colony), and may be used as time allows.
More to the story...
In the 1600s-1700s-1800s, it was a crime of sorts to be poor. The solution was work houses and debtors prisons. Most people were born into poverty and stayed there. Some middle class people fell into poverty as the result of poor investments.

   The Victorian Workhouse Youtube
   The workhouse and Home Children Youtube

FYI, some states in the USA are revisiting the idea of jail/prison sentences for unpaid debt. Is it a good idea?
Connecting the SPICE trade to the 13 Colonies.
It was SPICE TRADE, and not the lure of GOLD AND SILVER that first brought Columbus and the Spanish to the New World. France, Great Britain, and the Netherlands followed.

IT TOOK TIME for the "New World" to become a land for gold seekers (Spanish), fur trappers (French), refuge for religious extremists (England), place to send convicts (England), place to send wealthy connected trouble makers (England), source of cotton (England), and a wealth of other natural resources for the making of "finished goods" (England). Land was free for the taking! No such thing in Europe.
Georgia was a colony established as an alternative to the work houses and debtors prisons.
Making the Thirteen Colonies: The Southern Colonies
Georgia: A land for debtors... no slaves, no rum.... at least in the beginning

Making the Thirteen Colonies: The Middle Colonies
New Netherlands: A trade for the spice island of RUN....

From the end of the 1500s the struggle for the Spice Islands of these two great maritime powers, England and Holland, had great consequences. One long contest between them for the small island of Run in the Indonesian archipelago was over immensely profitable nutmeg and went on and off through to the 1660s, when, finally, England bombarded and was allowed to keep New Amsterdam, in return for Dutch control of the island of Run. New Amsterdam soon became New York.

Video Segments at www.discoveryeducation.com