

## **Wall Street magnates: Introducing accounting students to the stock market**

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### **ABSTRACT**

This case project introduces students to the concepts of financial statement analysis and stock market investing through an interactive learning experience using annual reports and a free online fantasy trading platform. The learning experience is designed for introductory level accounting students, and can be customized for more advanced topics in accounting or finance. Templates for two assignments are provided, requiring students to individually complete a financial statement analysis of a public company and work within groups to invest \$100,000 in the stock market for the semester. Student groups compete against each other to generate the most profits from their investment portfolio. Feedback from students indicates that the experience is practical, competitive, engaging, and a valuable learning task.

Keywords: Stock market, annual report, financial accounting, finance, case project, financial statement analysis



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## INTRODUCTION

Accounting is often referred to as the language of business. No matter the emphasis, an arguably critical aspect of any financial accounting course is teaching students how individuals use accounting information in practice. One component of this journey is for students to acquire descriptive knowledge by learning the vocabulary used in our language, the norms of the practice, and the links between the processes of accounting, financial reporting, and investing. These topics, the *what* and the *why*, can easily be taught using a textbook.

However, in order to gain procedural knowledge, students should obtain experience in the processes of accountants and financial professionals. Even at the introductory level, I argue that this learning experience can be implemented utilizing real-world cases to demonstrate *how* accounting and finance professionals practice. By the end of an introductory accounting course, students should be able to apply the basic descriptive knowledge they learned in the textbook to a real-life company, and truly understand how accounting impacts financial markets. This provides students with context, and adds value to any textbook-oriented course.

This individual or group case project provides an example of how students can practice and demonstrate their knowledge of accounting, analyze financial statements, communicate their findings, and link the results to real-world investment decisions utilizing an online fantasy stock trading community. While the version presented in this article is one that has been utilized in an introductory accounting course, the case project provides a template that could easily be tailored to the material covered in more advanced accounting and finance courses. It has been successfully implemented for over a decade at multiple public and private universities with students from all ages, income levels, backgrounds, and experiences.

Using annual reports in course projects is not a new idea, and others have published cases that suggest the analysis of annual reports to teach students applied knowledge in both introductory and advanced accounting and finance courses (Flores, 2015; Boldt & Stovall, 2018). However, this case project integrates the analysis of annual reports with knowledge of the stock market, and introduces an element of competition that provides additional incentive for high performance. This case project also minimizes preparatory work by providing all handouts and assignments that may be customized or used in their current form. Overall, feedback from students is consistently positive, indicating that the case project is competitive, interactive, fun, and informative.

The sections below provide a summary description of the case project, suggestions for implementation and customization, templates for handouts and student assignments, and a grading rubric. The overall goal is to provide sufficient materials and guidance for instructors to easily implement the case project in their course with minimal preparatory time commitment.

## SUMMARY OF CASE PROJECT

The case project consists of two separate phases that require students to complete tasks individually and as a group. Two assignments are provided, requiring students to individually complete a financial statement analysis of a public company and work within groups to invest \$100,000 in the stock market for the semester.

First, students divide into groups of 3-4. They then each choose a public company from a restricted list and complete a financial statement analysis assignment. Each individual student becomes the expert in their chosen company, and provides investment advice to the group.

Groups meet to debate and determine how they will allocate an investment fund of \$100,000 in the stock market between their chosen companies. Stock purchases will be held until the end of the semester, concluding with a group assignment that reflects on the outcome.

The stock market task is completed using a free online fantasy trading platform called Wall Street Magnate ([www.wallstreetmagnate.com](http://www.wallstreetmagnate.com)). To facilitate competition between groups in the class, the instructor administers an investment club using this online platform that allows students to see their progress in comparison to other groups. The fantasy investment portfolios are updated on a real-time basis with the actual stock market. At the end of the semester, the instructor can determine rewards for the top investment groups. One suggestion that has worked well in past semesters would be to award 100 Grand candy bars to the winning students.

All suggested implementation steps are described in detail in the next section, with handouts and assignments provided in the Appendix.

## **IMPLEMENTATION AND CUSTOMIZATION**

The following steps are designed to be implemented in an introductory accounting course. The process outlined below has been implemented in various forms in an introductory accounting course for over 13 years. Changes over this period of time in the project were the result of feedback from students and instructor observations, resulting in a time-tested process tailored to the specific requirements of introductory accounting students. However, the case project can be easily customized for more advanced accounting and finance courses by adding more complex requirements to the assignments.

### **Class Session 1: Introduction to Project**

Case project requirements and expectations are introduced on the same day that students learn about financial statements and ratio analysis. Students are instructed to read a handout describing the project requirements and expectations during a break in class. See Appendix A for a copy of this handout. At the end of class, students are asked to choose their groups and companies. Each student within the group must choose and analyze a different company. Therefore, if there are 4 students in a group, there will be a total of 4 companies chosen and analyzed by individuals within the group. Students are typically provided a limited list of companies to choose from, which allows for instructor control of the industry and complexity of the financial statements. This also allows for advanced planning for integrating their company choices into the class using examples and references in lectures. Students are then provided with an electronic copy of Assignment 1, which requires students to individually analyze the company they chose (See Appendix B). This allows the instructor to have an individual measure of each student's knowledge of the financial statements separate from the group.

### **Class Session 3: Assignment 1 Deadline**

Students are required to turn in Assignment 1 within 2 weeks of the first class. They are asked to come to class prepared to discuss their conclusions within the group to determine how they will allocate their \$100,000 investment fund between the companies chosen by group members. A short amount of time is allotted at the end of class for this decision process to allow the instructor to observe their progress and assist with any issues. Students typically engage in a

very active debate to determine their investment allocations. For this project, students are required to buy and hold their investments for the entire semester, which means that this initial decision is important. This class period is also utilized to assure that each group is registered on the Wall Street Magnate site, and has joined the class investment club. Students are directed to “purchase” their stock within the software before the end of class.

### **Periodic Updates**

Periodically throughout the semester, instructors may utilize the Wall Street Magnate website to display the class investment portfolio rankings. This can be found on the class investment club page. A brief class discussion will highlight potential reasons for large fluctuations, and students typically provide updates from news articles they have read about their companies.

### **End of Semester: Assignment 2 Deadline**

Assignment 2 is a group task, requiring students to reflect on the outcome of their investment decisions from the beginning of the semester (see Appendix C). Students provide explanations for the results, and discuss what they would do differently if they had a chance to modify their portfolio (buy, sell, hold decisions for each stock). An adequate amount of time is scheduled between Assignments 1 and 2 to allow for the students to track the outcome of their investment decisions over a period. Typically, for a 14-16 week course, the deadline for Assignment 2 will be close to the end of the semester. This allows for 2 months of investment/stock market tracking.

### **Extensions and Additional Delivery Options**

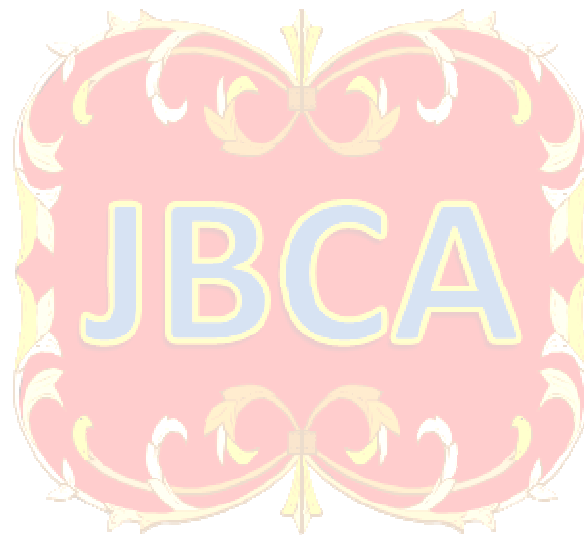
The following are helpful suggestions for additional extensions to these project tasks that have worked well in past semesters:

- Require students to present a news article to the class on their company.
- Require a group presentation at the end of the semester discussing the conclusions reached in Assignment 2.
- Require students to draft a news release to potential investors in their fund, summarizing the performance over the course of the semester.
- Increase the requirements for the financial statement analysis to include a vertical and horizontal analysis, examination of accounting policies, and other key qualitative details from the rest of the annual report.
- Require students to each analyze two companies within the same industry and choose which one to invest in with the allocated funds.

## REFERENCES

Boldt, M.N. and Stovall, J.C. (2018). The 10-K scavenger hunt: Connecting management accounting with the annual report. *Journal of Business Cases and Applications*, 22.

Flores, M.K. (2015). Using Bloom's taxonomy to promote higher level thinking and learning in introductory accounting courses. *Accounting Instructors' Report*. Retrieved From <https://blog.cengage.com/using-blooms-taxonomy-to-promote-higher-levelthinking-and-learning-in-introductory-accounting-courses/>



**APPENDIX A****Handout: Wall Street Magnate Project Description**

The purpose of this project is to provide an example of the real-life impact of the accounting information you will be learning about in class. This project will allow you to gain an understanding of financial statements, ratio analysis, and the basics of stock market trading.

Accounting is the language of business. Both internal and external users rely upon the information provided by accountants. You are taking on the role of an external user relying on financial statements to make investment decisions. This course project puts you and your team in the role of Wall Street analysts and requires both individual and group analysis.

Each student in the class will choose a US public company to analyze, and you will participate in a virtual stock market simulation based on real market data from stocks listed on NASDAQ, NYSE, or AMEX. In small groups, you will create an investment portfolio, analyze the financial reports of companies in which you hold stock, buy and sell stock, compute your profit (or loss) on your investment, and render an opinion about the future prospects of your companies.

I will create an investment club for the class on the “Wall Street Magnate” website. You will form investment groups of 3-4 members, create one investment profile for your group, and join the class investment club. Each group will have a hypothetical \$100,000 to invest at the beginning of the semester in the companies chosen by the individuals in your group, and will compete against the other groups in the class to generate the most profits on your investment.

Each individual in the group will be responsible for choosing one company for the portfolio, and will complete one graded individual assignment for the chosen company. The group will also have one graded assignment for the entire portfolio, due on the last day of class.

By the end of today, please submit a document with your group name, members, and preliminary company choices for the individual assignment. Your first assignment is due in two weeks. You will be permitted class time to meet with your group to determine how you will allocate your \$100,000 investment fund.

**APPENDIX B****Template for Assignment 1**

To begin, find your company's most recently released Annual Report (10-K). Find the financial statements within the 10-K, and use them to answer the questions below. Type your answers into the provided spaces. Attach a copy of the financial statements at the end of this document.

*Company Overview*

Company name	
Stock ticker symbol	
Industry	
CEO	
CFO	
Products	
Competitors	
External Audit Firm	

*Balance Sheet Analysis*

Enter or Calculate the Following Items:	Current Year	Previous Year
What is the balance sheet date?		
Calculate the Current Ratio		
Calculate the Quick Ratio		
Calculate the Debt to Assets Ratio		
Assess the liquidity and solvency of your company in this box. Reference specific information contained in the annual report, balance sheet, or ratios calculated above in your response.		

*Income Statement Analysis*

Enter or Calculate the Following Items:	Current Year	Previous Year
Net Sales Revenue		
Gross Profit		
Calculate Gross Profit Percentage		
Operating Income		
Net Income		
Calculate Profit Margin		
Basic Earnings Per Share		
Assess the profitability of your company in this box. Reference specific information contained in the annual report, income statement, or ratios calculated above in your response.		

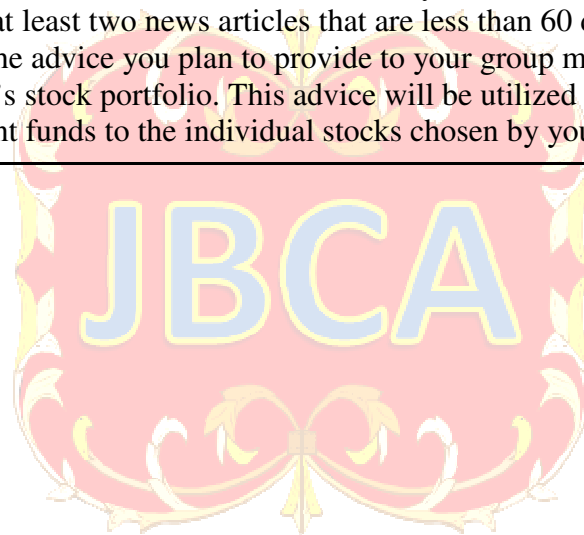
*Cash Flow Statement Analysis*



Enter the Following Items:	Current Year	Previous Year
Net cash provided (used) for operating activities		
Net cash provided (used) for investing activities		
Net cash provided (used) for financing activities		
Total change in cash		
Summarize the sources of any significant inflows and outflows of cash for your company in this box. Reference specific information contained in the annual report and cash flow statement in your response.		

*Company Updates and Stock Recommendations*

Summarize updates in this box. Perform research to update your understanding of any changes in your company's financial condition since the most recent balance sheet date used in your analysis above. This will provide more up-to-date information to assist with your group's stock investment recommendations. Summarize the results of your research in 2-3 paragraphs. Your update should include at least two news articles that are less than 60 days old. Your summary should conclude with the advice you plan to provide to your group members to assist in developing your group's stock portfolio. This advice will be utilized by your group to allocate the \$100,000 investment funds to the individual stocks chosen by your group members.





**APPENDIX C****Template for Assignment 2**

Choose 5 ratios that you believe best represent the liquidity, solvency, and profitability for your group's chosen companies. Insert rows as needed.

Company name	Ratio 1	Ratio 2	Ratio 3	Ratio 4	Ratio 5
Summarize your group's overall assessment of the liquidity, solvency, and profitability of the companies you analyzed in this box.					

List the purchase and ending price for the stocks you purchased as a group, as of the closing on date indicated below. Insert rows as needed.

Project Ending Date			
Company Name	Purchase Price Per Share	Ending Price Per Share	% Change
In this box, discuss whether your group would choose to "Sell", "Buy more", or "Hold" the stocks you originally purchased, if you were to re-do your portfolio today.			

*Overall Conclusions*

<p>In this box, discuss the factors that you believe resulted in the above stock market trends for the <i>best</i> and <i>worst</i> performers. Answer the following in your analysis:</p> <p>How did your group originally divide the \$100,000?</p> <p>How did the overall group portfolio perform for the project term?</p> <p>Are the stock price changes consistent with the ratio analysis you conducted, or did you base your decision on other factors?</p> <p>What other factors do you believe influenced your portfolio value in this period of time?</p> <p>Describe your rationale for any changes in your portfolio as of the project end date.</p>
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