The Application of a Simulated Trading Platform in International Finance

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Abstract

In this article, we discuss how to apply a trading platform (OANDA) in the international finance course to enable students in finance to gain currency-trading experiences. By use of this system, the finance instructor is able to assist students in achieving the learning outcomes. This practical training is also meaningful to enable the school of business to meet the AACSB requirements and maintain credential standards.

Keywords: International Finance, OANDA, Experiential learning

1. INTRODUCTION

Many papers discuss the trading platforms applied in Investment Courses, but little research discusses the stimulated trading in use in international finance classes. This paper presents that the practical currency trading using OANDA in International Finance classes lets students better understand the currency market. Use of ONADA enhances the course design, improves the curriculum, and enables students to meet learning outcomes.

Using OANDA in the classroom is the solution to solve the problem of limited learning resources that result from a lack of financial means. OANDA is a simulated FX trading platform that offers real-time leveraged trading, hedging, and data services. Students can trade FX on laptops or download this platform for use in the mobile facility. It is free for students to open a demo account and they can also track FX rates at any time to conduct trades. This free demo account is particularly beneficial for schools having tight budget controls on purchasing a trading platform.
The Association to Advance Collegiate Schools of Business (AACSB) requires schools to deliver high-quality education that advocates the appropriate integration of academic and professional engagement. The application of OANDA in an international finance course enables instructors and students to use real-world trading information to meet the learning outcomes. It can help students develop real FX market trading skills and experiences, and can improve student analytical and critical thinking skills and the use of information technology. These goals are allied with AACSB’s standards and learning goals.

2. LITERATURE REVIEW

Finance faculties have long recognized the importance of internationalizing the business and finance curriculum. Although different business programs may have dissimilar preferences in their coverage of the international component, how FX markets work and how to manage exchange rate risks are essential topics that should be included in the design of an international finance course (Manuel and Shooshtari (1996) and Desai (2006)).

To improve student understanding about the dynamics in the financial markets, many instructors use simulations. Simulations give students “hands-on” feel and help them to understand better the definitions and concepts from the textbooks by this form of active learning. Butler and Kwok (1994) designed a foreign exchange market simulation game to involve students in the operation of the market and help students gain a “hands on feel.” Marshall (2004) uses an in-class simulation to teach triangular and covered interest arbitrage to help students identify and then make decisions on how to act on arbitrage opportunities in the foreign exchange markets. Not satisfied with the pencil and paper system in Butler and Kwok (1994), Chou and Liu (2013) developed a web-based trading
system to replicate electronic brokerage FX markets, where students can create a trading strategy and set the “market” price.

While these endeavors help to improve student understanding about FX markets, however, they are mainly simplified systems that do not allow students to grasp the complexity and depth of the markets. Suiver (2013) address the application of OANDA in the international business finance course. But his research targets a group of general business students and is lack of a detailed technical instruction for students and faculty in conducting a FX trading. In this article, we propose taking advantage of the OANDA system, which provides real-time information of actual market prices for finance students and faculty.

3. CURRENCY TRADING PROJECT

We created the OANADA project to give students firsthand FX trading experiences and prepare them to succeed in a future career. The traditional international finance class is not sufficient for students to learn practical trading experiences. We incorporate the OANDA project to help increase student understanding of the currency market and manage the trading skills, which benefits students to expand on this trading knowledge in other financial markets, such as those for equities or bonds. They will gain deeper understanding of the foreign exchange market, currency quotes, communication systems, and currency forecasting techniques discussed in the international finance textbook by Bekaert and Hodrick (2012).

Additionally, using OANDA in international finance classrooms is an effective way to help business schools meet or maintain AACSB’s standards. The learning outcomes of
this project focus on enhancing students’ skills in critical thinking, problem solving, technical application and decision-making. Thus the practical currency project is able to help schools meet criteria including application of knowledge, information technology, and analytical thinking. This project can be designed for undergraduate, graduate, or MBA students in the field of finance.

In this project we require students to use both fundamental and quantitative analyses. The fundamental analysis allows students to apply the concept of the overall state of the economy. They need consider the impact of financial news, government policies, interest rates, a country’s financial statements, GDP, inflation rate, or employment rate on the movements of exchange rates. The quantitative or technical analysis allows students to use chartism, filter rules, regression analysis, or non-linear analysis to identify investment opportunities (Bekaert and Hodrick, 2011). We target both approaches in line with the learning outcomes. Thus students are able to know how to find and use resources to identify the movements in the currency market and gain factual knowledge in international finance. Moreover, their ability to apply theoretical finance in the real currency market eventually matches the criteria of information technology and application of knowledge required by AACSB, thereby helping the school of business to meet the mission and maintain AACSB’s standards.

3.1 Analysis before Placing an Order

To begin the FX trading project, students need to create a practice demo account at OANDA. It is a free and full access trading account with 100,000 units of virtual currency. The best way to practice is to start tracking the movements of several main currencies, such
as Canadian dollar, Australia dollar, US dollar or Euro dollar and then selects currency pairs like US/CAD and AUD/US. Instructors should guide students to conduct the currency-trading project using both fundamental and quantitative approaches. Beginning the project with a fundamental analysis, students can use the relevant news or macroeconomic data to start the initial analysis. To search news at OANDA, they need to launch FX news frame first and then filter the criteria under either Dow Jones or USB. For example, choosing Bank of Canada in Government area under Dow Jones, instructors are able to show students news released by the Bank of Canada and discuss the macroeconomic data or news influence on the future movements of exchange rates. The alternative way to access news is to choose the news button in the FX-trade practice frame. OANDA also provides resources such as MarketPulse and Economic Analysis, to show the overall activities of investors at OANDA and the investment opinions from other financial analysts. 

Instructors can show students how FX traders use these live quotes to conduct currency trading. OANDA updates the real-time FX bid-ask quotes every five seconds. Students can check the quote panel or quote list on the FX trading platform. They can also customize the panel or list based on their research. Figure 3 shows that the currency pairs can be moved or added from the pool on the left side to the quote list on the right side. The customized quote panel or list will be shown on the main page of the trading platform after a brief period. It is the convenient way for students to track the rates of currency pairs. They can also download the historical quotes in spreadsheets when they conduct the numerical analysis. [insert Figure 2 here] [insert Figure 3 here]
The fundamental analyses emphasize in analyzing the macroeconomic data, while quantitative analyses focus on the financial data to estimate the movements of exchange rates. The lower right side in Figure 2 presents the chart of FX rates at a certain time. The chart provides the tendency movements of currency pairs. Instructors guide students to go through these different types of charts to discuss how the support or resistance levels appear and how the moving-average line delivers a buy, sell, or hold signal. After downloaded of the historical FX rates into the spreadsheets, students can conduct regression analyses to link the exchange rate changes to the macroeconomic data such as inflation rate or interest rate differentials. The positive value in the expected market return interprets the trading profits, and the negative return means a trading loss. OANDA has the Technical Analysis resource for technically analyzing and discussing how the potential trading opportunity is evaluated against past performance. Therefore, with the fundamental and technical analyses, students use their own judgement to predict the movements of exchange rates.

Instructors may require students to generate the pool of currency pairs based on the statistical correlations among currency pairs. The lower correlation among currency pairs indicates the potential diversification. The currency portfolio, just like a bond or equity portfolio, diversifies the investment risk. Students can select more than one currency pair in the project so they can learn how the portfolio theory is applied in the currency market. They should analyze the correlation matrix and then select the less correlated currency pairs in the portfolio.

3.2 Placing Orders
Each student is asked to use an amount of 100,000 units of virtual funds to trade on the OANDA platform. Figure 4 presents the buy and sell window at OANDA. Units on this window indicate the maximum number of the base currency that students can trade for the chosen currency pair. Instructors can also discuss the risk of using leverage. When students place an order, they can use the leverage from 1:10 to 1:50. The higher leverage represents more risk for the investment. [insert Figure 4 here]

Instructors can let students place a buy or sell order and then hold it for a couple of days or weeks before closing the position. Students can place either a market order or a limit order. Figure 4 presents the current market quote that was executed when the student submitted the order. Limit order, on the other hand, is only executed when the market rate reaches a specified price in the future.

In the meantime, instructors may guide students to use Stop Loss and Take Profit functions in the buy and sell window. The open position could be cancelled by these opposite trading instructions on the system. Students may set the maximum loss they can afford and then set the Stop Loss level to avoid further unfavorable movements. A Stock Loss function protects students from potential loss. This function is similar to the insurance that helps investors reduce the loss if a price moves in an unfavorable direction.

### 3.3 Tracking the Orders

The strategy or amount of an investment can be adjusted based on the performance of the currency portfolio. The account summary on the main page of the FX trading platform shows the overall investment performance. Unrealized Profit and Loss (P&L) on the platform indicates the gains or losses for open positions and Realized P&L shows the
gains or losses for closed positions that actually affect the account balance. Students can also track the type of order placed, current market quote, and profit in dollar or percentage to adjust or rebalance their portfolio.

Following the trading procedure of this currency project, students are required to summarize the trading performance, regardless of the gain or loss in trading. In the summary part, they should address the strength and weakness learned from this trading project. They should also address whether they properly applied the quantitative and qualitative methodologies to make the investment decision, if interpret the trading strategy in the real financial market, and whether they can use the different financial sources to create the project and solve the questions.

4. CONCLUSION

In this article we present a currency project that provides a direct trading experience for students in international finance classes. OANDA, a stimulated trading platform, allows students simultaneously to catch changes in the real currency market. Conducting the currency trading project, students learn how to analyze the currency market, place a selected type of trading order, and track the portfolio performance after placed an order. We realize that students not only learn the trading skills, but also enhance their learning interest in international finance. Moreover, the currency-trading project helps finance instructors and students achieve teaching and learning outcomes using the user-friendly technical platform. Those outcomes eventually meet the AACS B’s standards and goals, including the integration of the academic and professional engagement, and the application of knowledge, information technology and analytical thinking-decision. The school of
business should benefit from these achievements in the application or maintenance of the AACSB accreditation.

REFERENCES
APPENDIX

Figure 1. Checking News at OANDA.

Figure 2. Main Page of fxTrade platform.
Figure 3. Customizing Quotes List.

Figure 4. Placing Orders.