

## Project – Exchange Rates – FINC 4521 – International Finance – Fall 2011

Examine the movement of exchange rates from August 31, 2006 to August 31, 2011. Compare two foreign currencies to the U.S. Dollar. The first foreign currency must be the Euro. The second foreign currency may be any currency that floats or has managed float against the U.S. Dollar.

### Data Collection:

Collect exchange rates from Oanda ([www.oanda.com](http://www.oanda.com)).

1. Click on Currency Tools at the top of the page, then scroll down and click on Historical Exchange Rates. Choose U S Dollar as the “Currency I Have.” Under “Currencies I Want” choose in two separate boxes the Euro and the second foreign currency you are using in the project. Set the “Range” equal to 8/31/2006 to 8/31/2011. Choose Bid as the “Price,” Rate as the “Values,” and Weekly as the “Frequency.” Click on the link “download” on the right-hand-side near the top of the page. Choose to save the file when prompted and name it “Data1.” (The data will save as an Excel comma-delimited file.)

2. Return to [www.oanda.com](http://www.oanda.com). Click on Currency Tools at the top of the page, then scroll down and click on Historical Exchange Rates. Choose the Euro as the “Currency I Have.” Under “Currencies I Want” choose in the first box your second foreign currency. Set the “Range” equal to 8/31/2006 to 8/31/2011. Choose Bid as the “Price,” Rate as the “Values,” and Weekly as the “Frequency.” Click on the link “download” on the right-hand-side near the top of the page. Choose to save the file when prompted and name it “Data2.”

3. Open Data1 from step 1. Column A should have the dates, Column B, the USD to Euro, and Column C the USD to second foreign currency. Open Data2 from step 2. Copy Column B from Data2 (this should be the exchange rate between the Euro and your second foreign currency) to Column D in file Data1. Choose Save As to save the current “Data1” as an Excel file with the name “yourname1.” (For example, if your name is John Smith, name the file JohnSmith1.)

4. Open the Excel file “yourname1” you created in step 3. Insert a column between each of the exchange rate columns such that the dates are in column A, the USD to Euro rates are in column B, the USD to second foreign currency rates are in column D, and the Euro to second foreign currency rates are in column F. Sort the data such that the date column is in ascending order (earliest date first – latest date last).

### Responsibilities

- I. Provide a spreadsheet that includes all of the following. Name the spreadsheet “yourname1.” For example, if your name is John Smith, name the file JohnSmith1.
  - A. Data downloaded from Oanda after conversion to date and exchange rate format. (These are columns A, B, D, and F from above.)
  - B. Columns showing the percentage change in each exchange rate each day. (Create in columns C, E, and G.)
  - C. Column that calculates the implied cross rate between the two foreign currencies using data for the U.S. Dollar relative to the two foreign currencies. (Create in column H.)
  - D. Show the mean, standard deviation, minimum, and maximum values for each exchange rate and percentage change column. (Use Excel statistical functions to calculate values below each data column.)
  - E. Graph of the behavior of the actual exchange rates over the three-year time period. Put all three exchange rates on the same graph. (Create graph on second sheet of workbook.)
  - F. Calculate the difference in the actual exchange rate for the two foreign currencies and the implied cross rate using U.S. Dollar exchange rates. (Create in column I.)

- II. Research the currencies you have chosen and write a summary which includes the following information. The summary must be typed in Word using Times New Roman 12 point font, be double-spaced, be no more than two pages long, and be free of grammatical errors. Margins must be set at one inch all around. Similar to spreadsheet above, name the Word document “yourname2.”
- Description of the exchange rates’ behavior over the period.
  - Identification of the key events and/or factors that influenced the rates.
  - Indication of the sources of work used to prepare the summary.
- III. On a separate page at the end of the Word file created in Part II, provide the following information.
- Date when the difference between the implied cross rate and the actual exchange rate for the two foreign currencies was the largest.
  - Show the profit earned through the process of triangular arbitrage if there were no transaction costs and you were to begin with the equivalent of \$10,000,000 (U.S.) using the exchange rates from the date listed in part A of this section.
  - Show all calculations for the necessary steps.

### Due Date and Grading

The project is due no later than **November 16, 2011 at 11:59 pm**. Submit the project through CourseDen. To submit the project, go to the FINC 4521 CourseDen page, click on Project Dropbox folder, click on “Project,” type your name in the textbox, attach the two project files (Excel spreadsheet and Word file) using the “Add Attachments” button, and then click the “Submit” button. If you encounter any problems contact Dr. Best (contact information is in the syllabus).

**Each day the project is late results in a 10 point deduction in the grade that would have been assigned. If the project is more than two days late, the project grade will be zero.**

Project grades will be based on the following criteria. The scores for all categories will be summed to determine your overall project grade.

	Poor	Fair	Good	Excellent	Score
Inclusion of all required information	10	14	17	20	
Analysis	10	14	17	20	
Statistical Summary	10	14	17	20	
Spreadsheet and Graphs	10	14	17	20	
Appearance of the Report	10	14	17	20	
<b>TOTAL POINTS</b>					

(Projects may be rated as falling in the middle of scoring categories. For example, if the “Analysis” section of a paper is rated as falling between “Good” and “Excellent,” it would receive a score of 37 on that section (the average of 34 and 40).