

## **FINANCE AND INTERNATIONAL BUSINESS STUDENTS AND THEIR KNOWLEDGE OF THE EURO**

**Ralph A. Pope and Ken Chinen**

The implementation of the Euro in 1999—a currency that rivals the dollar and the world's second most important reserve currency—has had a major impact on the international currency market. From its initial price on January 1, 1999, of one Euro = \$1.17, the Euro lost value rapidly. By October of 2000, one Euro was approximately \$.82 at its lowest point. Since that time, the Euro strengthened, surpassing the \$1.30 mark. At this writing one Euro = \$1.23.

The GDP of the 12 countries in the Eurozone (the European Monetary Union) equals that of the United States. In 2007, the first of the ten newest countries in the European Union (which now consists of 25 nations) should start using the Euro. Other attempts have been made by several countries adopting a single currency. All have failed without the structure of a fully integrated political union (as Germany in the 1800s and the United States). If the Euro is successful, it will be the largest and uniquely successful undertaking of this kind in history.

### **Objective of the Study**

The objective of this study is to investigate what business students (primarily Finance and International Business students) know about the Euro. The survey was given to both undergraduate finance students (the second course in Financial Management and the first course in International Business) and graduate students (both in Finance and in International Business). The survey was given the first week of the fall semester 2005 before the Euro was discussed in any of the classes. Altogether, approximately 227 students participated in this study.

This study is the repeat of a study previously undertaken in the fall of 2000 when the Euro equaled approximately \$.85. Some of the wording of the instrument has been changed so that the survey corresponds with the current year 2005. At the time this survey was distributed to students, 1 Euro equaled between \$1.21 and \$1.25.

### **Content of Study**

Some of the areas that will be explored consist of what is the Euro; where the Eurozone is geographically located at the present time; how many countries use the Euro at the present time. Students were also asked what is the approximate price of the Euro with respect to the dollar at the time the survey instrument was administered.

This study also explores the student's knowledge of other monetary questions. For example, students were asked whether nations that use the Euro must also give up the use of their

---

Ralph A Pope is Professor of Finance at California State University and Ken Chinen is Associate Professor of International Business at California State University

own currencies, such as the French franc, the mark, etc. Students were also asked if the nations that use the Euro must also give up the use of their own monetary policy as an economic tool. They were also asked the purpose of the European Central Bank.

Some of the classification variables used in this study is the student’s major, the student’s grade point average (GPA) and whether the student is an undergraduate student or a graduate student. The student’s gender was also used.

**Research Design in Brief**

Data is being analyzed primarily by using Chi-square and t tests. The survey instrument consists of 13 questions and statements. Further analysis was done with the current data set. Comparisons were made with respect to the results of the present data set and the study performed in the fall of the year 2000. Since the wording of the surveys administered in 2000 and 2005 differed somewhat from each other, no side to side tables are presented. The questionnaire was administered at one regional university, California State University, Sacramento. This is a multicultural university in northern California. A future study will include several universities in the United States. The survey used is included in the Appendix.

**What is the Euro?**

Students were asked to continue the statement “The Euro is . . .” The students were allowed to select from the four choices shown in the three following tables.

**Table I**  
**What is the Euro, By Major**

	Finance		IB		Other Business Major	
	Number	%	Number	%	Number	%
A new currency in Russia	2	2.2	1	4.2	0	0
A new currency in several countries in Western Europe	72	80.0	21	87.5	91	82.0
A new currency in Eastern Europe	11	12.2	1	4.2	14	12.6
I do not know	5	5.6	1	4.2	6	5.4
Total	90	100%	24	100%	111	100%
<i>Pearson Chi-square</i>	<i>Value = 4.936</i>		<i>Df = 6</i>		<i>Sig. = .552</i>	

At least 80% of the respondents in all of the groups knew that the Euro is the new currency in several countries in Western Europe. In the study presented in the Review of the Academy of Finance (March 2001), the results are very similar. In that study, 74% of Finance majors, 87% of IB majors, and 81.2% of Other Business Majors indicated the correct answer.

Also, when the responses were divided into two groups by gender, a T-test showed no significant difference between males and females.

This question was also analyzed to determine the relationship of student GPA with respect to the correct answer.

**Table II**  
**What is the Euro, By GPA**

	< 3.2		> 3.2	
	Number	%	Number	%
A new currency in Russia	1	1.0	1	1.0
A new currency in several countries in Western Europe	79	77.5	89	87.3
A new currency in Eastern Europe	14	13.7	9	8.8
I do not know	8	7.8	3	2.9
Total	102	100%	102	100%
<i>Pearson Chi-square</i>	<i>Value = 3.955</i>		<i>Df = 3</i>	
			<i>Sig. = .266</i>	

A T-test was performed on the correct answer with data divided into two groups: those with a GPA < 3.2 and those with a GPA ≥ 3.2. The results were significant at the .05 level of significance, with students having higher GPAs being correct more frequently.

This question was also analyzed to compare the responses of undergraduate students and graduate students.

**Table III**  
**What is the Euro, By Undergraduate/Graduate**

	Undergraduate		Graduate	
	Number	%	Number	%
A new currency in Russia	3	1.7	0	0
A new currency in several countries in Western Europe	137	77.8	47	95.9
A new currency in Eastern Europe	24	13.6	2	4.1
I do not know	12	6.8	0	0
Total	176	100%	49	100%
<i>Pearson Chi-square</i>	<i>Value = 8.736</i>		<i>Df = 3</i>	
			<i>Sig. = .033</i>	

A T-test was performed with respect to the correct answer. The result was found to be significant at the .05 level of significance. That is, graduate students were significantly more likely to select the response that the Euro is a new currency in several countries in Western Europe than undergraduates. Although, more than three quarters of each group selected the correct answer.

### The Current Value of the Euro

Students were asked “What is the present approximate value of the Euro with respect to the dollar?” The eight choices that the students could select from are shown below. The data is classified by major. The survey was given when the Euro was between \$1.22 and \$1.24. The researchers deemed that a “correct” answer for this survey would be either 1 Euro = \$1.20 or 1 Euro = \$1.30. Using this as the “correct” range, Finance majors were correct approximately 46.7% of the time, while 15.2% had no idea of what was considered correct. International Business (IB) majors, while consisting of only 24 students were correct 50% of the time (only 8.3%--that is two IB students—had no idea). With respect to “Other Business Majors,” only 28.2% answered the question correctly with 18.2% having no idea.

**Table IV**  
**Current Value of the Euro, By Major**

	Finance		IB		Other Business Major	
	Number	%	Number	%	Number	%
1 Euro = \$1.50	23	25.0	6	25.0	28	25.5
1 Euro = \$1.30	22	23.9	5	20.8	12	10.9
1 Euro = \$1.20	21	22.8	7	29.2	19	17.3
1 Euro = \$1.10	4	4.3	2	8.3	9	8.2
1 Euro = \$1.00	2	2.2	1	4.2	3	2.7
1 Euro = \$.95	0	0	0	0	4	3.6
1 Euro = \$.85	6	6.5	1	4.2	15	13.6
I do not have any idea	14	15.2	2	8.3	20	18.2
Total	92	100%	24	100%	110	100%
<i>Pearson Chi-square</i>	<i>Value = 17.2</i>		<i>Df = 14</i>		<i>Sig. = .246</i>	

A similar question was asked in the survey which appeared in the Review of the Academy of Finance (March 2001). At the time when that survey was administered (Fall 2000), 1 Euro = \$.85. The answer was deemed correct if the student answered 1 Euro = \$.95 or 1 Euro = \$.85. In that study 48.1% of the Finance majors were correct and 40% of the IB majors were correct. With respect to Other Business Majors, 37.2% were correct.

The number of students that “had no idea” was generally higher. With respect to Finance majors 27.3% had no idea of the correct answer, 6.7% of the IB majors had no idea, and 38.6% of Other Business Majors had no idea.

### Giving Up the Use of a Country's Currency

Students were presented with the following statement:

“Nations that use the Euro as its currency gave up the use of their own currency, such as the French franc, the mark, etc.”

Three responses followed:

- a) True
- b) False
- c) I do not know.

Again students were grouped into the following majors: Finance, International Business, and Other Business Majors. The responses are shown below:

**Table V**  
**Nations Will Give Up the Use of Their Own Currency, By Major**

	Finance		IB		Other Business Major	
	Number	%	Number	%	Number	%
True	58	63.0	12	50.0	77	69.4
False	22	24.0	12	50.0	21	18.9
I do not have any idea	12	13.0	0	0	13	11.7
Total	92	100%	24	100%	111	100%
<i>Pearson Chi-square</i>	<i>Value = 12.12</i>		<i>Df = 4</i>		<i>Sig. = .016</i>	

At least 50% of each of the three groups found that statement to be true. Also, when dividing the responses by gender, using a T-test, no significant difference was found between males and females.

### Loss of a Nation's Monetary Policy

Students were presented with the following statement:

“Nations that use the Euro as its currency gave up the use of their own monetary policy as an economic tool.”

This statement was analyzed by the student's major, by the student's GPA ( $< 3.2$ ;  $\geq 3.2$ ), and whether the student was an undergraduate or graduate student. The last two of these are used as a proxy for intelligence.

Three tables are shown below depicting these three. The data for the last two tables were also analyzed by t-tests.

In Table VI, less than 50% of each group stated that nations that use the Euro as their currency would give up the use of its monetary policy as an economic tool. Approximately 61% of IB students stated that those countries using the Euro will **not** give up their monetary policy, while 35% of Finance students indicated the same answer.

**Table VI**  
**Loss of a Nation's Monetary Policy, By Major**

	Finance		IB		Other Business Major	
	Number	%	Number	%	Number	%
Will give up monetary policy	40	44.0	6	26.1	48	43.2
Will not give up monetary policy	32	35.2	14	60.9	40	36.0
I do not know	19	20.9	3	13.0	23	20.7
Total	91	100%	23	100%	111	100%
<i>Pearson Chi-square</i>	<i>Value = 5.584</i>		<i>Df = 4</i>		<i>Sig. = .232</i>	

Placing the data into two groups (GPA < 3.2; GPA ≥ 3.2); those that answered correctly (“will give up monetary policy”) was significantly different at the .01 level of significance when performing a T-test. That is, a student’s GPA is a significant factor in predicting if the student answered the question correctly.

**Table VII**  
**Loss of a Nation's Monetary Policy, By GPA**

	< 3.2		> 3.2		
	Number	%	Number	%	
Will give up monetary policy	34	33.3	54	52.4	
Will not give up monetary policy	44	43.1	33	32.0	
I do not know	24	23.5	16	15.5	
Total	102	100%	103	100%	
<i>Pearson Chi-square</i>	<i>Value = 7.712</i>		<i>Df = 2</i>		<i>Sig. = 0.21</i>

**Table VIII**  
**Loss of a Nation's Monetary Policy, By Undergraduate/Graduate**

	Undergraduate		Graduate		
	Number	%	Number	%	
Will give up monetary policy	65	36.9	29	59.2	
Will not give up monetary policy	71	40.3	15	30.6	
I do not know	40	22.7	5	10.2	
Total	176	100%	49	100%	
<i>Pearson Chi-square</i>	<i>Value = 8.497</i>		<i>Df = 2</i>		<i>Sig. = .014</i>

When the data was analyzed with respect to undergraduate vs. graduate level status, a T-test was significant at the .05 level. Graduate students were more likely to answer the question correctly than undergraduates.

Responses were also divided into two groups by gender. A T-test showed no significant difference between the two groups of responses.

### **The Number of Countries in the Eurozone**

When students were asked the number of countries in the Eurozone, less than 40% of any major answered the question correctly (i.e. 12 countries in the Eurozone).

**Table IX**  
**Number of Countries in the Eurozone, By Major**

	Finance		IB		Other Business Major	
	Number	%	Number	%	Number	%
5	0	0	1	4.2	6	5.4
8	20	22.0	5	20.8	23	20.7
12	27	29.7	9	37.5	29	26.1
15	14	15.4	4	16.7	10	9.0
20	2	2.2	1	4.2	3	2.7
None of the above	8	8.8	1	4.2	9	8.1
I don't know	20	22	3	12.5	31	27.8
Total	91	100%	24	100%	111	100%
<i>Pearson Chi-square</i>	<i>Value = 12.299</i>		<i>Df = 14</i>		<i>Sig. = .582</i>	

Thirty-seven percent of IB students answered the question correctly, while approximately 30 percent of Finance majors answered this question correctly.

These answers are similar to the study performed in the Fall of 2000 when 11 countries were in the Eurozone. In that survey, 40 percent of IB students answered the question correctly, while 27.3 percent of Finance majors answered correctly.

**The European Central Bank**

Students were also asked the following question:

“With the introduction of the Euro, the European Central Bank will be the dominant monetary authority in the area using the Euro.”

- Students could answer: a) True  
 b) False  
 c) I do not know

**Table X**  
**The European Central Bank, By Major**

	Finance		IB		Other Business Major	
	Number	%	Number	%	Number	%
True	62	67.4	13	59.1	62	55.9
False	9	9.8	2	9.1	14	12.6
I do not have any idea	21	22.8	7	31.8	35	31.5
Total	92	100%	22	100%	111	100%
<i>Pearson Chi-square</i>	<i>Value = 3.053</i>		<i>Df = 4</i>		<i>Sig. = .549</i>	

About 67 percent of Finance majors answered correctly as well as 59 percent of IB students. Other Business Majors answered correctly 56 percent of the time. This is a marked increase from the previous Fall of 2000 survey, where the correct responses were 62% (finance), 47% (IB), and 43% (Other Business Majors).

When responses to the question were divided into two groups by gender, a T-test found no significant difference between the responses of females and males.

**Conclusion**

The purpose of this study is to ascertain students’ knowledge of the Euro and the Eurozone. A similar—although not identical survey—was administered to students five years ago.

In that time period, students did not demonstrate any dramatic differences in their responses. A large number of students did know that the Euro was a new currency in several countries in Western Europe. The results to the question which asked for the current value of the Euro were similar to the survey administered five years ago. Fifty to 69 percent of majors knew that nations would give up the use of their own currencies if they became members of the Eurozone. Less than 50 percent of each major realized that a nation in the Eurozone would give up its own monetary policy. Responses to the European Central Bank being the dominant monetary authority in the Eurozone were somewhat higher than the survey given five years ago.

Also, the study suggested that there was no significant difference between the responses of males and females. Finally, when responses were analyzed by GPA and undergraduate vs. graduate status, a significant difference was found.

## SURVEY

### YOUR KNOWLEDGE OF THE EURO

1. **What is your major?**
  - a. Finance.
  - b. International Business.
  - c. Other Business Major. Please state: \_\_\_\_\_
  - d. Other (Non-Business Major). Please state: \_\_\_\_\_
  
2. **The Euro:**
  - a. Is a new currency used in the former Soviet Union.
  - b. Is a new currency in several countries in Western Europe.
  - c. Is a new currency in Eastern Europe.
  - d. I do not know.
  
3. **What is the present approximate value of the Euro with respect to the dollar? (Select the best approximate answer. The following range may be a helpful guide: Select any answer from 1 Euro = \$.50 to 1 Euro = \$2.00.)**
  - a. 1 Euro = \$ \_\_\_\_\_
  - b. I do not have any idea.
  
4. **What is the present approximate value of the Euro with respect to the dollar?**
  - a. 1 Euro = \$1.50.
  - b. 1 Euro = \$1.30.
  - c. 1 Euro = \$1.20
  - d. 1 Euro = \$1.10.
  - e. 1 Euro = \$1.00.
  - f. 1 Euro = \$.95.
  - g. 1 Euro = \$.85.
  - h. I do not have any idea.
  
5. **Approximately how many countries are currently participating in the Euro, or Eurozone?**
  - a. 5
  - b. 8
  - c. 12
  - d. 15
  - e. 20
  - f. The correct number of countries is not stated above.
  - g. I do not know.

6. **Please state a number for question #5 above: \_\_\_\_\_ . It does not have to be one of the answers given.**
  
7. **Nations that use the Euro as its currency gave up the use of their own currency, such as the French franc, the mark, etc.**
  - a. True.
  - b. False.
  - c. I do not know.
  
8. **Nations that use the Euro as its currency gave up the use of their own monetary policy as an economic tool.**
  - a. True.
  - b. False.
  - c. I do not know.
  
9. **With the introduction of the Euro, the European Central Bank will be the dominant monetary authority in the area using the Euro.**
  - a. True.
  - b. False.
  - c. I do not know.
  
10. **Were you born in the United States?**
  - a. Yes, I was born in the United States.
  - b. No, I was not born in the United States.
  
11. **What is your gender?**
  - a. Male.
  - b. Female.
  
12. **Are you fluent in a language other than English?**
  - a. Yes.
  - b. No.
  
13. **What is your approximate G.P.A.?**  
\_\_\_\_\_