A STUDY OF STUDENTS' VIEWS OF MARKET FAIRNESS

John G. Marcis, Coastal Carolina University
Alan B. Deck, Bellarmine University
Daniel L. Bauer, Bellarmine University
Vicki King-Skinner, Coastal Carolina University

ABSTRACT

Although this study was prompted by the recent "Occupy" movements, the paper utilizes two studies on the role of "fairness" in economic situations: one by Kahneman, Knetsch, and Thaler (1986b) and a second by Shiller, Boycko, and Korobov (1991). This study employs eight (8) scenarios used in either the Kahneman et al. or Shiller et al. studies to investigate the existence of differences in the perception of the fairness of markets along both gender lines and major field of study. Data were gathered in an anonymous in-class survey of first-year university students. Overall, male students generally had a more favorable impression of markets than females. Surprisingly, the results of the Business and Non-Business students were mixed on the fairness of pricing.

INTRODUCTION

The typical introductory Economics text discusses "The Three Questions" that any society must address: 1) *What* goods are to be produced?; 2) *How* are those goods to be produced?; and 3) *For Whom* are the goods produced? When it comes to discussing the third question, the typical instructor in the United States focuses on the role played by markets. However, Colander (2003) contends that the current majority of principles textbooks "excludes discussion of a broader set of failures-of-market outcomes: failures in which the market is doing everything it is supposed to be doing, but society is still unhappy with the result" (p. 83). In today's society, recently highlighted by the various "Occupy" movements, many people view the issue as whether the market is "fair", or at least perceived to be "fair".

Kahneman, Knetsch, and Thaler (1986b) studied the role played by the perception of fairness in explaining economic situations. Specifically, the two primary objectives of the study were to identify community standards of price fairness and the possible implications of the rules of fairness for market outcomes. The authors created 18 scenarios and collected data over 14 months in a series of telephone interviews of randomly selected residents of Toronto and Vancouver. The respondents were composed of an approximately equal number of both males and females, were read no more than five of the 18 scenarios, and were asked to respond to each

scenario with the categories "Completely Fair", "Acceptable", "Unfair", and "Very Unfair". In the article, the two favorable responses and the two unfavorable responses were collapsed into the categories of "Acceptable" and "Unfair" to indicate the proportions of respondents who judged the action acceptable or not. Kahneman et al. found respondents had a strong aversion to price rationing (resulting in some price friction), consumers were more tolerant of price changes resulting from a changing cost structure (than price changes attributed to demand considerations), and a general dislike for the use and exploitation of market power. The authors concluded:

> *The findings of this study suggest that many actions that are both profitable in the short run and not obviously dishonest are likely to be perceived as unfair exploitations of market power. Such perceptions can have significant consequences if they find expression in legislation or regulation (Kahneman, Knetsch, and Thaler, 1986b, pp. 738-739).*

Gorman and Kehr (1992) used 16 of the 18 scenarios developed by Kahneman et al., and created six additional contrasting scenarios. The authors used a total of 22 scenarios in a survey mailed to randomly selected business executives. The authors' intent was to determine whether a sample of business executives would respond to the scenarios in a different manner than the general population sample by Kahneman et al. With 154 business executives responding, the authors concluded that business executives have a different perception of market fairness than the general public. Specifically, the business executives responding to the survey were less inclined to judge the profit-maximizing behavior as unfair.

Shiller, Boycko, and Korobov (1991) designed 36 scenarios pertaining to "*fundamental* parameters of human behavior related to the success of free markets" (p. 386, italics in original). The 36 scenarios were partitioned into three sets of 12 and administered in a series of telephone interviews to residents of Moscow and New York City. The responses were categorical in nature, with about one-half of the scenarios having the binary "Yes" or "No" responses and the others having either three or four specified categories. In the paper, the scenarios were grouped into content areas such as "fairness of pricing", "importance of incentives", "the perceptions of speculation", "attitudes towards business", and entrepreneurial activities. For the scenarios pertaining to the fairness of pricing, the authors concluded "the reported evidence suggests there is actually little ground that the Soviets are characteristically more hostile toward free-market prices" (p. 390) and that notions of fairness in pricing are very situation-specific.

Whaples (1995) examined how the exposure to economic principles might influence beliefs regarding pricing in the market system. The author administered a survey consisting of six of the scenarios contained in Shiller et al. to 322 students enrolled in 14 sections of an "Introduction to Economics" course. Students in seven sections received the survey (approximately one-half of the students) during the first week of the semester while the other seven sections received the survey at the end of the semester. Whaples not only compared the

pre- and post-course scores with the corresponding scenarios in the Shiller et al. study but also examined the scores by gender. Regarding the pre- and post-scores, Whaples concluded that exposure to economics seemed "to change many students' minds about what is fair, convincing them that market outcomes are equitable" (p. 310). Initially, relative to the male students, female students were considerably less likely to regard the market outcomes as fair. By the end of the semester "female students were still less likely to consider the market outcomes fair, but the gap had narrowed considerably" (p. 310).

THE SURVEY INSTRUMENT AND ASSOCIATED MATERIAL

The survey instrument had two sections. The first section of the survey requested demographic data from the individual respondent. Specific questions pertained to the respondent's gender, age, ethnicity, and major field of study. The second section of the survey instrument consisted of eight scenarios that were used in either the Kahneman et al. study or the Shiller et al. study. The eight scenarios used in this study are presented as Table 1. Six of the eight scenarios pertained directly to a price increase in the market for a good. Some scenarios referenced demand-side effects, some referenced supply-side effects, and one referenced the effect of an increase in a tax. The two non-price scenarios pertained to the effect of a government-administered price ceiling (Scenario 2) and a government quota allotment (Scenario 5).

Three modifications to the scenarios used in the previous studies were enacted for this study. First, the Kahneman et al. study used a total of 18 scenarios, each respondent was asked no more than five scenarios while the Shiller et al. study used a total of 36 scenarios, with each respondent asked 12 scenarios. This study asked each of the respondents the same eight scenarios. Consequently, the sampling design differs from the previous two major studies. Second, the wording of three scenarios was modified slightly from the original studies to reflect societal changes and contextual changes. The three modifications to the original scenarios are the following. Scenario 1 in Table 1 references the price of "a certain product" increasing "after a natural disaster (for example, a tornado, a hurricane, a flood, or a blizzard)" while the original scenario in Kahneman et al. specifically referenced an increase in the price of "snow shovels" after "a large snowstorm." Although a snow shovel is a product to which residents in Toronto and Vancouver could relate, it is not necessarily an appropriate item for all regions in North America. Scenario 7 in Table 1 was also modified slightly. The original question in the Shiller et al. study was "On a holiday, when there is a great demand for flowers, their prices usually go up." Scenario 7 in Table 1 was rewritten to appear as "Before Valentine's Day, florists usually increase the price charged for red roses." A similar change occurred in Scenario 8 in Table 1 as Shiller et al. used "A new railway line makes travel …" but this reference was changed to "A new highway makes travel …". Third, both Kahneman et al. and Shiller et al. reported the results for each scenario as binary responses. As previously noted, Kahneman et al. collapsed the four

categorical responses into two, "Acceptable" and "Unfair", while Shiller used only "Yes" and "No" as the two possible responses. In this study, respondents were asked to respond to the scenarios on the "0% to 100% continuum," with "0%" indicating "Very Unfair" and "100%" indicating "Very Fair." Since very few issues in life related to personal perception are decided in a binary (that is, "black or white") manner, the continuum was deemed the more robust manner in which to gather information and gauge these perceptions.

The survey was administered anonymously during the second week of the Fall 2011 semester in a 100-level (first year) course, Consumer Economics (ECON 110). This course is viewed as a "selective" in one of the topic areas of the University Core Curriculum, as a student can satisfy this requirement by selecting one of five courses listed. This course was desirable to survey for two reasons. First, students enrolled are typically in the first year of university studies, with no previous coursework in economics principles at the university level. Secondly, since the course is a part of the University Core Curriculum, a wide variety of majors will be represented.

THE SURVEY INSTRUMENT AND ASSOCIATED MATERIAL

A total of 181 survey instruments were used in this study (55 from females and 126 from males). The ages of the respondents ranged from 17 to 30, with a mean of 19.6 years and a median of 19 years. In terms of ethnicity, 128 (71%) of the respondents self-identified themselves as Caucasian, while 43 (24%) respondents self-identified themselves as African-American, and seven (4%) more self-identified themselves as Hispanic (or Latino/Latina). In terms of intended major, 84 (46%) of the students indicated they were planning to major in Business and 97 (54%) planning to pursue Non-Business majors (48 in Liberal Arts, 39 in Fine Arts, eight in Education, and two were "Undecided"). For each of the eight statements in the survey, a t-test for difference between means was conducted along gender lines (that is, male and female) and by major field of study (specifically, Business and non-Business).

Examining Differences in Mean Responses by Gender

Whaples observed that, at the start of the economics course, females "were considerably less likely than men to regard the market outcome as fair" (p. 310). Table 2 allows for the examination of the mean responses along gender lines. As previously noted, six of the eight scenarios pertained directly to price changes while the other two involved government involvement in the market. For the six price-related scenarios, all showed males to have a more favorable view of the role of markets. There are two scenarios in which the difference in means is statistically significant at the 6% level. In both Scenarios 3 and 7 males were more accepting of the price increase for the situation portrayed than females. Scenarios 2 and 5 assessed the respondent's view of government involvement in the market. Scenario 2 pertained to the government installing a price ceiling after a natural disaster. Although not statistically significant at the 10% level, females were generally more accepting of such action than males. Scenario 5

pertained to the government restricting gasoline consumption by limiting the amount of gasoline that could be purchased by consumers. Although not statistically significant at the 10% level, males were more accepting of this form of government involvement in the marketplace.

Examining Differences in Mean Responses by Major

Carrithers and Peterson (2006) describe an educational disconnect in the manner in which the role of markets is presented in institutions of higher learning. Although the authors acknowledge the characterization of the two faculty groups may be overly simplistic, the basic premise of their study is that "business and economics faculty focus on the function of markets, the benefits of market economies, and the conduct of business within market economies while A&S faculty focus on flaws and failures of market economies" (p. 373). The authors fear the pedagogical gap will be harmful to students in that if the student hears only one perspective, it "reduces the abilities of our students in their future roles as citizens and leaders" (p. 375).

This study also analyzed the data in terms of major field of study. Table 2 presents the mean responses for the Business/Non-Business students. There are two price-related scenarios in which the difference between the means is statistically significant at the 10% level, both of which were a moderate surprise. The mean response for Business students in Scenario 6 was larger than that for Non-Business majors. At first, this was not what was expected, *a priori*. However, Kahneman et al. concluded that "Judgments of fairness are susceptible to substantial framing effects" (p. 740) and Shiller et al. noted that "notions of fairness are very situation-specific" (p. 389). The initial clause of Scenario 6 frames the major issue with "Suppose the government wishes to reduce the consumption of gasoline". Here, it is not so much the price increase as for the reason for the tax – an attempt to reduce the consumption of gasoline. Scenario 8 referenced raising rents after a new highway has been built. Surprisingly, Non-Business majors thought this was relatively fairer than the Business majors. One of the two non-price scenarios was statistically significant at less than the 1% level. Scenario 5 addressed the government attempt to reduce the consumption of gasoline by limiting the number of gallons purchased by consumers. Business majors thought this initiative was generally "fairer" than did Non-Business majors.

CONCLUSIONS

The objective of this study was to investigate the existence of differences in the perception of markets along both gender lines and major field of study. This study found male students generally had a more favorable view of markets than female students but that this difference was not particular strong in a statistical framework. This study also found a pronounced difference in the perception of markets between Business and Non-Business majors.

REFERENCES

Carrithers, D.F., & D. Peterson (2006). Conflicting views of markets and economic justice: Implications for student learning. *Journal of Business Ethics*, 69(4), 373-386.

Colander, D. (2003). Integrating sex and drugs into the principles course: Market failures vs. failures of market outcomes. *Journal of Economic Education*, 34(1), 82-91.

Gorman, R.F., & J. B. Kehr (1992). Fairness as a constraint on profit-seeking: Comment. *American Economic Review*, 82(1), 355-358.

Kahneman, D., J. Knetsch & R. Thaler (1986a). Fairness and the assumptions of economics. *Journal of Business*, 59(4, Part 2), S285-S300.

Kahneman, D., J. Knetsch & R. Thaler (1986b). Fairness as a constraint on profit-seeking: Entitlements in the market. *American Economic Review*, 76(4), 728-741.

Prasad, J.N., N. Marlow & R.E. Hattwick (1998). Gender-based differences in perception of a just society. *Journal of Business Ethics*, 17(3), 219-228.

Shiller, R.J., M. Boycko & V. Korobov (1991). Popular attitudes toward free markets: The Soviet Union and the United States compared. *American Economic Review*, 81(3), 385-400.

Whaples, R. (1995). Changes in attitudes among college economics students about the fairness of the market. *Journal of Economic Education*, 26(4), 308-313.

Table 1
THE EIGHT 'FAIRNESS' SCENARIOS

For each of the following questions, please use the following scale:

Very Unfair	**Unfair**	**Moderately Unfair**	**Fair**	**Moderately Fair**	**Very Fair**
0%	**20%**	**40%**	**60%**	**80%**	**100%**

Please indicate your ***perception of the fairness*** of each statement below by writing a number between "0%" and "100%" in the blank to the left of the statement. Please use the numbers between "0" and "100" to reflect the degree to which you agree with the statement. Specifically, if you feel the situation described in the statement is *very unfair* then you should write a number in the blank close to "0" or if you feel the situation described is *generally unfair* then you should write some other number, say "30". Alternatively, if you feel the situation described in the statement was *very fair* then you should write a number close to "100" in the blank or if you feel the situation described was *generally fair* then you should write some other number, say "70".

1.	A store has been selling a certain product for $15. The morning after a natural disaster (for example, a tornado, a hurricane, a flood, or a blizzard) the store raises the price to $30. *To what degree is the increase in this price "fair"?* (Kahneman, et al., #1)
2.	In the situation described above, assume the government establishes a maximum price that limits the price that a business can charge for the product to the pre-disaster price. *To what degree is the government's action to limit the price increase "fair"?* (Shiller, et al., #B3)
3.	A small factory produces tables and sells all that it can make at a price of $200 apiece. Because of reductions in the price of materials, the cost of making each table recently decreased by $20. The factory

	does not change its price of the tables. *To what degree is the decision of the business "fair"?* (Kahneman, et al., #11B)
4.	A small factory produces tables and sells all that it can make at a price of $200 apiece. In fact, the factory cannot produce enough tables to satisfy all the people who want to purchase one. The factory decides to raise the price of the table by $20 even though there was no change in the cost of producing the tables. *To what degree is the increase in this price "fair"?* (Shiller, et al., #B11)
5.	Suppose the government wishes to reduce the consumption of gasoline. The government decides to limit gasoline stations from selling more than five gallons of gasoline to any one person. *To what degree is the government decision to limit the sale of gasoline "fair"?* (Shiller, et al., #C4-1)
6.	Suppose the government wishes to reduce the consumption of gasoline. The government decides to place a major tax on gasoline that will increase the price of gasoline. *To what degree is the government decision to place a tax on gasoline "fair"?* (Shiller, et al., #C4-2)
7.	Before Valentine's Day, florists usually increase the price charged for red roses. *To what degree is this increase in price "fair"?* (Shiller, et al., #B2)
8.	A new highway makes travel between city and summer homes positioned along the highway substantially easier. Accordingly, summer homes along the highway become more desirable and rents on these homes have increased. *To what degree is the increase in the rental price "fair"?* (Shiller, et al., #A9)

Table 2
RESPONSE SUMMARIES AND TESTS OF HYPOTHESES

	Situation/Scenario	Cohort	Characteristic: Mean	St. dev.	$H_1: \mu_x - \mu_y \neq 0$ Pr > | t |
1.	Is it fair for prices to increase after a natural disaster?	**Overall**	**34.867**	**26.018**	
		Females	31.091	24.790	
		Males	36.516	26.464	0.198
		Business	34.167	26.399	
		Non-Bus	35.474	25.807	0.737
2.	Should government limit price increases after a natural disaster?	**Overall**	**61.271**	**24.262**	
		Females	64.546	22.736	
		Males	59.841	24.851	0.231
		Business	59.821	22.461	
		Non-Bus	62.526	25.771	0.456
3.	If the production costs decrease, is it fair if product price does not change?	**Overall**	**61.547**	**22.969**	
		Females	56.636	24.945	
		Males	63.691	21.810	***0.057***
		Business	61.964	21.496	
		Non-Bus	61.186	24.279	0.821
4.	In the presence of a shortage, is it fair for a business to increase price?	**Overall**	**59.337**	**25.212**	
		Females	56.273	26.566	
		Males	60.675	24.587	0.281
		Business	60.000	24.593	
		Non-Bus	58.763	25.850	0.743
5.	To encourage conservation, is it fair for the government to limit the number of gallons of gasoline purchased?	**Overall**	**27.534**	**24.969**	
		Females	23.273	21.714	
		Males	29.135	26.145	0.147
		Business	33.214	26.815	
		Non-Bus	22.278	22.164	***0.003***
6.	To encourage conservation, is it fair for the government to place a tax on gasoline to raise the price?	**Overall**	**26.193**	**22.945**	
		Females	25.818	19.501	
		Males	26.357	22.328	0.885
		Business	30.833	22.722	
		Non-Bus	22.175	22.443	***0.011***
7.	Is it fair to raise the price of flowers before Valentine's Day?	**Overall**	**63.232**	**26.144**	
		Females	55.818	28.460	
		Males	66.468	24.487	***0.011***
		Business	64.167	26.112	
		Non-Bus	62.423	26.281	0.656
8.	Is it fair to raise rents after a new highway is built?	**Overall**	**66.155**	**22.856**	
		Females	62.636	25.219	
		Males	67.691	21.672	0.172
		Business	63.036	24.606	
		Non-Bus	68.856	20.980	***0.088***