FAIR TRADE COFFEE:

DO FAIR TRADE ANNOUNCEMENTS AFFECT STOCK PRICE?

By

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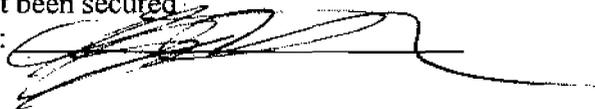
Abstract

With the increasing popularity of Fair Trade coffee in the last decade, this paper attempts to analyze whether or not a Fair Trade announcement will directly affect the company's stock price through an event study using multiple regression. However, before analyzing the data collected from the event, it is important to understand what Fair Trade encompasses and the specific details regarding its formation. Along with this background information, important arguments for and against Fair Trade will be examined to provide an understanding of the economic principals and justification surrounding Fair Trade. This thesis then analyzes the results obtained from the event study and attempts to answer whether or not Fair Trade announcements affect stock price.

Coffee as a Commodity

Currently, coffee as a commodity in the United States has a total trade volume by dollar that totals close to $10 billion per annum. When discussing Fair Trade issues, most arguments will refer to the North as consumers and the South as producers. This stems from the fact that while it is produced by over 50 countries, with as many as 25 million farmers, these producing countries are primarily located in South East Asia, South America, and Africa (Wilson, 2006). For many of the developing countries who produce coffee for export, the total amount of revenue generated from export can reach up to half of all trade revenue per year.

When speaking about market price for coffee beans, it is important to understand that there are two main types of coffee beans that are harvested: Arabica and Robusta. Each has a unique flavor and specific characteristics. Arabica is the milder of the two types, and is grown at much higher altitudes than Robusta. Because of its milder taste, it also brings in a higher

premium than its counterpart. Robusta on the other hand, is a full flavored coffee, and is typically used in blends, causing it to be the more commonly grown variety.

<u>What is Fair Trade?</u>

Within the last decade, Fair Trade coffee has seen a great increase in the amount of products that are certified under the Fair Trade label in the United States. As of now, each of the major four coffee distributers (P&G, SaraLee, Kraft, and Nestle) and Starbucks, offer some type of Fair Trade coffee in their product mix. Because of the growing popularity of Fair Trade, it is important to have a clear understanding of what it is. According to FINE, which encompasses four of the largest Fair Trade organizations: FLO, International Federation for Alternative Trade, Network of European World Shops, and the European Fair Trade Association, Fair Trade can be defined as,

> A trading partnership based on dialogue, transparency, and respect that seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of marginalized producers and workers – especially in the South (Weber, 2007).

Fair Trade really has its roots in the "Ethical Consumption" movement, where consumers try to use purchasing power as a means to change questionable business practices (Linton, 2003). The overall strategy in this movement has been threefold: 1) provide a way that is relatively easy for the consumer to locate and purchase coffee that will ensure a living wage to the coffee growers; 2) increase consumer demand to a level that is suitable for retail outlets to feel compelled to offer Fair Trade items in their product mix; 3) create internal pressure so that large institutions make Fair Trade coffee their coffee of choice (Linton, 2003). While many would like to agree with the

principals behind this concept, it is still questionable as to whether or not the consumer is willing to pay a higher premium for this type of product.

The History of Fair Trade Certification

As was discussed in the previous section, Fair Trade has its roots in the Ethical Consumption movement, which began in 1946. While Fair Trade Coffee has only been recognized in the United States within the last decade, the movement really started with the creation of Alternative Trade Organizations (ATO's) in Europe. ATO's, such as Ten Thousand Villages (1946), Fair Trade Organisatie (1967), and Global Exchange (1988), originally looked to create an alternative market, where consumers would have access to the disadvantaged producers, rather than reforming conventional trade practices (Linton, 2003). While these organizations created awareness, the real movement began when Fair Trade product labeling was initiated in 1988.

In 1988, Max Havelaar launched the first Fair Trade initiative in the Netherlands. Rather than trying to offer Fair Trade products in specialty shops, the Max Havelaar seal sought to place a unique image on companies' products if the company agreed to some portion of their coffee under the terms associated with Fair Trade (Linton, 2003). This new concept introduced Fair Trade to a much wider variety of consumers, and created a certification program that is similar in nature to what currently exists under the Fairtrade Labeling Organization (FLO).

In 1997, all Fair Trade labeling initiatives were united under FLO to create unity and more efficiency. The FLO seeks to standardize the labeling of Fair Trade Coffee, and keeps an updated register that can be accessed through their website, www. Fairtrade.net. The goal of FLO is to "Provide strategic gains for producers through the stabilization of coffee prices,

increased incomes, greater security of land ownership (thus an increased ability to avoid absorption into the system of wage labor), and more sustainable ecologies of production" (Fridell, 2008). Currently, FLO's criteria for Fair Trade Labeling consists of the following:

1) Purchase directly from small farmers organized into democratically managed cooperatives.

2) Guarantee a floor price ($1.26/lb) when market prices are low and also an additional premium for organic products.

3) Importers are obligated to offer growers a pre-harvest credit. The credit is offered as up to 60% of the contract price.

4) Promote sustainability through long-term relationships of the growers and importers.

Fair Trade Distribution

With the focus of Fair Trade products being on small cooperatives, the supply chain for coffee is significantly reduced. The idea is that by reducing the supply chain, more money will wind up in the hands of the small cooperative farmers, as they will be forced to take on more of the marketing and processing operations (Fridell, 2008). The conventional distribution chain is shown below in Figure 1, which highlights the difference between the amount of money the small producer receives and the amount the final retail sale receives. It is important to point out that the cooperative in figure 2 replaces the middlemen in figure 1 and combines some of the processing and exporting roles into one for efficiency.

```
small producer ($0.20-0.40/lb.)          plantation worker ($3/day)
            ↓                                        ↓
local middleman ($0.60/lb.)               large landowner  ($0.70/lb.)
            ↓
  processor ($0.70/lb.)
                          exporter ($0.85/lb.)
                                  ↓
                          importer ($1.05/lb.)
                                  ↓
                    roaster-distributor ($4.00-6.00/lb.)
                                  ↓
                 restaurateur or retailer ($7.00 -12.00/lb.)
                                  ↓
                              consumer
```
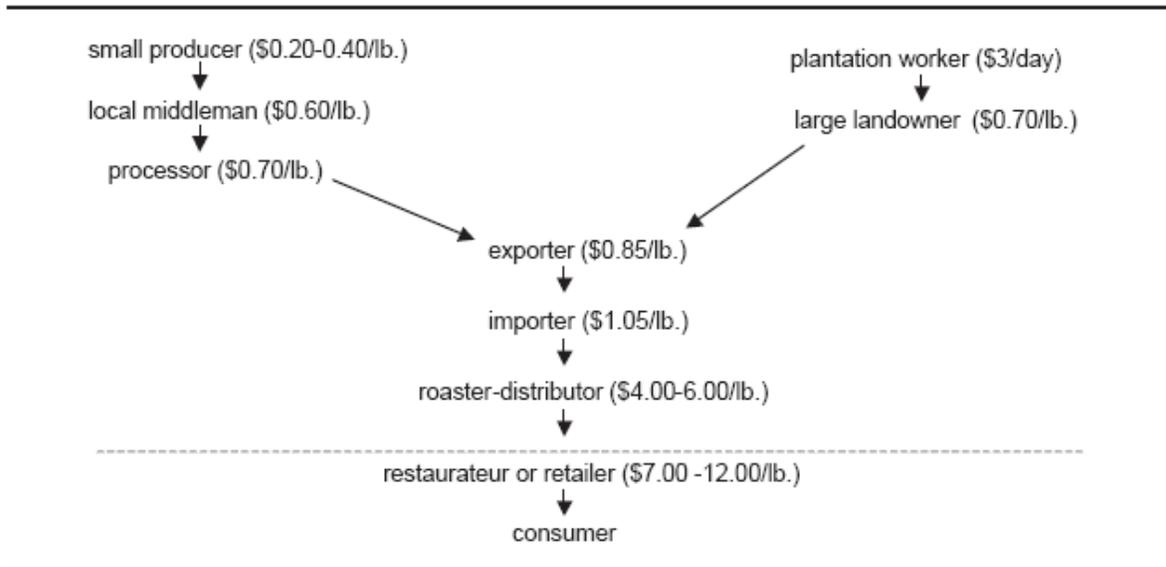
Figure 1 (Linton, 2003)

In contrast is Figure 2, which highlights the Fair Trade Distribution chain.


```
                producer
                    ↓
              cooperative
                    ↓
                importer
                    ↓
           roaster-distributor
                    ↓
          restaurateur or retailer
                    ↓
                consumer
```
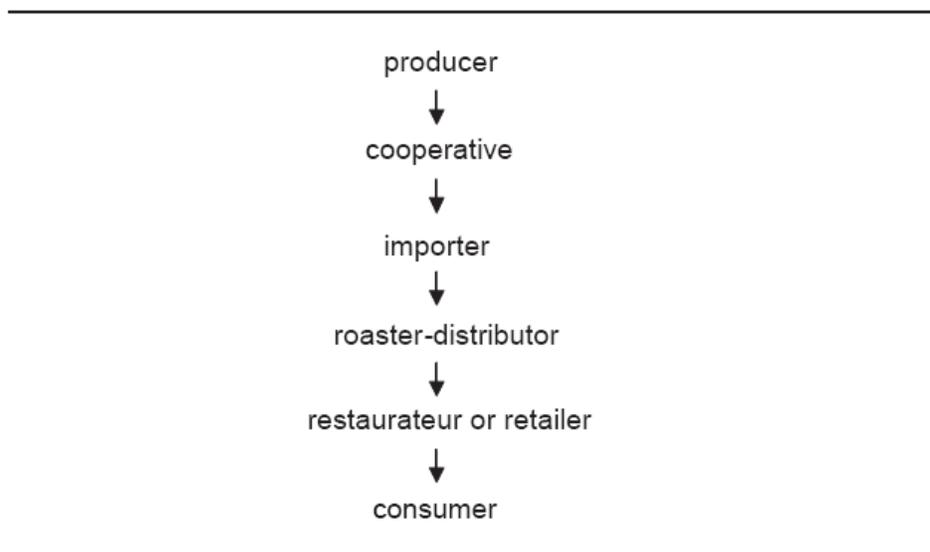
Figure 2 (Linton, 2003)

In Figure 2, which highlights the Fair Trade model, there is a very distinct difference between Free and Fair Trade. The difference lies with the middlemen and exporters being cut out of the equation to allow for more efficiency and money to flow to the cooperative producers. Free Trade operates under the notion that the producers/cooperatives will try to establish an equilibrium price that satisfies both demand and supply conditions. However, with Fair Trade, an artificial price is set that allows farmers to earn a living wage that does not take into consideration the efficient market price. This being said, even though an artificially high price may be instituted, it is still up to the producers to sell their product to the importers. However, currently, Fair Trade cooperatives are only able to sell about half of their supply of Fair Trade coffee at the Fair Trade price (Linton, 2003).   However, one of the main arguments for Fair Trade revolves around economic sustainability.

In a recent example of how cutting out the intermediaries has benefited the growers, the Nestle Corporation can be examined. In 2002, Nestle adopted a direct buying program which attempted to benefit local growers in 11 different developing countries. In specific countries where Nestle has a factory, Nestle has set up stations to directly purchase 110,000 tons of coffee from the producers.   In Thailand, Nestle reported that it had paid 1.5 to 2 times as much as the going rate for its direct buy coffee. The effects of this program are still uncertain, but it is clear, however, that a larger portion of the transaction stayed in the hands of the local growers (Fridell, 2008).
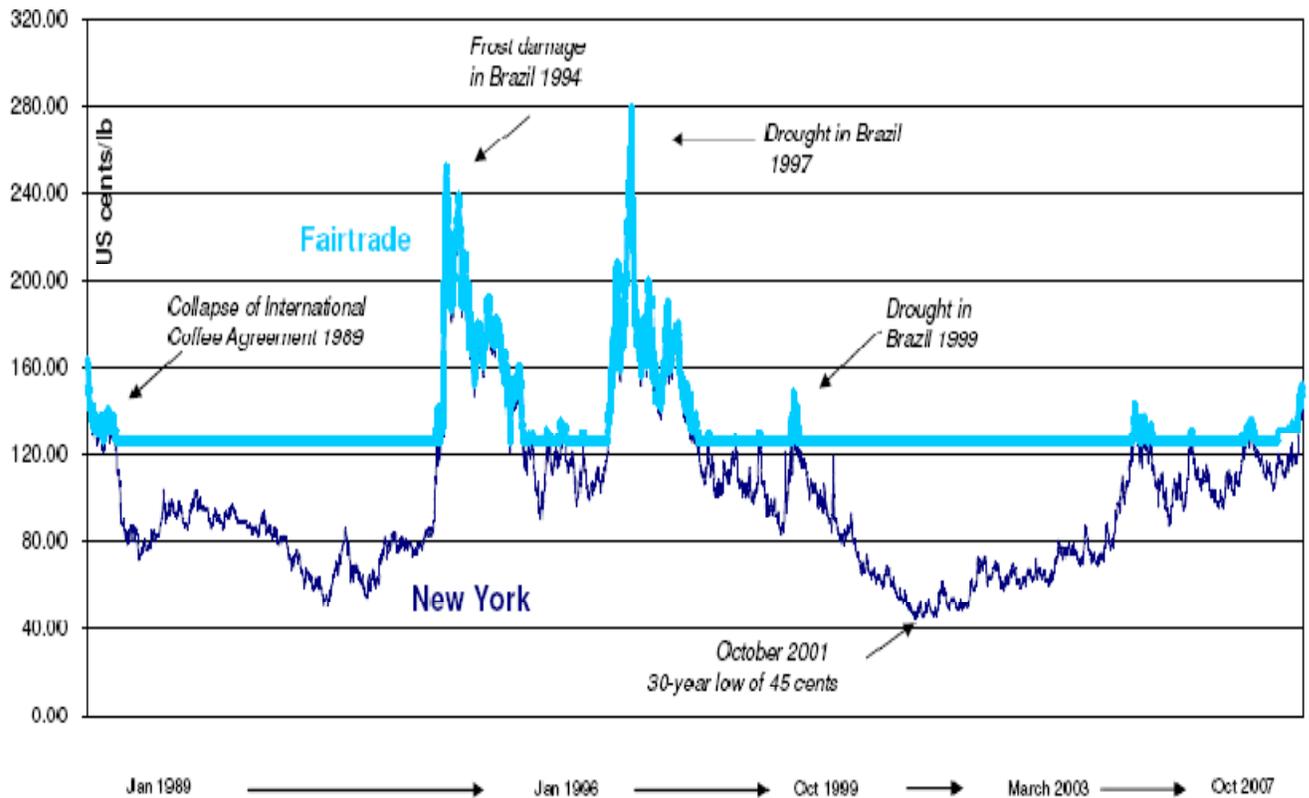
Fair Trade Pricing

The second criterion is of importance and worth examining, as this guaranteed minimum price draws major criticism from Fair Trade opponents. Currently, FLO calculates this

price by determining a fair price that will allow the grower to cover the cost of sustainable production (FLO, 2009). For Arabica, the minimum price is set at $1.25 per pound. If the product is organic, it is $1.50 per pound. If the market price is above the minimum price, the minimum price rises accordingly, and becomes equal to the market price. Additionally, the importers are required to pay a price premium of $.15 per pound, which is used for education, community development, and other agreed upon uses. Along with this, companies must also pay FLO $.10 per pound to label their products.

When examining Figure 3 and Figure 4, one will notice that for the majority of the time, the market price for both Robusta and Arabica blends is significantly lower than the minimum price for Fair Trade labeling. However, in the last couple of years, the gap has narrowed, as the market price is becoming higher.

The Arabica Coffee Market 1989-2007: Comparison of Fairtrade and New York Prices

NB Fairtrade price = Fairtrade minimum price of 121 cents/lb + 10 cents/lb premium*
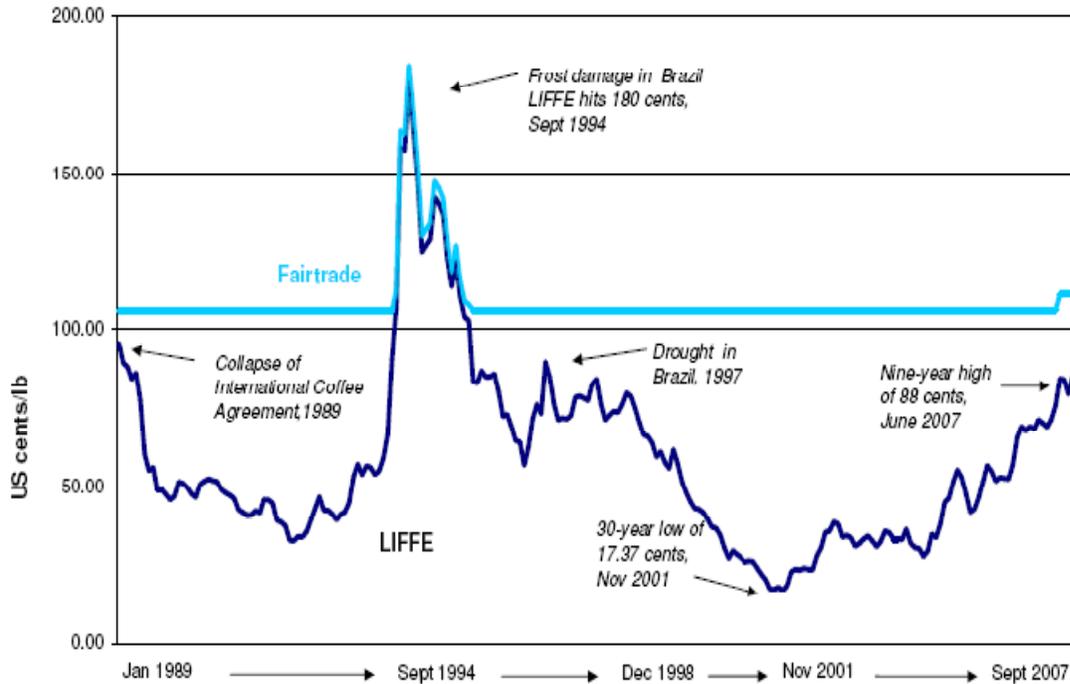When the New York price is 121 cents or above, the Fairtrade price = New York price + 10 cents
* Premium was increased from 5 cents/lb on 1 June 2007
The NY price is the daily closing price of the second position Coffee 'C' futures contract at the NY Board of Trade   © Fairtrade Foundation

Figure 3   http://www.fairtrade.net/fileadmin/user_upload/content/Arabica_Price_Chart_89-07_01.pdf

FAIRTRADE

Robusta Coffee Market 1989 - 2007: Comparison of Fairtrade price and London LIFFE price

Frost damage in Brazil
LIFFE hits 180 cents,
Sept 1994

Fairtrade

Collapse of
International Coffee
Agreement 1989

Drought in
Brazil. 1997

Nine-year high
of 88 cents,
June 2007

30-year low of
17.37 cents,
Nov 2001

LIFFE

Jan 1989 ——→ Sept 1994 ——→ Dec 1998 ——→ Nov 2001 ——→ Sept 2007

NB The Fairtrade price = Fairtrade minimum price of 101 cents/lb + 10 cents/lb Fairtrade premium*
When the LIFFE price is 101 cents or above, then the Fairtrade price = LIFFE price + 10 cents
LIFFE price is the monthly average of the daily closing price, converted from $/tonne
*Premium was increased from 5 cents/lb on 1 June 2007
©Fairtrade Foundation

Figure 4 http://www.fairtrade.net/fileadmin/user_upload/content/Robusta_Price_Chart_89-07.pdf

As can be seen with the above graphs, the market price is on average, lower than the standard Fair Trade price.

A common argument that surfaces when discussing Fair Trade coffee, is the issue of a price floor. Many equate this guaranteed minimum Fair Trade price to a price floor, which would create excess supply when the Fair Trade price is above the market price. However, it is important to point out that this arrangement is purely voluntary and is not enforced by any authority or government, as are traditional price floors. Instead, the coffee market should be divided into two segments, Fair Trade coffee and standard coffee. The producers recognize that

certain consumers are willing to pay more for Fair Trade coffee. At the same time, these

consumers become price sensitive, as they can easily use standard trade coffee as a suitable

substitute. In the below graph, a single coffee seller is treated as a monopolist in the market to

compare the two types of traded coffee.
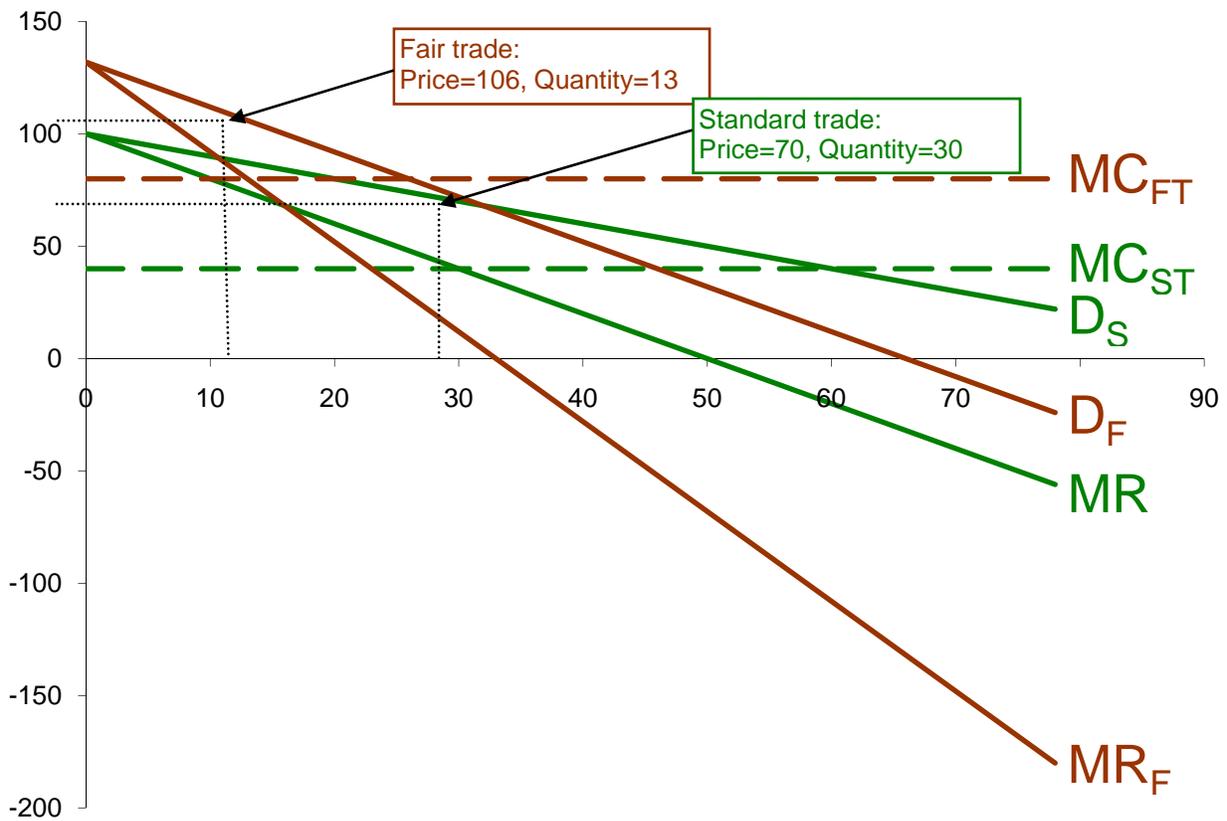
When comparing the two types of coffees, fair and standard trade, it is important to

understand that the Fair Trade coffee will have a higher marginal cost for the seller, due to the

guaranteed minimum price it must pay for the coffee. However, this graph illustrates that even

under this assumption, the seller would find it optimal to sell both types of traded coffee. For the

seller, the optimum price-quantity relationship for Fair Traded coffee would be at a lower

quantity, but at a higher price point. Note, the numbers used are for illustrative purposes only,

but still demonstrate that the consumer preferences still play a major role in the decision of the firm.

Excess supply has occurred, and can be seen in 1995, when Fair Trade producers had a capacity for 250,000 metric tons of coffee, when supply was only 11,000 metric tons (Weber, 2007). This meant that only 13% of the production of Fair Trade certified products were purchased during 1995. Additionally, this has been a key problem for FLO in recent years, as was evident in 2002 when they were forced to limit any new members from being certified. In 2002, FLO estimated that, "The supply of Fair Trade certified coffee in Latin America, Asia, and Africa was seven times greater than the quantity exported through Fair Trade Channels" (Murray, 2003). Opponents argue that, the minimum price limits new entrants from coming into the Fair Trade market, which would ultimately decrease price through a new influx of supply in the marketplace. This ultimately causes the increased competition between the producers over the relatively few Fair Trade contracts that exist (Weber, 2008). This creates barriers to entry, which may end up hurting many of the farmers that it strives to assist.

Quality as an Issue

One complaint amongst many coffee drinkers is that the quality of Fair Trade coffee varies widely. The fact that the growers are guaranteed a minimum price for their product may have unintended consequences, one being that there is no incentive to improve quality

(The Economist, 2006). However, at the same time, a minimum price does not guarantee that the growers will sell its product to those seeking to trade under the FLO's agreements. Instead, many of the farmers will resort to selling their product at the lower market price, as they are unable to sell their entire production as Fair Trade. According to Margaret Levi and April

Linton, who conducted research regarding quality issues of Fair Trade Coffee, for "most customers, quality trumps doing the right thing" (2003). According to a Whole Foods Survey, "85 percent of its customers were willing to pay a higher price for high quality and freshness". This highlights the fact that Fair Trade coffee must also represent itself as being of high quality. While opponents argue that a minimum price will take away the growers' willingness to produce high quality coffee, there is still a large emphasis placed on "quality" as the key factor in the consumer buying behavior. In the same survey, "Half the respondents said they would buy Fair Trade certified coffee, and pay $1.00 - $2.00 per pound more for it, assuming high quality" (Linton, 2003). To the growers, it is important to recognize that Fair Trade coffee must still be of the same quality, or there will not be demand for the product.

Introduction to the Event Study

In the world of financial markets, the idea of efficient markets leads to research methodology which attempts to analyze the effects of new information on the stock prices of firms. The idea behind this is that, "If security prices reflect all currently available information, then price changes must reflect new information" (Bodie, 2009). This being the case, one could attempt to measure the effect that new information has on the stock price by analyzing the specific date range in question. This is what an event study attempts to accomplish. Typically one will see event studies come in the form of good news announcements, which seek to find the effect of announcements, such as dividends or higher than expected earnings for the quarter or year. Along with this, however, are the bad news announcements, which can take the form of a law suit, lower than expected earnings, or any other perceived risk to the company.

When attempting to analyze the impact of a single news announcement, it can be difficult to pinpoint what the actual trigger may be. This is because throughout the day, stock prices will tend to fluctuate based on several different announcements, even of announcements which are not directly related to the individual firm. In order to isolate the abnormal return that is a result of the new announcement, one must establish a proxy for what the stock would have been in the absence of the event in question. To do this, one can use the market model to attempt to estimate what the stock price should have been in relation to a benchmark, such as the S&P 500. The market model was used in this particular event study, however, one could just as easily use CAPM, or one could compare the related stocks of the firm in question in accordance with size, book to market, and other relative performance measures. The abnormal return is then calculated as the difference between the stock's closing price and this proxy, which is obtained through such measures as the market model.

The market model is the typical method that is used to calculate abnormal returns. The market model is described as:

$$r_t = a + b r_{Mt} + e_t$$

In the equation, r_t is the stock return given during a specific period in time t. Also, r_{Mt} is the market's rate of return during the period, which is typically the return of a specific index such as the S&P 500 or the Wilshire 5000. For the following event study, the S&P was used as the market return. The variable, b, is known as the firm's beta, and is a measure of how sensitive the firm's returns are to the market returns. Alpha, which is denoted as a, is a measure that represents the average rate of return that the firm would realize in a period with a zero market return (Bodie, 2009). Lastly, e_t, is the representation of the abnormal return, which is the unexpected part of the return on date t. On a date with an important event, e_t will have a

systematic, event-driven component as well as random component. The point of an event study is to test whether the systematic component is nonzero. In the following event study, abnormal return is often used interchangeably with the term "excess return".

In order to find the abnormal return, the equation can be rewritten as:

$$e_t = r_t - (a + br_{Mt})$$

From this equation, it can be seen that the abnormal return is the return that is, "over and above what one would predict based on broad market movements in that period, given the stock's sensitivity to the market" (Bodie, 2009).

Description of the Data Used for the Fair Trade Event Study

In the above section, it was noted that in order to find the abnormal return, one would need to obtain the historical closing prices of a market index and for the individual firm. For the following event study, the S&P 500 index fund (^GSPC) was used as a measure of the market return. Additionally, each individual firm's closing stock price which was obtained included adjustments for dividends and stock splits (if any). All data was obtained from finance.yahoo.com, under the historical information section.

Description of the Fair Trade Event Study

As was described above, an event study seeks to establish the abnormal return of a stock in relation to some type of news announcement. In theory, if good news is announced, the market will act accordingly and will show some type of positive abnormal return. This event study seeks to establish whether or not a Fair Trade coffee announcement has an effect on the stock price of the mentioned firms. By Fair Trade coffee announcement, what is meant is any

news article that either announces that a company will begin carrying a line of Fair Trade coffee product or if an article directly mentions Fair Trade coffee in relation to the individual firm. As can be seen on the next three pages, there were 47 separate news announcements that were examined for this particular event study.

This event study seeks to answer whether there is an effect on the stock price of the firms mentioned and can be summarized as:

$$H_0 = \text{Event Has No Effect}$$

$$H_a = \text{Event Has Some Effect}$$

To start the event study, the first thing that was done was an export of all historical closing prices for the firms mentioned in the announcement. The relevant sample size was 180 days prior to the event date in question for each of the 47 events being analyzed. However, because of this requirement, several companies were eliminated due to insufficient data points. These included: #29 P&G (repeat omitted), #34 Einstein Brothers, #37 Noah's Bagels, and #40 Peet's Coffee. For Einstein Brothers, they had adopted Fair Trade coffee prior to being publically traded. This was also the case for Peet's and Noah's bagels. This meant that there were only 43 event announcements that were used. The companies that were included in the event study are: Wal-Mart, McDonald's, Starbucks, SaraLee, P&G, Kraft, Nestle, Safeway, Whole Foods, Green Mountain Coffee Growers (GMCR), and Albertsons. The big 4 coffee producers in the world include SaraLee, P&G, Kraft, and Nestle. It is important to note that there were 10 announcements which were considered the first time in which the company announced it was going to begin carrying Fair Trade coffee. These include #8 Starbucks, #10 P&G, #14 Kraft, #23

Nestle, #25 Safeway, #26 GMCR, #27 Albertsons, #32 McDonalds, #38 Sam's Club, and #39 Wal-Mart.

After the event date was established and the 180 historical prices were exported to Microsoft Excel, a regression was then run on the data. To run the regression, first the daily percent return was first calculated for both the individual company's stock price and the S&P 500 closing stock price. This was done using the equation:

$$R_t = \frac{P_t - P_{t-1} + D_t}{P_{t-1}}$$

Where P_t is equal to the closing stock price. D_t is the additional paid out dividend, if any.

After the daily percentage returns, a new column was added which indicated a dummy variable. For this column, each cell was equal to 0, except for when the cell was on the event date, which in that case, it was equal to 1. For the regression, Excel's Data Analysis function was used, which enables multivariable regressions to be calculated. For the regression, the dependent variable (y) was set equal to the daily percentage returns of the individual firm. The independent variables (x_1 and x_2) were set equal to the daily percentage returns of the S&P 500 and the Dummy Variable. The regression then gave Alpha, Beta, and the Abnormal Return. This was done for each event and for each mentioned firm within the event, totaling 66 separate regressions. It is important to point out that while there were only 43 separate events involved in this study, several of the events had multiple firms mentioned in the event.

After each of the 66 regressions were run, it was then important to determine whether or not there was any significance to the event. This test was based on Jonah B. Gelbach's and Jonathan Klick's, *Valid Inference in Single-Firm, Single-Event Studies Used in Scholarship and*

Securities Litigation, which proves the that the statistical test based on empirical values is correct. To decide whether or not the null hypothesis could be rejected, the absolute values of the abnormal returns were first calculated. After the absolute values were calculated, the data points were then sorted from largest to smallest. To determine the significance of the data, the 95% confidence interval was determined, by finding the critical value (CV) as equaling the 9th largest absolute value of the abnormal returns estimated using the market model. The 9th largest was used, as $\frac{9}{180}$ = .05. This means that in order for the announcement to have had an effect, meaning one could Reject the Null Hypothesis, the abnormal return obtained from the regression would have to exceed the CV. This was done for each of the 66 regressions, and the results can be seen below.

Event Announcements (47) Used for Data Collection:

	Source	Title	Author	Company's Named	Announcement Date
1	NYT	Fair Trade in Bloom	Andrew Downie	Sam's Club (walmart), McDonalds, Starbucks	10/2/2007
2	NYT	And Then There Was the Food	Kim Severson	McDonald's	10/1/2008
3	NYT	In Brooklyn, Hipsters Sip 'Fair Trade' Brews	Liza Featherstone	McDonald's, Starbucks	4/22/2007
4	NYT	Fair Prices for Farmers: Simple Idea, Complex Reality	Jennifer Alsever	McDonald's	3/19/2006
5	NYT	Venti Capitalists	P.J. O'Rourke	Starbucks	12/16/2007
6	NYT	Business; Global Issues Flow Into America's Coffee	Kim Bendheim	Sara Lee, P&G, Kraft, Nestle, Starbucks	11/3/2002
7	NYT	Helping the Third World One Banana at a Time	Julia Moskin	Wild Oats, P&G, Sara Lee	5/5/2004
8	NYT	Starbucks Will Buy Beans at Premium		Starbucks	4/11/2000 *
9	NYT	Original Team Tries to Revive Starbucks	Brad Stone	Starbucks	10/30/2008
10	NYT	P&G Starts to Sell Fair Trade Coffee		P&G	9/15/2003 *
11	WSJ	A Global Effort for Poor Coffee --- Fair Trade Movement's Strateggy Is to Bypass Middlemen	Jim Carlton	Safeway	11/23/1999
12	WSJ	Sleepless in Seattle		Starbucks	3/28/2001
13	WSJ	Bitter Brew: An Oversupply of Coffee Beans Deepens Latin America's Woes	Peter Fritsch	Starbucks	7/8/2002
14	WSJ	Kraft Foods to Sell Fair Trade Coffee In Boon to Growers		Kraft, Sara Lee, P&G, Starbucks	10/8/2003 *(kraft)
15	WSJ	is Your Grocery List Politically Correct	Katy McLaughlin	Starbucks, Kraft, P&G	2/17/2004
16	WSJ	What Price Virtue?	Steve Stecklow	Whole Foods, Starbucks, P&G	6/8/2004
17	WSJ	Asked to Be Charitable, More CEOs Seek to Aid Their Business as Well	Carol Hymowitz	Starbucks	2/22/2005
18	WSJ	Brazil Looks to Tap U.S. Coffee Craze	Alastair Stewart	Nestle, Sara Lee, P&G, Walmart	5/25/2005
19	WSJ	Do Hot Coffee And Wobblies Go Together	Kris Maher	Starbucks	3/21/2006
20	WSJ	Udder Madness		Starbucks	1/20/2007

#	Source	Title	Author	Company	Date
21	WSJ	Brewing Conflict: Ethiopia Battles Starbucks Over Rights to Coffee Names; Chain's Image Rattled By Trademark Spat; Hints of Chocolate, Rum	Janet Adamy	Starbucks	3/5/2007
22	WSJ	Enterprise: Tours to Fair - Trade Farms Help Coffee Sellers Spread Word; Trip Takers Embrace Mission - and Become Devoted to the Products	Simons Covel	Walmart, Starbucks	3/11/2008
23	BBC	Nestle Launches Fair Trade Coffee		Nestle, P&G	10/7/2005 *(nestle)
24	LA Times	Nestle Plans Fair Trade Coffee	Alan Beattie	Nestle, Kraft	10/10/2005
25	TransFair/AP	Seattle's Best Coffee Signs Agreement with Safeway to Offer Fair Trade Organic Coffee		Seattle's Best (AFC Entterprises, AFCE), Safeway	8/9/2001 *
26	TransFair/AP	Wild Oats Markets, Inc. and Green Mountain Coffee Roasters Launch Nation's Leading Organic Fair Trade Coffee Program in Wild Oats Stores		Wild Oats, GMCR	10/10/2002 *
27	TransFair/AP	Albertsons and Equal Exchange Team up to Please Consumers and Small Farmers		Albertsons	1/29/2003 *
28	TransFair/AP	Hyatt Hotels and Resorts offer Starbucks Commitment to Origins Coffee		Starbucks	2/26/2003
29	TransFair/AP	Millstone Coffee Launches New Signature Collection		P&G	9/15/2003 *
30	TransFair/AP	Millstone Coffee Brings Social and Environmental Change to the Coffee Aisle		P&G	8/3/2004
31	Business Wire	Bruegger's Selects Green Mountain Coffee Roasters as National Supplier		Brueggers(private), GMCR	10/4/2004
32	TransFair/AP	McDonald's Restaurants in New England and Albany, New York to Introduce Newman's Own Organics Coffee from Green Mountain Coffee Roasters		McDonald's, GMCR	10/27/2005 *
33	TransFair/AP	Millstone® Coffee Expands Commitment to Social Responsibility with Three New Organic, Fair Trade Certified™ Blends		P&G	6/22/2006
34	TransFair/AP	Partner Press Releases		Einstein Bros.	9/20/2006 *
35	TransFair/AP	Green Mountain Coffee Roasters Partner with PBS to launch PBS Blend, A Fair Trade Certified Organic Coffee		GMCR	12/6/2006
36	TransFair/AP	Green Mountain Coffee Roasters Extends Agreement with McDonald's Restaurants to Offer Newman's Own Organics Coffee in New England and Albany		McDonalds, GMCR	1/25/2007
37	PRNewsire	Noah's Bagels Supports Coffee Farmers Worldwide, Introduces Organic, Fair Trade Certified Coffee		Noahs Bagels (NWRG)	2/27/2007 *
38	TransFair/AP	Fair Trade is in the Can: Sam's Club Converts Private Label Member's Mark Premium Ground Coffee to Fair Trade Certified™		Sam's Club (Walmart)	10/1/2007 *
39	TransFair/AP	Wal-Mart Launches Exclusive Sam's Choice Line of Organic, Rainforest Alliance and Fair Trade Certified Coffees		Walmart	4/1/2008 *
40	TransFair/AP	Peet's Coffee Company Launches Fair Trade Certified Coffee	Nina Luttinger	Peets Coffee (peet)	9/20/2000 *

41	TransFair/AP	Sam's Club Launches Brazilian Fair Trade Certified Gourmet Coffee Nationwide	Sam's Club (Walmart)	9/6/2005 *
42	TransFair/AP	Starbucks, TransFair USA and Fairtrade Labeling Organizations International Announce Groundbreaking Initiative to Support Small-Scale Coffee Farmers	Starbucks	10/28/2008
43	TransFair/AP	Starbucks Coffee Company Brings Fair Trade Certified Coffee to Retail Stores	Starbucks	9/25/2000 *
44	Business Wire	Fair Trade Certified Coffee Takes Center Stage as Starbucks "Coffee of the Week" May 3-9	Starbucks	4/29/2004
45	Business Wire	Introducing Starbucks Café Estima Blend Fair Trade Certified Coffee	Starbucks	10/10/2005
46	Starbucks	Starbucks Leads Global Coffee Industry in Paying Premium Prices for Sustainably-Sourced Coffee	Starbucks	1/18/2007
47	Business Wire	SaraLee to Acquire Coffee Business in Brazil	Sara Lee	9/17/2008

Source #	Company	Excess Return Event Date	CV	Result
1	Walmart	0.00981	0.01680	Do Not Reject
1	McDonalds	-0.00203	0.01848	Do Not Reject
1	Starbucks	0.01286	0.02325	Do Not Reject
2	McDonalds	0.03211	0.02407	Reject
3	McDonalds	0.00698	0.01808	Do Not Reject
3	Starbucks	0.00205	0.02237	Do Not Reject
4	McDonalds	-0.00950	0.02968	Do Not Reject
5	Starbucks	-0.03741	0.02674	Reject
6	SaraLee	-0.02396	0.03234	Do Not Reject
6	P&G	-0.02118	0.03059	Do Not Reject
6	Kraft	0.00223	0.03502	Do Not Reject
6	Nestle	-0.00049	0.02075	Do Not Reject
6	Starbucks	-0.05083	0.03637	Reject
7	P&G	0.00321	0.01453	Do Not Reject
7	SaraLee	-0.00739	0.02158	Do Not Reject
8	Starbucks	0.02814	0.08931	Do Not Reject
9	Starbucks	0.08826	0.04576	Reject
10	P&G	0.00023	0.01343	Do Not Reject
11	Safeway	0.00897	0.04453	Do Not Reject
12	Starbucks	0.02812	0.05212	Do Not Reject
13	Starbucks	-0.00304	0.04480	Do Not Reject
14	Kraft	-0.00649	0.03222	Do Not Reject
14	SaraLee	0.00152	0.02874	Do Not Reject
14	P&G	0.00124	0.01326	Do Not Reject
14	Starbucks	-0.01067	0.02987	Do Not Reject
15	Starbucks	0.04454	0.02179	Reject
15	Kraft	0.01798	0.02113	Do Not Reject
15	P&G	0.00613	0.01352	Do Not Reject
16	Whole Foods	0.00128	0.02483	Do Not Reject
16	Starbucks	0.01529	0.02260	Do Not Reject
16	P&G	0.00576	0.01305	Do Not Reject
17	Starbucks	0.01244	0.02865	Do Not Reject
18	Nestle	0.00823	0.01765	Do Not Reject
18	SaraLee	-0.01490	0.01892	Do Not Reject
18	P&G	-0.00191	0.01935	Do Not Reject
18	Walmart	-0.00433	0.01581	Do Not Reject
19	Starbucks	-0.01013	0.02395	Do Not Reject
20	Starbucks	0.00317	0.02683	Do Not Reject
21	Starbucks	0.00217	0.02583	Do Not Reject
22	Starbucks	0.02328	0.03587	Do Not Reject
22	Walmart	-0.00093	0.02131	Do Not Reject
23	Nestle	0.00451	0.01772	Do Not Reject
23	P&G	-0.00643	0.01534	Do Not Reject
24	Nestle	-0.01752	0.01772	Do Not Reject

24	Kraft	0.00058	0.01749	Do Not Reject
25	Safeway	0.00428	0.03964	Do Not Reject
26	GMCR	0.00923	0.06499	Do Not Reject
27	Albertsons	-0.00913	0.04613	Do Not Reject
28	Starbucks	-0.01741	0.04613	Do Not Reject
30	P&G	0.00866	0.01561	Do Not Reject
31	GMCR	0.03836	0.03510	Reject
32	McDonalds	-0.01134	0.02893	Do Not Reject
32	GMCR	0.05274	0.04302	Reject
33	P&G	0.00393	0.01417	Do Not Reject
35	GMCR	0.01952	0.04248	Do Not Reject
36	McDonalds	-0.01531	0.01936	Do Not Reject
36	GMCR	0.00926	0.04237	Do Not Reject
38	Walmart	0.00763	0.01665	Do Not Reject
39	Walmart	-0.00151	0.02410	Do Not Reject
41	Walmart	0.01790	0.01544	Reject
42	Starbucks	0.02713	0.03926	Do Not Reject
43	Starbucks	0.00728	0.09071	Do Not Reject
44	Starbucks	0.01136	0.02260	Do Not Reject
45	Starbucks	0.01269	0.03267	Do Not Reject
46	Starbucks	-0.00831	0.02701	Do Not Reject
47	SaraLee	0.70012	0.06521	Reject

Initial Announcements Only	
Average	0.007958468
Standard Deviation	0.017228023
T-statistic	0.461949005
All Announcements	
Overall Average	0.0153
Standard Deviation	0.087896947
T-statistic	0.173928687

As can be seen from the above summary results, there were 57 "Do Not Rejects" and 9 "Rejects". What this means is that, from the relative sample, one could not reject the null hypothesis 86% of the time. Or, 14% of the time, the alternative hypothesis would be accepted. This meant that the event had an effect on the stock price only 14% of the time.

This raises the question of why the companies would go through the trouble of having press releases for their fair trade products, if only 14% of the time it had an effect. At the same time, however, this also means that the market is not responding negatively to these announcements, which could have been a signal to stock holders of increased costs and smaller profit margins. Along with this, however, is the indication that the companies are not significantly gaining value from the announcement of the Fair Trade coffee events. One would assume that they are creating press releases to try and announce their "goodwill" in hopes of driving up their stock price. However, as was seen, the majority of the time, the stock price is not directly affected by the Fair Trade Announcements. Rather, the announcements may serve as a basis for marketing and advertising, more so than a similar dividends or earnings announcement.

Event Date +/- 2 Days

In addition to defining the event date as being at time 0, the event date was also defined as being time 0 (+/-) 2, and 0 (+/-) 3 days. The results are shown below.

Results: Event Date + and - 2 Days

Source #	Company	Average Excess Return Event Date +/- (2)
1	Walmart	0.0057
1	McDonalds	0.0034
1	Starbucks	-0.0026
2	McDonalds	0.0002
3	McDonalds	-0.0052
3	Starbucks	0.0024
4	McDonalds	-0.0011
5	Starbucks	-0.0113
6	SaraLee	-0.0004
6	P&G	-0.0063
6	Kraft	0.0065
6	Nestle	-0.0011
6	Starbucks	-0.0131
7	P&G	0.0016
7	SaraLee	0.0009
8	Starbucks	0.0049
9	Starbucks	0.0308
10	P&G	0.0019
11	Safeway	0.0036
12	Starbucks	0.0038
13	Starbucks	-0.0072
14	Kraft	-0.0023
14	SaraLee	-0.0001
14	P&G	0.0005
14	Starbucks	-0.0033
15	Starbucks	0.0045
15	Kraft	0.0017
15	P&G	-0.0010
16	Whole Foods	-0.0032
16	Starbucks	0.0017
16	P&G	0.0024
17	Starbucks	0.0047
18	Nestle	0.0030
18	SaraLee	-0.0040
18	P&G	-0.0023
18	Walmart	0.0011
19	Starbucks	-0.0008
20	Starbucks	-0.0098
21	Starbucks	0.0027
22	Starbucks	0.0003
22	Walmart	0.0012
23	Nestle	-0.0026
23	P&G	-0.0031
24	Nestle	-0.0063

24	Kraft	-0.0020
25	Safeway	0.0059
26	GMCR	0.0260
27	Albertsons	-0.0014
28	Starbucks	0.0022
30	P&G	0.0024
31	GMCR	0.0315
32	McDonalds	-0.0110
32	GMCR	0.0189
33	P&G	0.0034
35	GMCR	0.0047
36	McDonalds	-0.0057
36	GMCR	-0.0057
38	Walmart	0.0074
39	Walmart	0.0036
41	Walmart	0.0036
42	Starbucks	0.0343
43	Starbucks	0.0056
44	Starbucks	0.0028
45	Starbucks	0.0073
46	Starbucks	-0.0006
47	SaraLee	-0.0108

Initial Announcements Only	
Average of Excess Returns	0.004640498
Standard Deviation	0.009409605
T-statistic	0.493166035
All Announcements	
Overall Average of Excess Returns	0.0019
Standard Deviation	0.009052791
T-statistic	0.208630741

Results: Event Date + and - 3 Days

Source #	Company	Average Excess Returns Event Date +/- 3 Days
1	Walmart	0.0047
1	McDonalds	0.0009
1	Starbucks	-0.0050
2	McDonalds	-0.0022
3	McDonalds	-0.0027
3	Starbucks	0.0018
4	McDonalds	-0.0002
5	Starbucks	-0.0053
6	SaraLee	-0.0024
6	P&G	-0.0039
6	Kraft	0.0046
6	Nestle	0.0012
6	Starbucks	-0.0079
7	P&G	0.0003
7	SaraLee	0.0006
8	Starbucks	-0.0218
9	Starbucks	0.0189
10	P&G	0.0019
11	Safeway	0.0009
12	Starbucks	0.0045
13	Starbucks	-0.0105
14	Kraft	-0.0023
14	SaraLee	-0.0029
14	P&G	-0.0004
14	Starbucks	-0.0001
15	Starbucks	0.0023
15	Kraft	0.0013
15	P&G	0.0000
16	Whole Foods	-0.0026
16	Starbucks	0.0004
16	P&G	0.0015
17	Starbucks	0.0010
18	Nestle	-0.0021
18	SaraLee	-0.0022
18	P&G	-0.0026
18	Walmart	0.0006
19	Starbucks	-0.0009
20	Starbucks	-0.0068
21	Starbucks	0.0012
22	Starbucks	0.0001
22	Walmart	0.0044
23	Nestle	-0.0016
23	P&G	-0.0033
24	Nestle	-0.0021

24	Kraft	-0.0001
25	Safeway	0.0051
26	GMCR	0.0206
27	Albertsons	0.0011
28	Starbucks	0.0039
30	P&G	0.0005
31	GMCR	0.0246
32	McDonalds	-0.0066
32	GMCR	0.0094
33	P&G	0.0031
35	GMCR	0.0029
36	McDonalds	-0.0042
36	GMCR	-0.0042
38	Walmart	0.0046
39	Walmart	0.0005
41	Walmart	0.0003
42	Starbucks	0.0304
43	Starbucks	0.0053
44	Starbucks	0.0030
45	Starbucks	0.0118
46	Starbucks	-0.0033
47	SaraLee	-0.0057

Initial Announcements Only	
Average	0.00126655
Standard Deviation	0.00956932
T-statistic	0.13235488
Overall Average	0.0010
Standard Deviation	0.00750693
T-statistic	0.12976889

Souce #	Company	Event Date Only	Event Date +/- 2	Event Date +/- 3	Difference +/- 2	Difference +/- 3
1	Walmart	0.0098	0.0057	0.0047	0.0041	0.0051
1	McDonalds	-0.0020	0.0034	0.0009	-0.0054	-0.0029
1	Starbucks	0.0129	-0.0026	-0.0050	0.0155	0.0179
2	McDonalds	0.0321	0.0002	-0.0022	0.0319	0.0343
3	McDonalds	0.0070	-0.0052	-0.0027	0.0122	0.0097
3	Starbucks	0.0020	0.0024	0.0018	-0.0003	0.0003
4	McDonalds	-0.0095	-0.0011	-0.0002	-0.0084	-0.0093
5	Starbucks	-0.0374	-0.0113	-0.0053	-0.0261	-0.0321
6	SaraLee	-0.0240	-0.0004	-0.0024	-0.0236	-0.0215
6	P&G	-0.0212	-0.0063	-0.0039	-0.0149	-0.0173
6	Kraft	0.0022	0.0065	0.0046	-0.0043	-0.0024
6	Nestle	-0.0005	-0.0011	0.0012	0.0007	-0.0017
6	Starbucks	-0.0508	-0.0131	-0.0079	-0.0377	-0.0429
7	P&G	0.0032	0.0016	0.0003	0.0016	0.0029
7	SaraLee	-0.0074	0.0009	0.0006	-0.0083	-0.0080
8	Starbucks	0.0281	0.0049	-0.0218	0.0233	0.0499
9	Starbucks	0.0883	0.0308	0.0189	0.0574	0.0694
10	P&G	0.0002	0.0019	0.0019	-0.0017	-0.0017
11	Safeway	0.0090	0.0036	0.0009	0.0054	0.0081
12	Starbucks	0.0281	0.0038	0.0045	0.0243	0.0236
13	Starbucks	-0.0030	-0.0072	-0.0105	0.0041	0.0075
14	Kraft	-0.0065	-0.0023	-0.0023	-0.0042	-0.0042
14	SaraLee	0.0015	-0.0001	-0.0029	0.0017	0.0044
14	P&G	0.0012	0.0005	-0.0004	0.0008	0.0017
14	Starbucks	-0.0107	-0.0033	-0.0001	-0.0074	-0.0106
15	Starbucks	0.0445	0.0045	0.0023	0.0400	0.0422
15	Kraft	0.0180	0.0017	0.0013	0.0163	0.0167
15	P&G	0.0061	-0.0010	0.0000	0.0071	0.0061
16	Whole Foods	0.0013	-0.0032	-0.0026	0.0045	0.0039
16	Starbucks	0.0153	0.0017	0.0004	0.0136	0.0148
16	P&G	0.0058	0.0024	0.0015	0.0034	0.0043
17	Starbucks	0.0124	0.0047	0.0010	0.0078	0.0114

18	Nestle	0.0082	0.0030	-0.0021	0.0052	0.0104
18	SaraLee	-0.0149	-0.0040	-0.0022	-0.0109	-0.0127
18	P&G	-0.0019	-0.0023	-0.0026	0.0004	0.0007
18	Walmart	-0.0043	0.0011	0.0006	-0.0054	-0.0049
19	Starbucks	-0.0101	-0.0008	-0.0009	-0.0093	-0.0092
20	Starbucks	0.0032	-0.0098	-0.0068	0.0130	0.0100
21	Starbucks	0.0022	0.0027	0.0012	-0.0006	0.0010
22	Starbucks	0.0233	0.0003	0.0001	0.0230	0.0232
22	Walmart	-0.0009	0.0012	0.0044	-0.0021	-0.0054
23	Nestle	0.0045	-0.0026	-0.0016	0.0071	0.0061
23	P&G	-0.0064	-0.0031	-0.0033	-0.0033	-0.0031
24	Nestle	-0.0175	-0.0063	-0.0021	-0.0113	-0.0154
24	Kraft	0.0006	-0.0020	-0.0001	0.0025	0.0006
25	Safeway	0.0043	0.0059	0.0051	-0.0016	-0.0008
26	GMCR	0.0092	0.0260	0.0206	-0.0168	-0.0114
27	Albertsons	-0.0091	-0.0014	0.0011	-0.0077	-0.0102
28	Starbucks	-0.0174	0.0022	0.0039	-0.0196	-0.0213
30	P&G	0.0087	0.0024	0.0005	0.0063	0.0082
31	GMCR	0.0384	0.0315	0.0246	0.0069	0.0138
32	McDonalds	-0.0113	-0.0110	-0.0066	-0.0003	-0.0048
32	GMCR	0.0527	0.0189	0.0094	0.0338	0.0433
33	P&G	0.0039	0.0034	0.0031	0.0005	0.0008
35	GMCR	0.0195	0.0047	0.0029	0.0148	0.0166
36	McDonalds	-0.0153	-0.0057	-0.0042	-0.0096	-0.0111
36	GMCR	0.0093	-0.0057	-0.0042	0.0150	0.0135
38	Walmart	0.0076	0.0074	0.0046	0.0002	0.0030
39	Walmart	-0.0015	0.0036	0.0005	-0.0051	-0.0020
41	Walmart	0.0179	0.0036	0.0003	0.0143	0.0176
42	Starbucks	0.0271	0.0343	0.0304	-0.0071	-0.0033
43	Starbucks	0.0073	0.0056	0.0053	0.0017	0.0020
44	Starbucks	0.0114	0.0028	0.0030	0.0085	0.0084
45	Starbucks	0.0127	0.0073	0.0118	0.0053	0.0009
46	Starbucks	-0.0083	-0.0006	-0.0033	-0.0077	-0.0050
47	SaraLee	0.7001	-0.0108	-0.0057	0.7109	0.7058
					Average	Average
					0.0134	0.0143

The above table shows the difference between the abnormal returns when the event date was defined as being only the date of the announcement and when the event date was (+/-) 2 and 3 days from the announcement. As you can see, the average of the differences was taken for both the 2 and 3 day regressions. The results were 0.0134 and 0.0143 respectively. This means that when the event date was defined as being on the announcement date only, there was a larger abnormal return, on average. Because the abnormal returns decreased, a statistical analysis was not done for the 2 and 3 day events.

Conclusion

The purpose of this thesis was to answer whether or not Fair Trade announcements affect stock price. After giving a brief history and introduction to the arguments surrounding Fair Trade, an event study was described and analyzed. The results of the event study suggest that while it is possible that certain Fair Trade announcements will affect the stock price of the firm, as a whole it does not affect the stock price. Only 14% of the announcements that were analyzed could clearly claim that they had an effect on stock price. The remaining announcements, 86%, could not claim that they had an effect on stock price. As was stated earlier, while it cannot be concluded that it can greatly alter the stock price when a Fair Trade announcement is made, it may have more of a long term effect. The announcement may instead provide to be more or less a marketing tool to entice coffee buyers to drink their coffee, providing long term effects down the road. These effects may manifest in the form of increased sales, goodwill, or higher than expected earnings. However, the initial public perception does not react in a similar nature as positive event announcements, such as positive quarterly earnings.

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