

SPECIALTY COFFEE TRANSACTION GUIDE

The Effects of FTO Certification on FOB Prices for Specialty Coffees

Specialty Coffee Transaction Guide Data Brief
August 2020

Specialty Coffee Transaction Guide Data Briefs

Our expanding database of specialty coffee contracts provides the foundation for a series of practical Data Briefs that explore how specialty coffee markets work. These regular data summaries illuminate factors that systematically influence prices for green specialty coffees. Examples of the questions that can be addressed with the current Transaction Guide data include:

- How do certifications influence green coffee prices?*
- How do green coffee prices vary across consuming regions?*
- Does green coffee pricing differ systematically with the length of buying relationships?*
- How does fixed versus differential contracting influence green coffee prices?*
- Are specialty coffee farmers being compensated for investments in different processing methods?*

Two things should be kept in mind as you read this Data Brief:

- 1. The current roster of 57 Data Donors is not necessarily representative of the full range of green specialty coffee buyers.*
- 2. The observations are based on FOB prices. As you reflect on their implications, consider the many steps that must be taken (and paid for) on the path from FOB to farm gate prices.*

We thank the expanding roster of specialty coffee companies that donate the contract data that underpin the Specialty Coffee Transaction Guide and Data Briefs. We also thank the organizations that provide the financial and strategic support that make this work possible.

The Specialty Coffee Transaction Guide research team is responsible for any errors in this Data Brief.

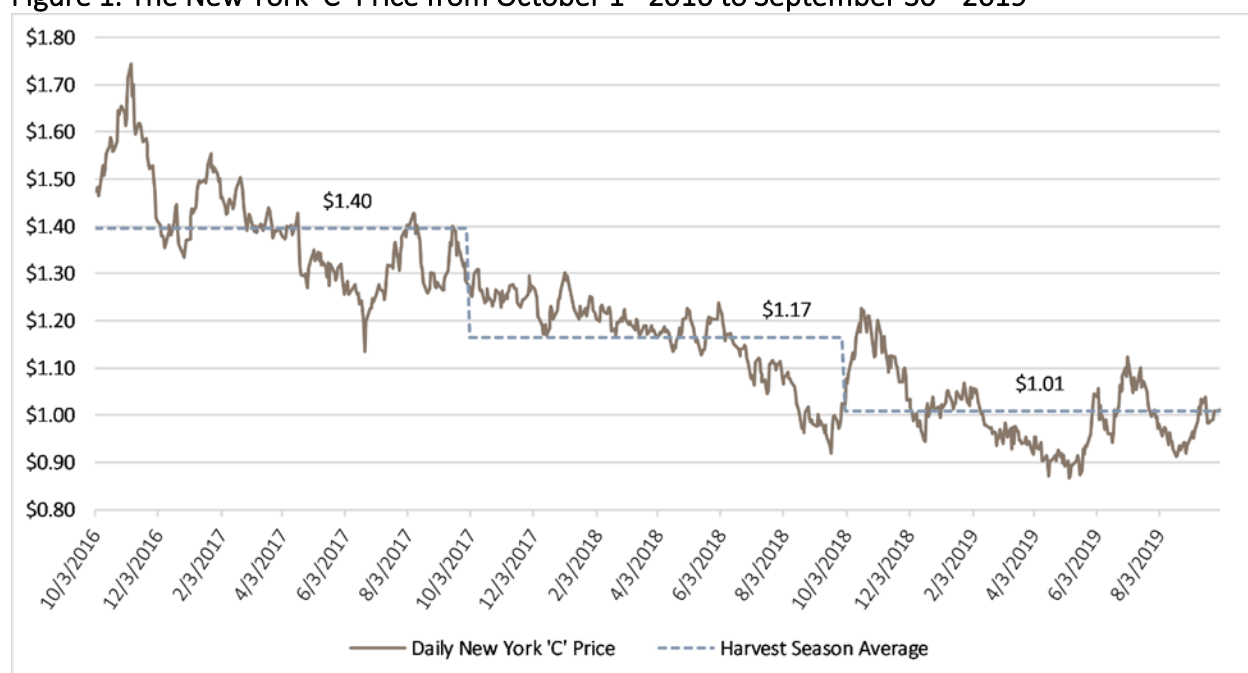
To learn more about the Specialty Coffee Transaction Guide program, sample and data, visit www.transactionguide.coffee.

The Effects of FTO Certification on FOB Prices for Specialty Coffees

For the last 20 years, coffee industry observers have had much to say about the effects of certification programs on market outcomes like green coffee prices and producer incomes.¹ Contract data from the 2019 Specialty Coffee Transaction Guide provide another opportunity to see how Fair Trade and Organic (FTO) certification influences the distribution of FOB prices for specialty coffees.

The importance of this issue skyrocketed in the wake of yet another coffee price crisis, where commodity prices declined over three years, and spent much of the 2018/19 harvest season below \$1.00 per pound (see Figure 1).

Figure 1. The New York 'C' Price from October 1st 2016 to September 30th 2019



* Copied from the 2019 Specialty Coffee Transaction Guide

This Data Brief examines the effects of FTO certification on FOB prices across these three harvest seasons. After describing average, weighted-average, and median prices for FTO certified coffees, we isolate two different effects of certification on prices. One is an insurance effect that buffers specialty coffee producers against the prospect of critically low prices. The second effect inhibits access to the high prices that are available in parts of the specialty coffee market.

¹ Dragusanu, Raluca, Daniele Giovannucci, and Nathan Nunn. 2014. The Economics of Fair Trade. *Journal of Economic Perspectives*, 28(3); Valkila, Joni. 2009. Fair Trade Organic Coffee Production in Nicaragua—Sustainable Development or a Poverty Trap? *Ecological Economics*, 68(12); Bacon, Christopher. 2005. Confronting the Coffee Crisis: Can Fair Trade, Organic, and Specialty Coffees Reduce Small-Scale Farmer Vulnerability in Northern Nicaragua? *World development*, 33(3); Reynolds, Laura T. 2002. Consumer/Producer Links in Fair Trade Coffee Networks. *Sociologia Ruralis*, 42(4).

The Current Sample of Contracts

The [Specialty Coffee Transaction Guide](#) relies on a group of specialty coffee support organizations, exporters, importers, and roasters, who provide (on a confidential basis) detailed contract data covering specialty coffee transactions from recent harvests. Researchers at Emory University aggregate this anonymized information to create tables that describe the distributions of recent FOB prices for specialty coffees. Data for the 2019 Transaction Guide – which came from 57 companies – summarize roughly 38,000 contracts that cover more than 625 million pounds of green specialty coffee valued at \$1.4 billion.

Free on board (FOB) prices are ‘paid for coffees that are delivered and placed onto the ship at the port in the country of embarkation. They typically cover any overland transportation costs from mills or warehouses to the port of origin, but not any overseas shipping, insurance, or any transportation, customs, and overland freight costs incurred on arrival to the port of destination’ (International Chamber of Commerce). These prices, which are consistently reported in most export contracts, speak to pre-export valuations and indicate the amounts of money that stay in the countries where coffees are produced. However, FOB prices only tell part of the economic story because they do not indicate how much of the contracted revenues make it back to coffee farms. Moreover, a number of transactions between farm gates and ports do not stipulate prices in USD per green pound. These shortcomings must be kept in mind when interpreting the numbers presented in the following tables (see the 2019 Specialty Coffee Transaction Guide, page 3).”

According to the Specialty Coffee Association, a coffee becomes ‘specialty’ when it scores at or above 80 points.² By this definition, all contracts in the 2019 Transaction Guide apply to specialty coffees. For this analysis, we set aside roughly 8,400 contracts that are not accompanied by a quality score. This leaves 30,067 coffee contracts across three harvest years, from October 2016 to September 2019.

Most of these contracts report no major certifications (N=22,569). The two most common certifications in the sample are Organic and Fair Trade (see Figure 2). “Organic coffee is produced with methods that aim at promoting a viable and sustainable agro-ecosystem. Fair trade coffee is based on a trading relationship between stakeholders that has both market-based and ethical elements and aims to be sustainable in the long term.”³ The largest group of certified contracts (N=3,875) report both of these certifications. This is consistent with the observation that “organic certification is now a virtual requirement for selling fair-trade coffee.”⁴ Fewer

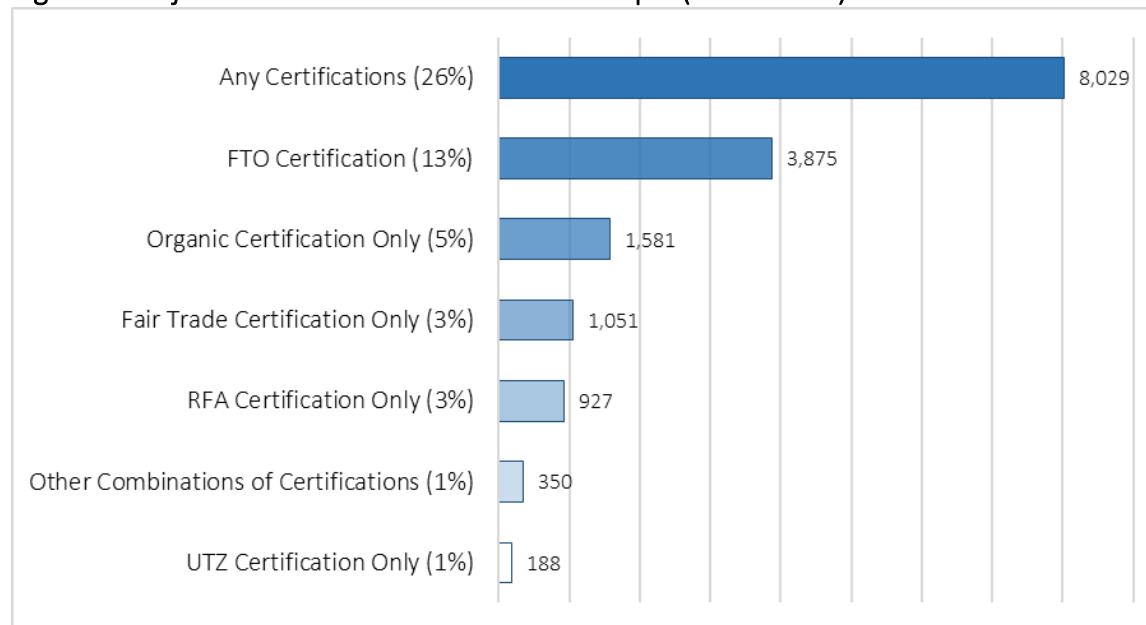
² Valencia, Ana. Coffee Professionals Discuss: What Is Specialty Coffee? *Perfect Daily Grind*, July 10, 2017.

³ Daviron, Benoit and Stefano Ponte. 2005. *The Coffee Paradox: Global Markets, Commodity Trade and the Elusive Promise of Development*. Zed Books, page 165).

⁴ Jaffee, Daniel. 2014. *Brewing Justice: Fair Trade Coffee, Sustainability, and Survival*. University of California Press, page 251.

contracts have one or the other certification and fewer still have Rainforest Alliance or UTZ certifications. We set aside these smaller groups of certified coffees to focus on the pricing implications of FTO certification.

Figure 2. Major Certifications in the Current Sample (# Contracts)



Looking at total sales volumes, approximately 105 million pounds of the coffee in the final sample are FTO certified. This represents roughly 25% of the total. In terms of total contract value, roughly \$250 million is FTO certified, which represents roughly 27% of the total.

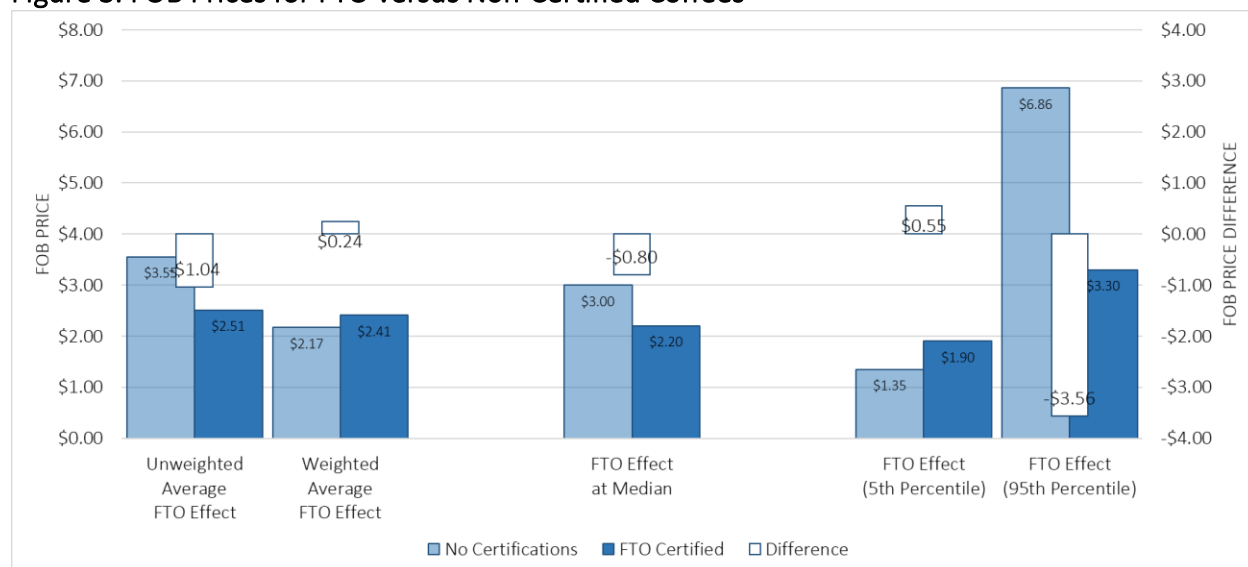
What are the implications of FTO certification for contracted FOB prices?

Under Fair Trade and Organic certification programs, there is a mandated minimum price of \$1.40 per pound for fair trade certification. In addition, there is a social premium of 20 cents per pound, and another 30 cents per pound premium for organic certification. This means that when the commodity price is at or below \$1.40 per pound, the minimum price for certified FTO coffee is \$1.90 per pound.

The Transaction Guide data allows us to see the actual contracted FOB prices that emerge around these mandated minimums.

One way to show an FTO effect on FOB prices is to look at group averages. The average price for the FTO coffees in this sample is \$2.51 per pound, which is \$1.04 lower than the corresponding average price for the non-certified coffees (see Figure 3). However, FTO coffees typically sell in larger lot sizes. In the current sample, FTO contracts average roughly 27,000 pounds, which is double the average lot size for non-certified coffees. Adjusting for these quantity differences, the weighted-average price for FTO coffees, at \$2.41 per pound, is 24 cents higher.

Figure 3. FOB Prices for FTO versus Non-Certified Coffees



During a 3-year period where the commodity price was consistently below \$1.40 per pound, the median price for FTO coffees, at \$2.20 per pound, was 30 cents higher than the mandated minimum price of \$1.90. This means that fifty percent of the FTO contracts in this sample paid more than 30 cents above the mandated minimum price! This observation supports the idea that “producers and traders remain free to negotiate higher prices on the basis of quality and other attributes.”⁵ However, it is also important that the median price for non-certified coffees – at \$3.00 per pound – is 80 cents per pound higher than the FTO median.

Figure 3 goes on to reveal contrasting FTO effects at the lower and upper ends of the two price distributions. The 5th percentile price for FTO coffees is \$1.90 per pound, which is 55 cents higher than the lower-end price for non-certified coffees. This provides evidence of the designed insurance effect as FTO contracts adhere to the mandated minimum price, while non-certified coffees are dragged down by historically low commodity prices.

At the other extreme, the 95th percentile price for non-certified coffees is much higher; \$6.86 per pound compared to \$3.30 for FTO coffees. As coffees move away from the lower end of the specialty market, the prices that they receive tend to be much higher outside of FTO certification programs.

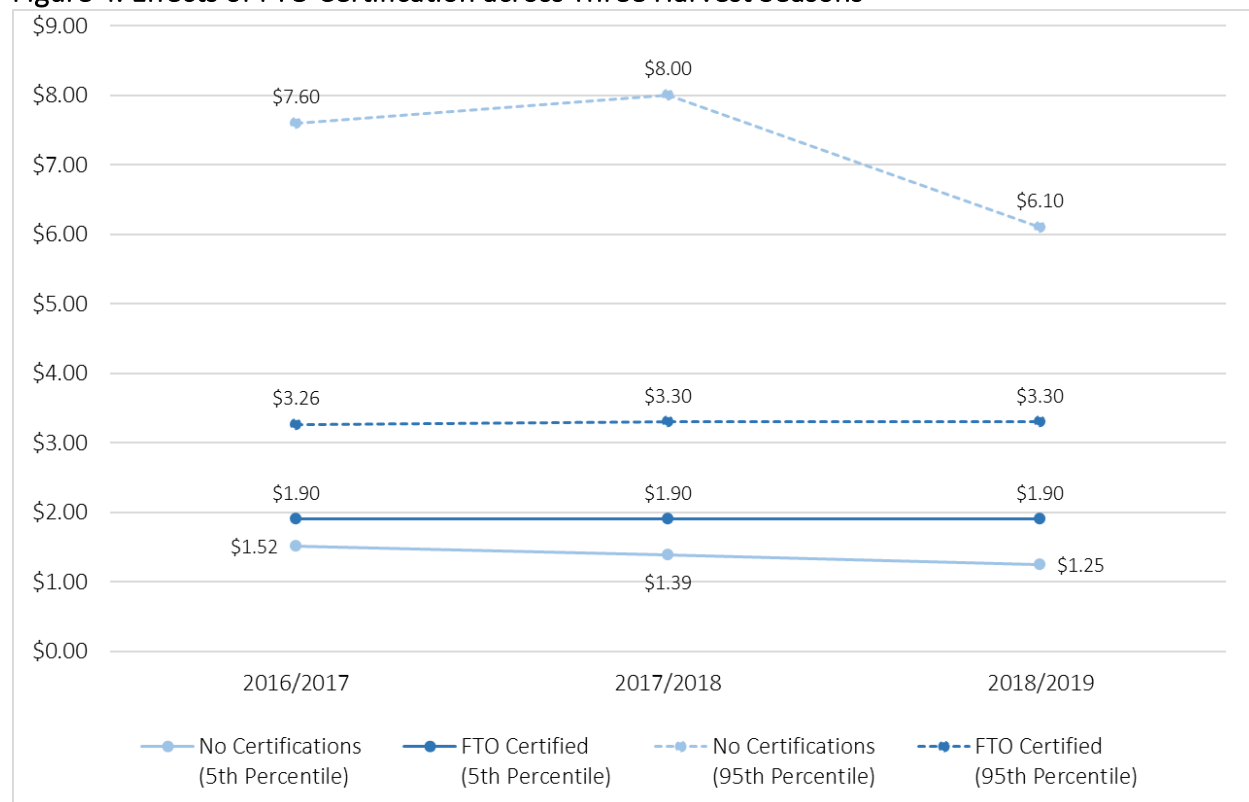
How do FTO and non-certified price distributions react as commodity prices fall?

FTO certification provides clear price protection at the lower end of the specialty market. This insurance becomes more important as commodity prices decline. Recall from Figure 1 that the annual average of the New York ‘C’ price declined from \$1.40 in 2016/17 to \$1.01 in 2018/19; a

⁵ Dragusanu, Giovannucci, and Nunn (2014: 219).

drop of 39 cents per pound. Over the same three years, the 5th percentile price for FTO coffees held steady at \$1.90 (see the darker solid line in Figure 4), while the price floor for non-certified coffees fell by 27 cents per pound (see the lighter solid line). The insurance effect of FTO increases in value to farmers and cooperatives as commodity prices decline.

Figure 4. Effects of FTO Certification across Three Harvest Seasons

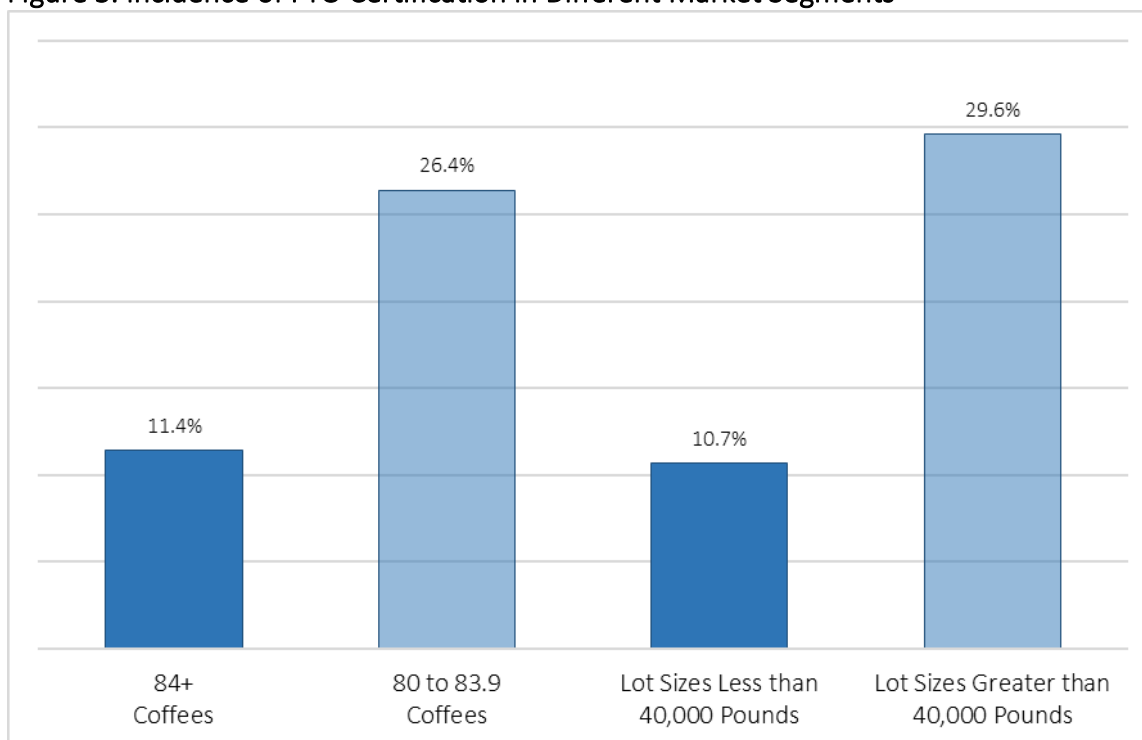


The data also suggest consistent higher-end price for coffees with FTO certifications: \$3.26 per pound in 2016/17 and \$3.30 in 2017/18 and 2018/19. Outside of FTO programs, the 95th percentile prices are much higher.

Does FTO certification provide different price benefits for lower-scoring coffees and for coffees sold in larger lot sizes?

When thinking about contrasting effects at the lower and upper ends of the specialty market, it is important to note that FTO certification is more common among the lower-quality specialty coffees; i.e., those scoring above 80 points but below 84 points. Figure 5 shows that FTO certification is roughly three times more common among coffees with these lower scores; 26.4% compared to 11.4%. FTO certification is also roughly three times more common for specialty coffees that sell in larger lot sizes; 29.6% among contracts for more than 40,000 pounds, compared to 10.7% of smaller lot sizes.

Figure 5. Incidence of FTO Certification in Different Market Segments



For coffees scoring less than 84 points, FTO certification raises the 5th percentile price by 80 cents per pound (see Figure 6a). However, the FTO effect at the 95th percentile price turns negative (-35 cents per pound). For coffees that score at or above 84 points, however, FTO certification has a small positive effect of 8 cents per pound at the lower end. This effect turns negative through the middle of the distribution, and the negative price effect becomes large at the market's upper end (-\$4.53 per pound).

Figure 6b shows a similar pattern for lot sizes. For coffees sold in larger quantities, the positive effect of FTO certification at the lower end of the market is 79 cents per pound. However, the FTO effect at the upper end approaches zero. The insurance effect of FTO certification dominates among coffees that sell in full containers. For coffees sold in smaller lot sizes, FTO certification has a small positive effect at the market's lower end (25 cents per pound). This effect becomes negative through the middle of the distribution, and the negative effect becomes large at the upper end of the market (-\$4.50 per pound).

Figure 6a. FTO Effects for Lower versus Higher Quality Coffees

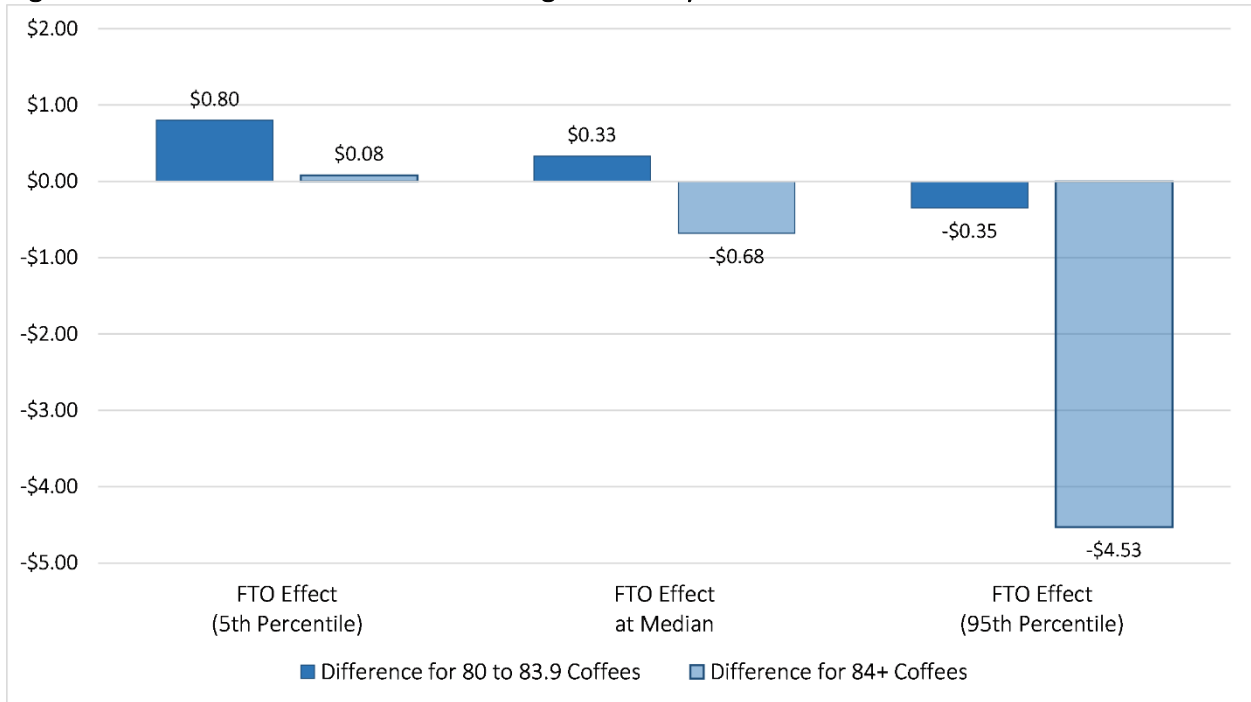
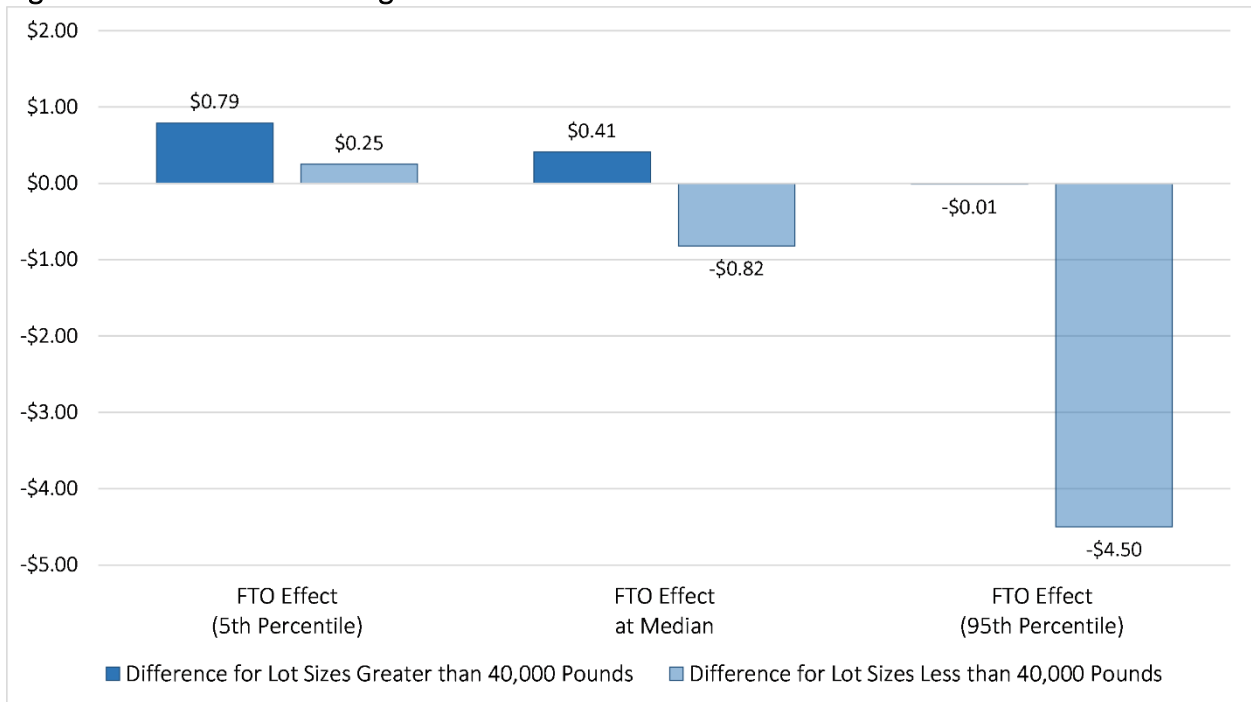


Figure 6b. FTO Effects for Larger versus Smaller Lot Size Coffees

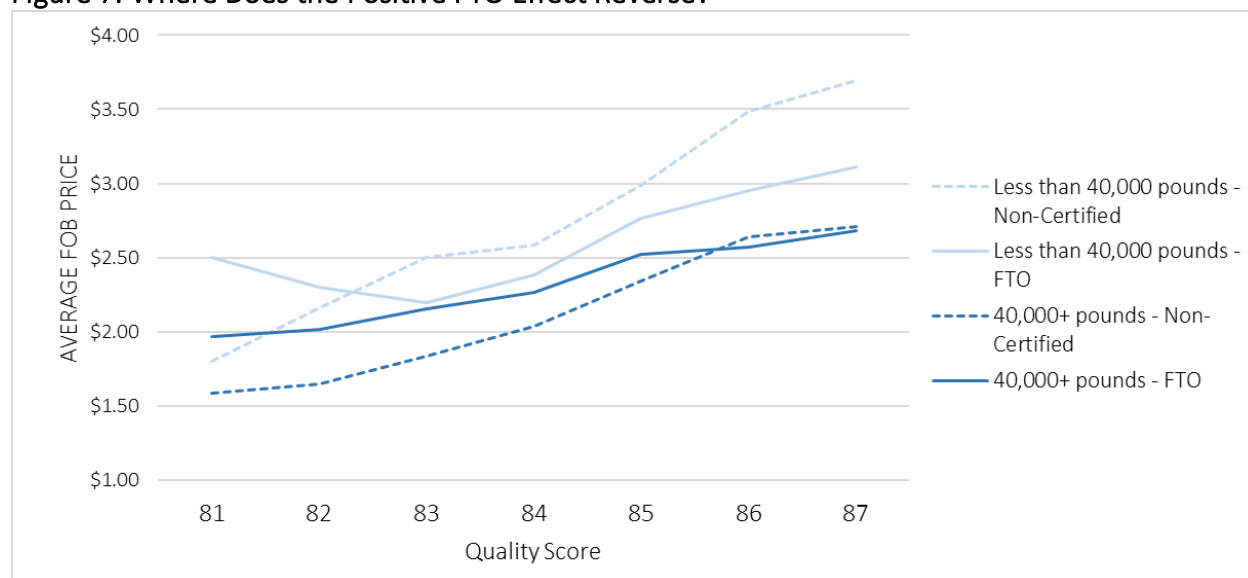


Can we identify quality score ranges with positive FTO effects on prices?

Our final figure examines the relationship between FOB prices and quality scores for four groups of coffees. Figure 7 plots average FOB prices against quality scores truncated to whole points between 81 and 87 points. It shows positive relationships between price and coffee quality in all four groups, with the two groups of non-certified coffees showing steeper slopes. The positive price-quality slopes for the two groups of FTO contracts indicates that certification systems can be consistent with, and not antagonistic to, quality-based pricing.

The dark blue lines in Figure 7 represent coffees sold in larger lot sizes. The gap between the two lines indicates a substantial FTO insurance effect at the lower quality scores. This effect erodes as quality scores increase, and reverses among coffees scoring 86 points or above. Clearly, most of the coffees sold in larger lot sizes benefit from the positive FTO insurance effect. The lighter blue lines represent coffees sold in smaller lot sizes. It shows a similar insurance effect for the lowest quality coffees. This time, however, the certification effect becomes negative for coffees scoring 83 points or above. Moreover, the pricing disadvantages for FTO certification continue to rise, due to a steeper price-quality slope for non-certified coffees.

Figure 7. Where Does the Positive FTO Effect Reverse?



* We drop the top 5% (i.e., FOB prices greater than \$6.25 per pound) and the bottom 5% (i.e., FOB prices less than \$1.39 per pound) of the observations so that outliers do not bias these observations. We also drop contracts for coffees that score 80 points, and those that score above 87 points, due to the small numbers of either FTO or non-certified coffees at those quality levels.

Regular meets fancy ... are there two specialty markets?

Overall, FTO certification seems to have different effects on prices depending on where a coffee lands in the quality/quantity landscape. In many cases, FTO certification offers critical pricing safeguards. Lower scoring coffees sold in larger lot sizes clearly benefit from the insurance effect

of FTO certification, especially at the lowest end of prevailing price distributions. In other cases, this insurance effect is less important. Higher scoring coffees sold in smaller lot sizes are less effected by mandated price minimums and tend to receive higher prices when they sell outside the FTO system.

These patterns have implications for how we support producers as they seek better prices for their different specialty coffees.⁶ First, we should think about bolstering the effects of, and perceptions about, FTO certification in its core market niche. Producers of lower quality specialty coffees sold in larger quantities are the main beneficiaries of FTO certification. However, the mandated price minimum does not mean that producers must price all certified coffees to the same price floor. Because (all else equal) the economic benefits of certification increase with the FOB prices that producers receive, we should publicize the fact that most FTO contracts in the Transaction Guide sample close with FOB prices that are much higher than the mandated minimum, even during a period where commodity prices were below \$1.40 per pound.

We should also think about what other market interventions are required to help the producers who grow higher-quality specialty coffees to price more effectively. For these fancier coffees, the insurance benefits of FTO certification are not as relevant. As evolving specialty market dynamics push these price distributions higher, it becomes more important to help producers and cooperatives benefit economically from their smaller lots of higher-quality coffees.

Thinking holistically, we might encourage small coffee producers and their cooperatives to develop hybrid selling strategies rather than vilifying them for engaging in quality-based segmentation.⁷ Table 1 outlines a thought experiment that draws from data describing two market niches. The 'Regular Specialty Market' (comprised of coffees scoring less than 84 points and sold in 40,000+ pound lot sizes) has fewer contracts but more total volume. The median lot size in this part of the market is roughly one container, and the median quality score is 82 points. Cooperatives might develop strategies that push blended-lot quality toward (and beyond) this 82-point median, and then ensure that these reliably good coffees are FTO certified. As this happens, fair trade supporters might cultivate a pricing environment that pushes the current \$1.63 per pound median price to the higher \$2.20 per pound FTO median reported earlier. This environment should also encourage appropriate price increments for the higher quality certified coffees (remember Figure 7).

Meanwhile, the 'Fancy Specialty Market' (comprised of coffees scoring at or above 84 points and sold in lot sizes less than 40,000 pounds) offers the prospect of considerably higher FOB prices.

⁶ Before spelling out what these pricing patterns mean, it is important to clarify one thing that they do not mean. They do not advocate for a wholesale shift to selling higher quality coffees in smaller lot sizes. Instead, the patterns indicate where FOB prices are higher versus lower given the quality and lot size of the various coffees.

⁷ Haight, Colleen. 2011. The Problem with Fair Trade Coffee. *Stanford Social Innovation Review*, 3.

With a more supportive market environment, producers (or groups of producers) might separate their best coffees and develop compelling single-origin stories. Assuming a producer can develop appropriate buying relationships, either among or outside the set of current FTO buyers, they should receive better prices for these excellent coffees and stories. Even when they do not dominate production volumes, these smaller sales can make non-trivial contributions to a farmer's (or producer group's) bottom line.

Table 1. A Final Thought Experiment

Market Niche	Contracts	Total Volume (pounds)	Median FOB Price	Median Quality Score	Median Lot Size
Regular Specialty Market*	3,276	158,036K	\$1.63	82.0	42.3K
Fancy Specialty Market**	18,248	107,330K	\$3.25	86.0	2.3K

* Quality score < 84 and lot size > 40,000 pounds

** Quality score >= 84 and lot size <= 40,000 pounds

This kind of thinking requires us to recognize that the specialty market's two niches – regular and fancy – are different places. If we start here, we can bolster support programs to ensure the insurance effects that provide an adequate footing for specialty coffee producers. Then, we can offer complementary programming to ensure that the specialty market's price ceilings are high enough to house genuine prosperity for specialty coffee producers.

Four Reflections

Alejandro Cadena, CEO, Caravela Coffee

I am very excited to see the data contributed by data donors to the Specialty Coffee Transaction Guide being analyzed to generate information that can be used by coffee farmers to make strategic long-term decisions. The analysis in this first data brief shows that Fairtrade-certified coffee growers should be more aggressively pursuing market segmentation strategies beyond the FT/FTO markets, moving into higher quality markets to maximize their incomes and profitability.

Kimberly Coburn, Green Coffee Buyer, Equal Exchange

This brief is welcomed and incredibly informative. It also behooves us to consider the wider benefits offered by fair trade programming, outside of just the minimum price component. Other benefits of Fair Trade include: Long-term relationships and facilitating financing which provides an important source of working capital for farmer organizations.

Peter Kettler, Global Product Manager – Coffee, Fairtrade International

This study provides further evidence of the role that Fairtrade plays in supporting coffee producers during times of depressed prices, providing a critical economic safety net in addition to agronomic assistance that can help to improve yields and quality. While high quality coffees will always command premium prices, it can be a difficult journey for producers who have endured years selling their coffees below the cost of production, leaving them unable to undertake the

farm renovations, inputs and infrastructure improvements necessary to penetrate the premium market. Hopefully, the industry will recognize that high quality cannot be sustained if coffee farming is not a viable business proposition to this, as well as the next generation of farmers.

Joao Mattos, Coffee Manager, CLAC

We really like this study. It is a good analysis, well done, and highly relevant. It is important to remember that cooperatives do not sell all their coffees as FTO. Many groups are already starting to work – not only in specialty coffee but other markets as well – to expand earning opportunities. The fair trade system started working more heavily to access specialty coffee markets only relatively recently. In fact, for the last two years, we have put efforts behind the promotion of fair trade coffees in specialty markets, like Japan. This year we also created the Fairtrade Golden Cup, a coffee competition based on quality for several Latin American countries. This competition was created specifically to promote specialty coffees from small farmer cooperative organizations. We are looking for ways that we can reward small farmer organizations as we understand how important accessing higher prices can be to these groups. In the future, we would like to see – if possible – studies like this that consider more certifications and verifications. These will be important for us so we can identify pricing patterns and distributions for specialty coffees, and then plan future actions in joint efforts with cooperatives to improve the incomes of small producers.