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The Coffee in Your Cup: Reviewing Fair Trade's Impact on Development

Elena Liu
University of Kentucky

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Abstract

Fair trade is one of many certification strategies available to coffee producers around the globe. The fair trade (FT) movement broke into the American coffee industry with strategies aimed at reducing global poverty among farmers in developing nations, primarily using the FMP and FP mechanisms. This review will discuss why research on the development effects of fair trade is increasingly nebulous, how researchers have analyzed it up until now, their findings, and future recommendations to improve the clarity of results. Current literature on fair trade's impact provides consistent reports of higher prices attained, but inconclusive findings surrounding increased income and poverty alleviation based on region, multi-certification, and year of study among other factors. Insufficient randomization, the lack of methodology provided, and differing measures/scales of development among the majority of existing studies reduce the preciseness of their conclusions. Large-scale RCTs or well-explicated PMS methods should be used in all future research. In addition, this paper summarizes the researchers theoretical conclusions based on recent studies and simple economic concepts, which proposes that FT cannot promote development based on its current imbalance between certified producers and FT market demand. Although further experimentation is required, this line of thought allows for a final prediction that the economic impact of the COVID-19 pandemic around the world will push FT certified coffee producers out of the industry.

1. Introduction

In the developed world, coffee is the fuel that keeps workers productive and cafe culture thriving. With its discovery said to have been prompted by the wanderings of a humble Etheopian goat herder, this popular drink is now one of our most common luxury items. The average American drinks two cups of coffee per day (Ledbetter, 2017), a figure that translates to a little over 15 pounds of coffee consumed per person each year. The fair trade (FT) movement, which rose to popularity throughout the late twentieth century, was able to break into this massive American industry as a response to increased public focus on global poverty among farmers in developing nations.

This trend continues into the current era, with Fair Trade USA alone certifying 176 million pounds of coffee in 2018 (Fair Trade USA, 2019). Fair trade has several key components with the end goal of empowering farmers through economic development, supporting sustainable crop methods, and providing globally-conscious products to consumers. Within the context of the coffee industry, they strive to achieve this in several ways along the chain of production. For farmers, the most important components of fair trade are the minimum price (FMP) and price premium (FP). Before exploring these two systems, it is important to note that the global coffee market is extremely susceptible to price volatility. The lack of regulation following the collapse of the International Coffee Agreement (ICA) in the 1980's makes coffee producers susceptible to erratic market behavior in a way not seen for producers of similar products like fruit and cocoa. The FMP is a minimum price that is applied or "binding" when the New York Market price (global indicator) dips below a specified level. The FP combats the effects of price volatility by providing an additional amount of money which is paid to certified farmer organizations in order

to incentivise participation (Fairtrade International, 2011). This continued participation is not only integral to keeping the benefits of fair trade, but also to increasing the long-term profitability of crops, since new coffee plants in plots re-entering the industry take several years to produce berries. The FP is intended for use on community projects that are decided upon by each individual cooperative, a stipulation that seeks to promote increased welfare in a variety of ways among FT communities. Coffee makes up 46% of total premiums paid to all fair trade farmers (Fairtrade International, 2011), illustrating its prevalence within FT agriculture.

1.1 Alternatives to Fair Trade

The conventional process that turns green coffee beans into the cup of coffee that consumers enjoy follows a notoriously complex supply chain. For many producers and cooperatives, selling beans requires attaining lucrative contracts with companies such as Starbucks or using intermediaries, often called *coyotes* in Latin America, in order to shuttle product to be processed in urban centers. Fair trade falls under a broader umbrella of coffee upgrades (also referred to as certification schemes, private sustainability standards, and differentiated coffee). These certifications--which also include Organic, 4C Association, Rainforest Alliance, and UTZ--allow farmers to get a higher price for their product and shorten the supply chain. Since these organizations share many common goals and production requirements, it is common for farmers to attain multiple certifications at once in order to diversify the options for selling product at a higher price.

Source: Kevin Herrell, et al. "Honduran Coffee Trade: Economic Effects of Fair Trade Certification On Individual Producers (Mobile, Alabama: Southern Agricultural Economics Association, 2017)." 16.

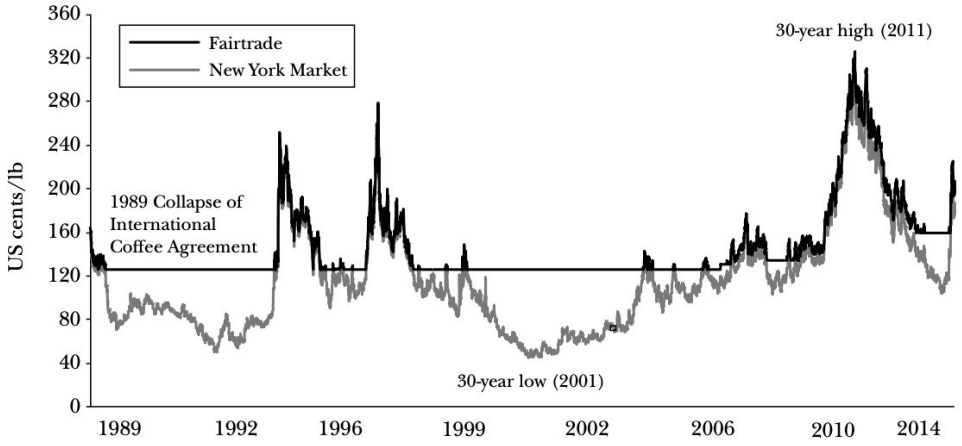
Figure 1

Figure 1 shows the modifications that the FT system makes to the coffee supply chain. Producers who do not become certified are vulnerable to the prices set by those at each stage of the supply process. This ultimately results in extremely low levels of income at times when the world coffee price is low, since each middle man is able to pass on the burden of lower prices in order to reduce damage to their own profit margin.

1.2 Fair Trade Adjusts

In line with their mission to improve the efficacy of FT coffee systems, the movement has undergone several changes in recent decades as the market has expanded. In 2011, Fair Trade USA split from Fairtrade International over disagreements about the certification of plantations. Although both certify producers through FLOCERT, Fairtrade International places

focus on small-scale producers and their cooperatives, while Fair Trade USA allows plantation-size producers to become certified (Zinn, 2011). In addition, Fairtrade-certified companies have been required to compensate workers according to the living wage rather than the national minimum wage if it is lower since 2014 (Krumbiegel et al., 2018). Figure 2 illustrates the impact of the FP and FMP, as well as their increases in 2007, 2008, and 2011.



Source: © Fairtrade Foundation, adapted and used with permission.
Notes: NB Fairtrade Price = Fairtrade Minimum Price* of 140 cents/lb + 20 cents/lb Fairtrade Premium.** When the New York prices is 140 cents or above, the Fairtrade Price = New York price + 20 cents. The New York Price is the daily settlement price of the 2nd position Coffee C Futures contract at ICE Futures US.
* Fairtrade Minimum Price was increased on June 1, 2008, and April 1, 2011.
** Fairtrade Premium was increased on June 1, 2007, and April 1, 2011.

Source: Raluca Dragusanu and Nathan Nunn. "The Effects of Fair Trade Certification: Evidence from Coffee Producers in Costa Rica (Cambridge, MA: NBER Working Paper 24260, 2018)," 9, fig. 1.

Figure 2

1.3 Areas of Interest

Since the FT system appeals to consumers through the empowerment of producers, its effectiveness is best examined through the perspective of farmers. A review of previous studies that analyze the efficacy of fair trade reveal diverse results pertaining to its economic impact on development. These differences can mainly be attributed to the variety of differing factors associated with Fair Trade such as industry, relative wages, location (Krumbiegel et al., 2018), disparate measures of welfare, and multi-certification. The aim of this paper is to critically review the literature published within the past fifteen years on fair trade's impact on development among arabica coffee growers, as well as to suggest future changes to research that would allow for clearer and more substantial findings. Additionally, this paper discusses the potential impact of the COVID-19 pandemic on the effectiveness of the Fair Trade coffee industry in promoting development.

2. Current Findings

There are several key questions answered in current literature in order to determine whether fair trade certification among coffee farmers encourages development.

2.1 How does fair trade advantage producers?

Coffee prices, and farmer income subsequently, are the most obvious measure of fair trade's impact. While these statistics do not translate directly into welfare, they represent one of the central ideas of the movement--that producers are compensated "fairly" for their coffee. Unsurprisingly, current literature has found consistent price impacts as a result of FT. Dragusanu et al. (2014) found that FT farmers globally get higher prices for their product, while Arnould, Plastina, and Ball (2009) saw a positive price impact across Peru, Guatemala, and Nicaragua. This is an expected impact, since coffee price is clearly defined by the certification organization and tied directly to the FMP and FP. Naegele estimates that the portion of the retail price premium of FT coffee that makes its way to producers is between one sixth and one seventh (2020, 9), only slightly higher than Dragusanu & Nunn's estimate that price benefit to FT farmers is 0.12 cents for every 1 cent that the difference between the FT and conventional coffee prices increase (2018, 18). On a global scale, Gingrich and King (2012) showed that the average annual per farmer benefits is up to $100 when market prices for coffee are low, a significant increase in many developing countries around the globe. In addition, Méndez (2010) found that certifications in general, especially Fair Trade and organic, work as networks to direct funding for development towards coffee-producing households and support capacity building. Multiple studies have found that FT is associated with greater access to credit and higher perceived economic stability (Dragusanu et al., 2014; Ruben and Fort, 2012), suggesting that producers enjoy spillover economic benefits beyond what is stipulated through fair trade. Each of these studies suggest that FMP and FP can be successful in achieving the higher and more stable prices that they strive for.

2.2 Do the benefits of fair trade outweigh its costs?

While the above findings should suggest that producer incomes rise, research has not shown this to be consistent. Dragusanu & Nunn (2018) found evidence that FT is associated with higher incomes for the owners of coffee farms in Costa Rica, but Ruben and Fort (2012) instead found that there were no significant income gains for FT coffee farmers in Peru during their study. In spite of the fact that farm-gate prices for producers may increase, they will not see a rise in income unless they are able to sell above a certain threshold amount of coffee. In some cases, fair trade has a harmful effect on income as farmers may not be able to break even in the face of new costs associated with certification. The FT application, for example, can cost their cooperatives upwards of $3200 in order to sell their beans (Herrell et al. 2017, 13). Beuchelt et al. (2009) found that for one Nicaraguan cooperative, average yield would need to increase by half in order to break even, although the prices they received for organic-fairtrade coffee were the highest among surrounding cooperatives. Combined with financial illiteracy, this trend created what they described as a "vicious cycle of indebtedness (Beuchelt et al. 2009, 10)." If FT certification fails to increase farmer incomes, it is unable to lift general welfare among participating farmers.

If FT is able to increase incomes in some cases, it is also integral to examine changing expenditures in farmer households. Studies show that when FT gains to income are significant, they can be utilized in several different ways. Meemken (2017) found that higher coffee income was commonly used on education, supported by the fact that FT does not allow child labor "thus reducing the opportunity cost of attending school." Ruben and Fort (2012) found that increased wealth among farmers in Peru caused higher levels of animal stocks and accumulated agricultural assets. Both of these factors are widely associated with development in the field of economics. Yet in the same study, Meemken et al. (2017) also found no effects on food expenditures and nutrition, an indicator that is opposite to what is expected as poverty is reduced. The "stickiness" of poverty is heavily reliant upon a wide range of factors, and the current set of literature examining fair trade's impact on poverty is similarly mixed. In Ethiopia, Jena *et al*. (2012) and Mitiku et al. (2017) saw no significant impact on poverty, although the first study concluded that FT was found to increase income among coffee farmers while the other did not. In 2015, Chiputwa (2015, 407) found that fair trade reduced the poverty gap by 9–11 percentage points among the population of their study in Uganda. Clearly, the impact of fair trade has not been consistent throughout time and across different coffee-producing regions of the world. Recent studies have shown that many growers are only able to sell a portion of their FT certified beans year to year due to excess supply (Meemken et al. 2017, Dragusanu & Nunn 2018), with only 35% of the coffee certified by Fair Trade USA being sold at fair trade terms in 2018 (Fair Trade USA, 2019). Since the information above has shown that a significant proportion of Fair Trade producers are not able to break even and the FMP is set at a rate that is intended to cover average production costs for FT producers when the price of conventional coffee does not, certified coffee that is not sold on fair trade terms appears to have negative contributions in situations where there is little development impact.

3. Obstacles in Research

Factors endemic to the fair trade coffee industry such as differing measures of development, price fluctuations over time, changing FT policies, multi-certification, and local context (Mitiku et al. 2017) make it extremely difficult to provide findings with clear causality and sound methodology. The first major inconsistency within current literature is tied to how welfare is defined. Since there is no single definitive factor signifying development within the field of economics, researchers rely on a myriad of variables commonly correlated with increased welfare. This makes it difficult to directly compare the impacts of fair trade across different studies. Meemken et al. (2017) discusses, in addition, that many studies measure economic outcomes using short-term indicators like price or income from individual years. While the lack of historical data related to all certification schemes (Herrell et al. 2017, 5) makes it difficult to create studies spanning longer periods of time, this fact limits the relevancy of current research to the specific price and FT policy context during the period of study.

Secondly, many existing studies are only open to limited assessment as a result of unclear methodology, which may not be sufficiently randomized. As explained by Dragusanu & Nunn (2018), certification is an endogenous variable within this context, meaning researchers cannot easily conclude that it causes development or higher incomes because it may result from those

very same factors in some circumstances. While the technical and ethical challenges of RTCs make natural experiments favorable to researchers, only a small number of these studies address the endogeneity of fair trade certification. Propensity score matching (PSM) has been used by a handful of more recent studies to simulate randomized control groups, but is susceptible to bias by only accounting for observed covariates. A rise in attaining multiple certification schemes as they become popular also makes it increasingly difficult to balance propensity scores between comparison and treatment groups. Although a large-scale RCT would be most sound in measuring the impact of Fair Trade certification, well-described PSMs over an extended period are the most feasible and should be utilized more readily in future studies.

In spite of varied findings from these studies, the realities that they portray may suggest an alternate form of evidence against fair trade. Conventional coffee prices fall as market supply outweighs demand, yet during periods of low prices fair trade coffee is caught at the FMP. This price floor ensures that the economic benefits of fair trade are highest when conventional coffee is the cheapest and the difference between the two markets is greatest. Therefore, farmers should be most motivated to become or remain certified during these extended periods. Unfortunately, supply also outweighs demand in the current fair trade market (Meemken et al. 2017; Dragusanu & Nunn 2018), and this demand is unlikely to expand when the price of unprocessed conventional coffee is low since the price change is minimized for consumers throughout the supply chain. Evidence from the previous section supports the idea that the amount of FT coffee sold is an important factor in seeing developmental benefits, yet a significant portion of certified coffee is not purchased due to low demand (Meemken et al. 2017; Dragusanu & Nunn 2018). Data from between 1999-2014 showed that just 12% of FT certified coffee among the sample population of Dragusanu & Nunn (2018, 3) was sold as fair trade. These periods when conventional coffee prices fall below the floor price are simultaneously periods when farmers see the greatest effects of being FT, need the FMP most, and have the lowest chance of being able to sell certified beans in the competition of the over-supplied FT market.

In effect, this system draws in producers with the promise of a stable floor price which it is incapable of consistently delivering to all FT certified producers. These predictions are consistent with anecdotal evidence from Beuchelt et al. (2009), who found that many producers judged both certified and conventional prices overall insufficient for expenditures. Within the fair trade market, this issue can be alleviated by balancing the amount of producers with an increase in demand for specialized beans. Alternatively, without evidence that FT demand will augment, fair trade can only become more effective if certified or conventional producers choose to leave the coffee industry altogether. Further data collection is required to support these predictions and pose the question of why cooperatives remain certified if the farmers are not able to attain fair trade benefits for a large percentage of their beans.

These predictions also apply to the impending impacts of the COVID-19 pandemic. Economic downturns across the world are likely to drive down the demand for socially-conscious specialty coffee. For every extra dollar fair trade programs generate for coffee farmers, Gingrich and King found that consumers pay between $4 and $11 extra (2012, 26). A shift away from FT beans as consumers are no longer willing to pay these prices for a socially-conscious product would worsen the overall development prospects for cooperatives that

have already invested to become Fair Trade certified, and may encourage many producers to discontinue cooperative participation or certification.

4. Conclusion

Current studies, although potentially vulnerable to data biases, have consistently displayed an increase in coffee price among FT farmers. Yet the income in participating cooperatives, and by extension "lift" out of poverty, has not followed the general trend of coffee price seen in each study done. From an economic standpoint, factors such as income show that effects of Fair Trade can range between beneficial and insignificant for cooperatives and individual producers. This is likely due to the oversupply of FT beans that prevents producers from selling all of their certified product on fair trade terms. Future studies of Fair Trade should utilize RTCs or well-explicated PSM methods in order to solidify the complex nebula of variables that play a role within the coffee industry. The market impacts of the COVID-19 pandemics may force FT cooperatives to sell a higher percentage of certified beans through alternative supply chains, dampening the potential of seeing significant benefits from the FT system. Overall, the label trade marker displayed to consumers on the packaging of fair trade coffee has yet to comprehensively symbolize the long-term development that is expected as an end result of its initiatives.

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