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THE ECONOMICS OF FAIR TRADE

Raluca E. Dragusanu
Daniele Giovannucci
Nathan Nunn

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ABSTRACT

Fair Trade is a labeling initiative aimed at improving the lives of the poor in developing countries by offering better terms to producers and helping them to organize. In this survey, we provide a critical overview of the economic theory behind Fair Trade, describing the potential benefits and potential pitfalls. We also provide an assessment of the empirical evidence of the impacts of Fair Trade to date.

Raluca E. Dragusanu
Harvard University
1805 Cambridge Street
Cambridge, MA 02138
rdragus@fas.harvard.edu

Daniele Giovannucci
Committee on Sustainability Assessment (COSA)
502 6th Street
Mount Gretna, PA 17064
DG@theCOSA.org

*****Nathan Nunn
*****Department of Economics
*****Harvard University
*****1805 Cambridge St
*****Cambridge, MA 02138
*****and NBER
*****nunn@fas.harvard.edu

Fair Trade is a labeling initiative aimed at improving the lives of the poor in developing countries by offering better terms to producers and helping them to organize. Although Fair trade certified products still comprise a small share of the market – e.g., Fair Trade certified coffee exports as a share of global coffee exports was 1.8% in 2009 – there has been very rapid growth over in the past decade.¹ Fair Trade coffee sales have increased from 12,000 tonnes in 2000 to 123,200 tonnes in 2010 (Fairtrade International, 2012b, p. 41).

Whether Fair Trade can achieve its intended goals has been hotly debated in academic and policy circles. In particular, debates have been waged about whether Fair Trade makes “economic sense” and is sustainable in the long-run. Development economist, Paul Collier, in his book *The Bottom Billion*, writes that “They [Fair Trade certified farmers] get charity as long as they stay producing the crops that have locked them into poverty.” (Collier 2007, p. 163) In a recent article, *The Economist* writes: “perhaps the most cogent objection to Fairtrade is that it is an inefficient way to get money to poor producers.” (The Economist, 2006) On the other side of the debate are those that argue that Fair Trade does in fact benefit farmers by providing higher incomes and greater economic stability. For example, Laura Reynolds (2009, p. 1083) writes that Fair Trade “offers farmers and agricultural workers in the global South better prices, stable market links and resources for social and environmental projects” and that

¹ The statistic is for coffee sold as Fairtrade by FLO International. Statistics on Fairtrade exports are from Fair Trade Labelling Organizations International and statistics on total exports are from International Coffee Organization.

it “provides consumers with product options that uphold high social and environmental standards.”

The emergence of modern Fair Trade labels can be traced back to 1988, when a faith-based nongovernment organization from the Netherlands began an initiative that aimed to ensure that growers of crops in low-income countries were provided “sufficient wages.” The organization created a fair trade label for their products. It was called Max Havelaar, named after a fictional Dutch character who opposed the exploitation of coffee pickers in Dutch colonies. Over the next few years, the concept was replicated in other countries across Europe and North America, with a number of organizations emerging, such as TransFair and Global Exchange. In 1997, the various national labeling initiatives formed an umbrella association called the Fairtrade Labelling Organizations International (FLO). A common Fair Trade Certification mark was launched in 2002 and there are several Fair Trade bodies operating today.

In 2012, FLO’s largest adherent, Transfair USA, split from the organization in to launch a parallel label, Fair Trade USA. One of the primary reasons for the division was the difference in beliefs about whether the Fair Trade label should only be available to small-scale producers. While FLO believes that certification should generally be restricted to small producers, Fair Trade USA feels that that large producers and plantations should also be certified.

“Fairtrade”, the one word form, is used by Fairtrade International for their certification mark and for references to their specific market. We use “Fair Trade” to refer to the general initiative and movement without reference to a particular certification.

Fair Trade attempts to achieve several goals, the primary and best-known is to provide prices that deliver a basic livelihood for producers. In addition, Fair Trade has a number of other goals, including longer-term buyer-seller relationships that facilitate greater access to financing for producers; improved working conditions; the creation and/or maintenance of effective producer or worker organizations; and the use of environmentally friendly production processes. A third-party certification process regularly checks that producers and suppliers adhere to a set of requirements whose purpose is to achieve these objectives. The Fair Trade label that is displayed on certified products is a signal to consumers that the product was produced and traded in accordance with these requirements.

Fairtrade is one of the many voluntary sustainability standards that have emerged. These standards share some common overlapping goals but each has its own focus and priorities. In addition to Fair Trade, other certification standards include Organic, Rainforest Alliance, and UTZ Certified and there are similarly prominent labels for different products such as those of the Forest Stewardship Council, Marine Stewardship Council, Roundtable on Sustainable Palm Oil, and Global G.A.P.²

The aim of this article is to provide a critical overview of the economic theory behind Fair Trade, describing the potential benefits and potential pitfalls. We also provide an assessment of the empirical evidence of the impacts of Fair Trade to date.

² For information on Organic, see the website of the International Federation of Organic Agricultural Movements at <http://www.ifoam.org>. For information on UTZ Certified, see <https://www.utzcertified.org>. For Rainforest Alliance, see <http://www.rainforest-alliance.org>. For Forest Stewardship Council, see <https://us.fsc.org>. For Marine Stewardship Council, see <http://www.msc.org>. For Global G.A.P., see <http://www.globalgap.org>. Also see the summary in Reynolds, Murray and Heller (2007) and Potts et al. (2014).

The Mechanisms of Fair Trade Standards

The stated goal of Fair Trade is to improve the living conditions of farmers and workers in developing countries. Because coffee is the most traded product in the Fair Trade market, our discussion here focuses on the specifics of this industry, although we will also point out some important differences with other commodities as they arise. The specific mechanisms for achieving this goal are a combination of guidelines for price negotiation and requirements for certification, which we summarize here.

1) *Price floor.* The central characteristic of Fair Trade is the minimum price for which a Fair Trade certified product can be sold to a Fair Trade buyer, which is intended to cover the average costs of sustainable production and meet a broadly determined living wage in the sector (originally set in accordance with the data of the International Coffee Organization). A Fair Trade buyer agrees to pay certified producers at least the minimum price when the world price is below this. In all situations, producers and traders remain free to negotiate higher prices on the basis of quality and other attributes. By providing a guaranteed minimum price for products sold as Fair Trade, the price floor is intended to reduce the risk faced by growers. As we discuss in more detail below, there is no guarantee that all coffee that meets the certification requirements and is eligible to be sold as Fair Trade is indeed sold as such. Just producing and certifying a product does not guarantee that a buyer will purchase it as Fair Trade and provide the associated benefits and price. The relationship between the guaranteed minimum price and the market price between 1989 and 2014 is shown in Figure 1. Although in recent years, the market price of coffee has been higher than the Fair Trade minimum price, data from the price crashes of the late 1990s and early 2000s indicates that the price

floor provided significant risk protection to farmers who were selling their coffee as Fair Trade certified.

2) *Fair Trade premium.* Another important characteristic is a price premium, often termed the community development or social premium. This is paid by the buyer to the supplier or cooperative organization in addition to the sales price. Prior to 2008, for coffee this was set at 10 cents per pound, but is now 20 cents per pound with 5 cents earmarked for productivity improvement. The premium is designed to foster the associativity and democratic process that are tenets of the Fair Trade philosophy. The specifics of how the premium is to be used must to be decided in a democratic manner by the producers themselves. Projects that are typically funded with the Fair Trade premium include investments made to increase farmer productivity, investments community infrastructure such as the building of schools, health clinics and crop storage facilities, offering training for members of the community, the provision of educational scholarships, improvements in water treatment systems, conversion to organic production techniques, and so on.

3) *Stability and access to credit.* Fair Trade buyers agree to long-term contracts (at least one year and often several years) and to provide some advance crop financing to producer groups (up to 60 percent) if it is requested.

4) *Working conditions.* Where workers are present, they must have freedom of association, safe working conditions, and wages at least equal to the legal minimum or regional averages. Some forms of child labor are prohibited.

5) *Institutional structure.* Farmers are encouraged to organize as associations or cooperatives, where decisions are made democratically and with a transparent

administration that can facilitate sales and administer the premium paid to the organization in an accountable manner. For some products, such as tea, bananas, pineapples, and flowers, larger enterprises can become Fair Trade certified.³ In such larger enterprises, joint committees of workers and managers must be formed and democratically structured.

6) *Environmental protection.* Certain harmful chemicals are prohibited for Fair Trade production. The environmental criteria are meant to ensure that the members work towards good environmental practices as an integral part of farm management by minimizing or eliminating the use of less desirable agrochemicals and replacing them, where possible, with natural biological methods, as well as adopting practices that ensure the health and safety of farm families, workers, and the community. Producers must provide basic environmental reports summarizing their impacts on the environment. The production of genetically modified (GM) crops by farmers is not allowed. (In practice, this is only relevant for a few crops for which GM varieties are available, namely cotton and rice.)

For a product to be sold under the Fair Trade mark, all actors in the supply chain, including importers and exporters, must also be Fair Trade certified. The standards are tailored for each crop and for the different actors involved in the chain. The dominant entity in the global Fair Trade system is Fairtrade International (FLO), which is

³ For several key crops such as cocoa and coffee that are smallholder dominated, FLO believes that certification should generally be restricted to small producers. However, Fair Trade USA (a former member of FLO under the name Transfair USA) believes that unorganized producers and plantations should also be certified and this difference is a fundamental reason for its recent split from FLO and its subsequent certification of some larger producers under its own label.

responsible for setting and maintaining standards for all commodities, and an independent certification company FLO-CERT, which is in charge of inspecting and certifying producers and traders.⁴

To obtain the Fair Trade certification, producer organizations, firms or qualified farms submit an application with FLO-CERT. If the application is accepted, the organization goes through an initial inspection process carried out by a FLO-CERT representative in the region. If the minimum requirements are met, the organization is issued a certificate that is usually valid for a year and can be renewed following re-inspection. During the early years of Fair Trade, inspection and certification were free of charge. However, since 2004 producer organizations must pay application, initial certification, and renewal certification fees.

In addition to Fair Trade, there are a number of other certification standards, together classed as Voluntary Sustainability Standards. Examples include Organic, Rainforest Alliance, Forest Stewardship Council, Ethical Tea Partnership, UTZ Certified, Marine Stewardship Council, Smithsonian Migratory Bird Center, and Global GAP. The basic logic behind the certifications is that they provide information to consumers about particular attributes of products and the production process.

Certification and Credible Information for Consumers

⁴ There are number of other Fair Trade organizations. Among them is Fair Trade USA which uses another independent certifier but generally accepts FLO-Cert as equivalent.

One important rationale for the Fair Trade initiative is that it provides credible information to the consumer. A number of consumers may derive utility from the manner in which a good is produced, rather than simply the physical characteristics of the final product. Although many consumers prefer to purchase goods produced in a socially and environmentally responsible manner (and would be willing to pay more for these goods) and many producers would be willing to produce in this manner (particularly for a higher price), without a credible way to differentiate between more-responsible and less-responsible production processes, a market for responsibly-produced products may not exist. The Fair Trade label, as well as other third-party certifications, provides the consumer with information about the nature of the production process. It also provides producers a way to credibly signal the nature of the production process. In this way, certifications, such as Fair Trade, can provide information that facilitates mutually beneficial transactions that otherwise would not occur.

A number of studies have formally modeled the logic of Fair Trade, finding that if consumers value the nature of the production process, then voluntary certifications unambiguously improve aggregate welfare. For example, Podhorsky (2010), focusing on environmental standards, shows that in an environment with heterogeneous firms, a voluntary certification program never decreases consumer welfare. Similarly, Podhorsky (2013b) shows that in a two-country model of North-South trade with differentiated products, voluntary certifications improve aggregate welfare.

However, all of this relies on consumers caring about whether goods are produced in a socially or environmentally responsible manner. Do consumers in fact

care about this? A number of studies have tackled this question, attempting to quantify the extent to which consumers are willing to pay for responsible production.

Hertel, Scruggs, and Heidkamp (2009) survey 258 individuals and find that 75 percent of coffee buyers report that they would be willing to pay 50 cents extra for a pound of coffee (approximately 15 percent of the sales price) if it was Fair Trade certified. Over half would be willing to pay \$1 more per pound.

Complementing the evidence from survey questions asking about hypothetical scenarios is evidence from field experiments that observe real-life behavior. Hainmueller, Hiscox, and Sequeira (2011) conduct a number of experiments in 26 stores, belonging to a major US grocery chain. The authors randomly placed Fair Trade labels on bulk bins of coffee that were Fair Trade certified. In a second experiment, the authors also randomly varied the prices of the coffee. Each treatment lasted four weeks. The authors found that sales were 10 percent greater when the coffee was labeled as Fair Trade. They also found that demand for more expensive (and arguably higher quality) Fair Trade coffee was insensitive to price, which is consistent with an earlier finding by Arnot, Boxall and Cash (2006) for brewed coffee sold at a Canadian University. Interestingly, demand for a cheaper and lower quality coffee was sensitive to the price: a 9 percent increase in price resulted in a 30 percent decline in demand. In a follow-up experiment using coffee sold on eBay, Hiscox, Broukhim, and Litwin (2011), find that on average, consumers are willing to pay a 23 percent premium for coffee labeled as Fair Trade.

In a series of auxiliary experiments looking at fair trade labelling for nonfood consumer items, Michael Hiscox and various coauthors have accumulated a large

amount of additional evidence that confirms the findings from Hainmueller, Hiscox, and Sequeira (2011). Examining fair labor standards for candles and towels sold in a large retail store in New York City, Hiscox and Smyth (2011) find that the label increased sales by 10 percent, and when combined by a price markup of 10-20 percent, sales rose even more, in the range of 16-33 percent. Examining consumers' willingness to pay for goods using an auction environment on eBay, Hiscox, Broukhim, Litwin, and Wolowski (2011) find that consumers paid a 45 percent premium for polo shirts labeled as being certified for fair labor standards.

Overall, the evidence from these experiments indicates that consumers value production that occurs according to Fair Trade standards and they believe that certification conveys credible information.

Does Fair Trade Work?

In side-by-side comparisons, Fair Trade certified producers do receive higher prices, follow specified work standards, and use environmentally-friendly methods. We review this evidence, but also explore the more difficult questions of interpretation. Are the changes that are *correlated* with Fair Trade production also *caused* by certification or is some other factor like the entrepreneurial capacity of the producer affecting both outcomes? What factors make producers more likely to join Fair Trade? What may happen to the advantages of receiving a higher price from being a Fair Trade producer as more producers seek to join? After taking these factors into account, the balance of the evidence does suggest that Fair Trade works—but the evidence is admittedly both mixed and incomplete.

Fair Trade and Higher Prices: Direct Comparisons

There is overwhelming evidence that Fair Trade certified producers do receive higher prices than conventional farmers for their products. For example, Mendez et al. (2010) surveyed 469 households for 18 different cooperatives in four countries -- El Salvador, Guatemala, Mexico, and Nicaragua -- during the 2003/2004 coffee harvest. In all four countries, they find a significant positive relationship between average sales price for coffee and both Fair Trade and Organic certification. In a study of 845 coffee farmers from southern Mexico during the 2004/2005 season, Weber (2011) finds that farmers who were Fair Trade and Organic certified received an average of 12 cents more per pound of coffee sold.

Bacon (2005) examines the sales price of coffee during the coffee price crisis of 2000/2001 for a sample of 228 coffee farmers from Nicaragua and finds that Fair Trade certified farmers obtained significantly higher prices for their coffee. Farmers selling coffee as Fair Trade received an average price of \$0.84 per pound (net of costs paid to the cooperative for transport, processing, certification, debt service, and export), farmers selling coffee as Organic received \$0.63 per pound, while farmers selling conventional coffee to a cooperative received \$0.41 per pound. (Since Fair Trade (and/or Organic) farmers are not able to sell all of their coffee as certified, the average price received by certified and conventional farmers for their full harvest is lower than the figures above. Fair Trade and/or Organic farmers received an average price of \$0.56 per pound, while conventional farmers received an average price of \$0.40 per pound.)

In a follow-up study, Bacon, Mendez, Gomez, Stuart and Flores (2008) attempt to get a better sense of the causal mechanisms behind these differences. Examining the same set of Fair Trade certified farmers as in Bacon (2005), they find that 100 percent of these farmers felt that the cooperative they certified with helped them obtain higher prices. This figure can be contrasted to the response of farmers in conventional cooperatives. Among this comparison group only 50 percent for farmers felt that the cooperative helped them obtain higher prices.

Given the price premium and price floor associated with Fair Trade, it is unsurprising that Fair Trade certified farmers receive higher prices. However, what is less obvious *ex ante* is whether production volumes and, as a consequence, total incomes would be affected by certification. Overall, the evidence does suggest that Fair Trade is often also associated with higher output and higher incomes. Arnould, Plastina, and Ball (2009) examine 1,269 farmers from Nicaragua, Peru, and Guatemala in 2004/2005 and find that in addition to higher prices, Fair Trade certified farmers also have greater sales and higher incomes. Jaffee (2009) also finds the same pattern for 51 coffee producers (26 Fair Trade certified and 25 conventional) from Oaxaca, Mexico, surveyed between 2001 and 2005. He also finds that Fair Trade certified producers were less likely to experience food shortages and had diets that contained more meat, milk, and cheese.

Interpreting the Evidence: Causality and Selection into Certification

Of course, simple comparisons of certified and non-certified farmers raise obvious questions. Perhaps the characteristics that cause farmers to become Fair

Trade certified also cause farmers to produce and sell more, to produce better quality coffee that sells for a higher price, and to earn more income as a result. Therefore, such comparisons may not capture a causal effect.

Well aware of these empirical difficulties, a number of studies have attempted to reduce the bias in their estimates through the use of matching methods. Intuitively, rather than compare Fair Trade farmers to non-Fair Trade farmers, matching estimates instead compare each certified farmer to conventional farmers that are similar based on observable characteristics that may affect their propensity to certify and be successful producers, such as educational attainment, age, family size, farm size, specialization of production, farm tenure, value of assets, and so on. The hope is that by matching on these characteristics, one is then comparing a Fair Trade certified farmer to an otherwise similar conventional farm.

Using this method, Beuchelt and Zeller (2011) examine 327 members of coffee cooperatives in Nicaragua and find that farmers associated with Fair Trade cooperatives are able to obtain higher prices for their coffee (as are Organic producers). In contrast, Fort and Ruben (2009) and Ruben and Fort (2012) examine 360 coffee farmers from three Fair Trade certified cooperatives and three non-certified cooperatives in Peru. They find no statistically significant evidence that Fair Trade certified farmers receive higher prices, using either ordinary least squares or matching estimates.

Although arguably a methodological improvement, matching estimates also have their own shortcomings. The choice of which variables should be used to match farmers is not clear. Certain variables like the age of the household head, along with experience or educational attainment, are arguably exogenous, but other variables like farm size,

specialization or diversification of production, the legal status of farm tenure, and value of assets may be endogenous to the certification process itself. In addition, matching requires that the omitted factors be observable. If the important omitted factors are unobservable, like the entrepreneurial zeal of farmer, the bias arising from this factor cannot easily be eliminated.

Yet another strategy, though less commonly employed, is to examine a panel of producers over time rather than just a cross-section in one time period. In this way, one can examine whether a producer begins to obtain higher prices (for example) just after they become Fair Trade certified. Using such a strategy, Dragusanu and Nunn (2013) examine an annual panel of 262 coffee mills from Costa Rica between 1999 and 2010. They find that Fair Trade certified mills receive 5 cents more per pound for exports than conventional mills. They find no difference between Fair Trade certified and conventional mills in terms of the total quantity sold or exported.

Causality and Selection into Certification

Another way to tackle the question of causality is to develop a deeper understanding of what determines which cooperatives choose to become Fair Trade certified (and which farmers choose to join Fair Trade certified cooperatives). Again, the primary concern is that the “best” farmers or cooperatives in some difficult-to-observe but real way become certified and also produce more and obtain higher prices – that is, that there is positive selection into Fair Trade.

At a theoretical level, it is unclear whether the selection into Fair Trade should be positive or negative. On one hand, Fair Trade intentionally targets producers who are small and economically disadvantaged, with limited capital, market access, and bargaining power, which suggests that they may be negatively selected. In addition, because the price premium is a fixed amount, it is relatively more appealing (i.e., is a larger share of the final price) for producers selling lower quality coffee. This too suggests negative selection. On the other hand, farmers and cooperatives who join Fair Trade tend to have some measure of organizational ability, social cohesion, and governance, which suggests the possibility of positive selection.

Seeking to better understand the nature of selection into Fair Trade, Dragusanu and Nunn (2013) interviewed members of Fair Trade certified cooperatives and conventional mills in Costa Rica. They found four important determinants of certification. First, it turns out that many mills in Costa Rica often also operate stores that sell agricultural products, including certain chemicals (primarily pesticides) that are banned under Fair Trade requirements. The mills that obtain greater revenues from selling banned chemicals find Fair Trade more costly and are less likely to certify. Second, mills that forecast lower prices in the future perceived a greater benefit from Fair Trade's price floor, and thus were more likely to join. Third, individual farmers who believed in environmental or socially responsible farming practices were more likely to join Fair Trade. Finally, access to information about the logistics of becoming certified and managerial ability were also important. While positive selection likely arises from the last determinant, the nature of selection from the first three is ambiguous.

Some empirical studies have estimated how various factors affect the probability of certification, usually by estimating a propensity score to match farmers belonging to certified mills with conventional producers. These studies tend to find evidence that point towards negative selection. For example, Saenz-Segura and Zuniga-Arias (2009) estimate a very strong negative relationship between Fair Trade certification and experience, education, and income within a sample of 103 Costa Rican coffee producers. This finding is echoed in Ruben and Fort's (2012) study of 360 Peruvian coffee farmers (also see Fort and Ruben (2009)). In their sample, farmers that are less educated and own smaller farms are more likely to become certified.

This question of how farmers via cooperatives select into Fair Trade is important and understudied. We view the evidence as incomplete, but suggestive of negative selection. If this is the case, then the correlational evidence may actually understate the true causal impacts of Fair Trade.

Fair Trade in the Long-Run: Dynamics and the Role of Free Entry in Production

We now turn to the question of the dynamics of Fair Trade. Consider the case in which a small number of producers in a country are Fair Trade certified. Thus, for the same yield and quality of coffee, certified farmers earn more than the other producers in the region. Other producers observe this outcome, and, if they qualify, will likely apply to become Fair Trade certified. In other words, entry will occur. Over time, as more producers become Fair Trade certified, holding constant the total demand for Fair trade, the proportion of each FT farmer's output that can be sold as Fair Trade declines. Many economic models have the property that entry dissipates rents. In this case, entry could

continue until the expected benefits of Fair Trade certification just equals the cost to producers. The rents that originate from the greater utility consumers obtain from consuming Fair Trade certified products end up all going to paying the costs of certification. This process of dissipation is the centerpiece of the model developed in de Janvry, McIntosh, and Sadoulet (2012). It is also a feature, though less central, in a number of other models of Free Trade, e.g. Podhorsky (2010).

Based on the predictions of their model, de Janvry, McIntosh, and Sadoulet (2012) argue that free entry represents the death knell for the notion that Fair Trade can actually help farmers in the long-run. However, there are a number of other aspects one needs to consider before accepting this conclusion. First, a number of barriers to certification limit the extent of entry. An important barrier is limits on farm sizes. For example, when it comes to coffee, Fairtrade International targets small family farms that do not hire permanent labor year round.

Second, and most importantly, Fair Trade and other certification standards include many nonmonetary goals: creating better conditions for hired workers, creating democratic and transparent cooperatives, encouraging environmentally sustainable production, improving access to credit, and establishing stable long-term buyer-seller relationships. If a high level of entry means that higher-than-normal economic rents are fully dissipated, it also means that these other outcomes are spreading. Indeed, other certifications like UTZ, Organic, Bird Friendly, and Rainforest Alliance have an even greater focus than Fair Trade on goals other than increased incomes for farmers.

This aspect of certification is illustrated in the model developed by Podhorsky (2010). Although the certification in her model is for environmentally responsible

production, the logic is identical to that for Fair Trade certification. In her model, although excess profits are competed away by free entry as firms choose more environmentally responsible production processes, consumers are unambiguously better off because they value environmentally sustainable production. Here certification and free entry work together to increase the prevalence of sustainable production.

This link between free entry and rents provides an interesting dilemma for certification agencies. On the one hand, they wish to induce the spread of socially and environmentally responsible production as much as possible. On the other hand, they may also wish to structure certain limits to entry so that they can continue to maintain higher-than-average rents for certified producers.

Free Entry into Certifications

Another important issue that is not yet fully understood is the consequence of entry into certification. Fairtrade International (2012a, p. 47) report that in 2011, 80 percent of Fair Trade certified producers organizations reported holding at least one additional certification. Sixty one percent also held Organic, eight percent had Rainforest Alliance and seven percent also had UTZ.

An important role of certifications is to provide credible information to the consumer about the nature of the production process. A potential concern is that if there are many different standards with distinct yet overlapping requirements then certification may introduce a measure of confusion and may therefore be less effective.

A second issue is related to the incentives and potential agency issues that can arise. In general, it may not always be in the interest of the certifying agency to fully enforce certification requirements. Although this is potentially a concern with third-party NGO-based organizations, it is particularly a concern with private certifications. A concern is that more recent private certifications may be little more than smart marketing and attempts to cash in on consumers' willingness to pay for sustainably produced products. The existence of these additional certifications may affect consumers' views about the validity and reliability of third-party certifications generally.

A final issue is that from the producer's perspective, multiple certifications mean multiple reports, multiple audits, greater administrative costs, and a greater tax on scarce managerial capital. Further, it is possible that the existence of multiple standards may decrease the extent to which farmers can fully understand and benefit from each certification. For example, Valkila and Nygren (2009) found that Nicaraguan farmers belonging to Fair Trade certified cooperatives had a poor understanding of Fair Trade, including its requirements, and potential benefits. According to the authors, one reason was the multiplicity of certification schemes, quality standards, and rural development projects faced by farmers. They simply were not able to keep track of them all and to distinguish one program from another. Mendez et al. (2010) also found that farmers were often unclear or confused about certifications, particularly about Fair Trade, although farmers did have a better understanding of Organic certification.

Overall, the consequences of the rapid growth of certifications are something we know little about, although it is potentially very important.

Does Fair Trade Provide Greater Financial Stability to Farmers?

Fair Trade seeks to increase financial stability for certified farmers through a number of mechanisms, including higher prices, a price floor, financing from purchasers and coops, and longer-term ties between producers and buyers. The evidence seems to indicate that in many environments these benefits are observed. However, there are important exceptions. For example, Reynolds (2009) collects information from interviews and focus groups with members and leaders of four cooperatives in Peru and Mexico. She reports that corporate buyers of coffee, what she calls “market driven” buyers (e.g., importers that sell to Starbucks, Nestle, and Costco), in practice often refuse to buy from cooperatives that request credit. She also finds that these market-driven mainstream buyers, unlike other Fair Trade buyers, are less willing to enter into longer-term stable contracts. They often sign one-year contracts as a minimum Fair Trade requirement, but do little else to create longer-term partnerships with suppliers. However, despite the behavior of these corporate buyers, she still finds that the producer cooperatives view financing as the second-most beneficial aspect of Fair Trade -- after the price floor.

Other studies confirm that Fair Trade has succeeded in increasing the credit available to farmers. Bacon et al. (2008) finds that, within a sample of 177 Nicaraguan coffee farmers, 77 percent of Fair Trade certified farmers reported that their cooperative provided pre-harvest credit, while this figure was only 33 percent for farmers belonging to conventional cooperatives. Mendez et al. (2010), examining data from 469 households from four Latin American countries, find that Fair Trade certified farmers are more likely to report having access to credit than conventional farmers. Interestingly,

they find no relationship between Organic certification, in which Organic buyers are not required to provide access to credit. This finding suggests that differences in access to credit may be due to a causal effect of Fair Trade rather than selection. If “better” farmers are more likely to certify with Fair Trade and Organic, then one might also have expected a similar relationship between farms and credit to exist with Organic certification too. Absence of such a relationship is thus evidence against positive selection.

Perhaps the most important tool through which Fair Trade aims to provide greater stability to farmers is the price floor. However, not all coffee produced by Fair Trade certified farmers can be sold for the Fair Trade price. In the Mendez et al. (2010) sample of Fair Trade-certified farmers from four Latin American countries, 60 percent of certified coffee was sold as Fair Trade. Among the four Fair Trade cooperatives interviewed by Dragusanu and Nunn (2013), the proportion of coffee sold in the previous year as Fair Trade was 10, 40, 53 and 80 percent. These figures are in line with FLO’s official statistics that report that on average 45 percent of coffee sold by Fair Trade certified producers is sold on Fair Trade terms. This figure is slightly higher for bananas (72 percent), cane sugar (54 percent), cocoa (61 percent), and cotton (60 percent) (Fairtrade International, 2012a, p. 44)

Although empirical evidence remains limited, existing studies often find that Fair Trade certified farmers perceive and experience greater economic stability than conventional farmers. For example, Bacon (2005) examines a sample of 228 coffee farmers from Nicaragua and finds that Fair Trade farmers report being less concerned about losing their farm in the coming year than conventional farmers.

The Impacts of Certifications on the Environment

Fair Trade and other environmental labels have been successful in promoting more environmentally-friendly farming practices among certified farmers. For example, Jaffee (2009) finds that among a sample of 51 Mexican coffee farmers -- 26 Fair Trade and 25 conventional -- there is a strong association between Fair Trade certification and environmentally friendly farming practices, such as composting, live fences, and terracing. Figure 2 shows the differences in these practices by reporting the proportion of Fair Trade producers and proportion of conventional producers in his sample that were engaged in each practice. In all five cases, the differences between the two groups are statistically significant. Similarly, based on a sample of 177 coffee farmers from Nicaragua, surveyed in 2006, Bacon et al. (2008) find that 68 percent of Fair Trade farmers had implemented ecological water purification systems, compared to 40 percent for conventional farmers. Moreover, 43 percent of Fair Trade farmers had implemented soil and water conservation practices, while only 10 percent of conventional farmers had done so.

Other certifications that target the environment also seem to increase environmentally friendly farming practices. For example, Blackman and Naranjo (2012) examine the impacts of Organic certification among 2,603 coffee farmers in Costa Rica (36 of them certified organic and 2,567 conventional). Using propensity score matching, they find strong evidence that organic farmers are less likely to engage in the use of pesticides, herbicides and chemical fertilizers and they were more likely to use organic

fertilizers, shade trees, and windbreaks, and to undertake a variety of soil conservation measures.

How Certifications Affect Local Governance and Institutions

The empirical evidence on whether Fair Trade has been able to successfully strengthen local institutions remains limited. In their study of 360 randomly sampled coffee farmers in Peru, Ruben and Fort (2012) show that when comparing Fair Trade certified farmers matched conventional farmers, they are more likely to strongly identify with their cooperative and are more likely to believe the cooperative is important and helpful in the sales process. Interestingly, these differences are only robustly statistically significant when comparing Fair Trade and conventional farmers that are both also certified Organic.

There is also evidence that suggests that Fair Trade does not foster stronger institutions. Elder, Zerrifi and LeBillon (2012), examining 107 coffee farmers from Rwanda in 2009, find that membership in a Fair Trade certified cooperative is associated with less trust in the leaders of the cooperative. By contrast, they found no difference on trust in the members of one's own community. Along similar lines, Saenz-Segura and Zuniga-Arias (2009), using propensity score matching among a sample of 103 farmers from Costa Rica, find that, relative to conventional farmers, Fair Trade certified farmers identify less with their cooperative and perceive their cooperative to function more poorly.

These quantitative findings suggest a pattern of tension between farmers belonging to Fair Trade certified cooperatives and the cooperative itself that is consistent with the qualitative findings from a number of studies. Prevezer (2013) interviewed farmers belonging to Fair Trade certified coffee cooperatives in Tanzania. He found that farmers commonly complained of a lack of communication about the use of the premiums, the reasoning behind decisions, and the decision-making process itself. Prevezer also found evidence of elected farmers on the boards misusing the funds -- for example, by paying themselves for attending meetings. In their case study of a Fair Trade coffee cooperative in Costa Rica (*Coopermontes de Oro R.L.*), Saenz-Segura and Zuniga-Arias (2009) found a significant amount of distrust in the cooperative arising because of deficient management in the past. Mendez et al. (2010) report evidence, from farmer surveys, of dissatisfaction and concern over a lack of transparency, accountability, and communication on the part of cooperative members (i.e., farmers) directed towards cooperative leaders across four Latin American countries.

An important factor is likely a lack of knowledge about Fair Trade on the part of farmers and particularly about the existence and intended nature of the Fair Trade price premium. In their case study of a Fair Trade coffee cooperative in Costa Rica, Saenz-Segura and Zuniga-Arias (2009) found that one-third of producers did not know about the existence of a premium and about half felt that they had not receive any benefits from Fair Trade certification. As another example, Fort and Ruben (2009) find that among 180 Fair Trade-certified coffee farmers from Peru, 12 percent did not know about the existence of the Fair Trade premium and 77 percent felt that they did not receive any benefits from the premium.

Although much more research is needed, one can imagine a number of theoretical reasons why Fair Trade certification could erode trust and increase tensions within a cooperative. With certifications come increased rents. With more at stake, it is natural that tensions may escalate. In addition, because the specifics of Fair Trade remain opaque to members, this may directly cause increased suspicion on their part.

Distributional Considerations of Fair Trade

According to the World Fair Trade Organization and Fairtrade International (2009, p. 4), Fair Trade seeks to contribute “to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers.” In this quotation, as in many discussions, producers and farm owners are often lumped together with workers as being potential beneficiaries of certification. But to what extent are the benefits of certification felt by the farm owners and how many reach the hired workers?

In the coffee industry, the majority of farms are small and family-run with few hired workers that tend to be seasonal harvesters. In addition, the cooperative itself may hire workers. While coffee and cacao are primarily stallholder crops, commodities, like bananas, citrus fruits, and tea are more commonly produced on large plantations. For these products, certification has been expanded to also include larger plantations with the same general principles of Fair Trade being followed, although details of the certification standards vary by product and by organizational form (e.g., plantation vs. cooperative).

The evidence on the distribution of the benefits of Fair Trade remains limited, but the available studies suggest that, within the coffee industry, Fair Trade certification benefits workers little or not at all. Valkila and Nygren (2009) interviewed 94 producers and 64 hired workers from 11 Nicaraguan coffee cooperatives over a six-month period in 2005 and 2006. They found that although the records of Fair Trade farmers indicated that they received higher prices for their coffee, the workers (like the rest of rural Nicaragua) were paid the minimum wage and were not given benefits like social security, medical care, vacation, pension, and paid sick leave. Dragusanu and Nunn (2013) come to a similar conclusion in their empirical study of the impacts of Fair Trade coffee in Costa Rica. Examining a panel of over 110,000 individuals annually between 2003 and 2010, they find that while Fair Trade certification is associated with significantly greater incomes for farmers, it is not associated with increased incomes for hired workers.

Jaffee's (2009) direct comparison of 26 Fair Trade farmers and 25 conventional farmers from Oaxaca, Mexico in 2002/2003, also suggests that few of the benefits of Fair Trade are passed on to workers. Although he finds that the average price obtained by Fair Trade certified farmers is 130 percent higher than for conventional farmers (13.22 vs. 5.74 pesos per kilogram), the wages paid to hired workers are only 7 percent higher (47 vs. 44 pesos per day). As a result, labor costs (measured as a share of coffee sales) were lower for Fair Trade certified farms than for conventional farms (57.2 versus 68.3 percent).

Looking outside of coffee, the effects of Fair Trade on workers are more noticeable. When large plantations are certified, Fair Trade regulations pay particular

attention to workers (who comprise a larger group relative to farm owners in these products). In the case of plantations, certification requires workers' freedom of association, safe and equitable working conditions, the absence of forced or child labor, and salaries that are at least as high as the established minimum wage. In addition, certification requires that workers form a democratically elected workers' organization if one does not already exist.

Ruben and van Schendel (2009) survey workers from two banana plantations in Ghana, one Fair Trade certified, the other not. Comparing 50 workers from the conventional plantation with 50 matched workers from the Fair Trade plantation, they find that workers in the conventional plantation received a higher base salary, but they worked longer hours and received fewer fringe benefits. Fair Trade workers felt a greater sense of identity and co-ownership with the plantation. Granville and Telford (2013) survey 381 workers (273 Fair Trade workers and 108 conventional workers) in South Africa's wine industry. Directly comparing the two groups, they find that Fair Trade workers are more likely to make more than minimum wage and as a result they are also able to save more of their income. Consistent with this, 91 percent of Fair Trade workers said in survey results that Fair Trade (and their membership in the joint body) was responsible for improving their living standards. In particular, 95 percent of workers reported that Fair Trade provided help with education and/or health (and 51 percent reported being helped with both).

Another distributional concern is whether Fair Trade results in greater inequality between farmers that are certified and those that are not. Kadow (2011) examines this possibility theoretically in a Ricardian model of North-South trade. In the model, Fair

Trade and conventional coffee are differentiated products. The price of Fair Trade coffee is higher and the price gap is due to preferences of Northern consumers for consumption of coffee produced in a socially responsible manner. In the model, Fair Trade increases global welfare. This arises primarily by reducing the income differences between the North and South since there is diminishing marginal utility of income. In addition, because Fair Trade increases the incomes of certified producers in the South and does not benefit conventional producers, Fair Trade would theoretically increase inequalities within the South.

While it is clearly true that Fair Trade certified farmers benefit more from Fair Trade, in reality there are reasons why non-certified farmers may also gain (or even those outside of the coffee industry). The primary reason that non-certified farmers may benefit from Fair Trade is due to the use of the price premium for projects that benefit the broader community, such as education, health care services, water, electricity, road infrastructure, etc. Dragusanu and Nunn (2012) describe a scholarship program, Children of the Field Foundation, initially implemented in Costa Rica by COOCAFE using Fair Trade premiums. Since its implementation in 1996, the program has provided scholarships to 2,598 students and financial support to 240 schools. COOCAFE estimates that in total, over 5,800 students have been helped by the foundation.

Dragusanu and Nunn's (2013) empirical study of Fair Trade coffee producers in Costa Rica is one of the few studies that directly estimates potential spillovers from Fair Trade certification. In their panel analysis, they estimate the impacts of more Fair Trade certification on households but living in the same area. They find that incomes of households (that are not coffee producers) increase as the extent of Fair Trade

certification increases in a district. Although not conclusive, this finding provides preliminary evidence that spillovers may exist and may be positive.

The model developed by Podhorsky (2013a) illustrates another mechanism through which certification can benefit conventional farmers. In the model, a small number of oligopolistic intermediaries buy from local producers and sell to foreign buyers. (This is the typical structure of the industry.) In her model, the existence of a Fair Trade certification decreases the market power of intermediaries, and as a result, even producers that do not choose to become Fair Trade certified benefit. It is interesting to note that the original impetus for Max Havelaar was to correct the exploitation of coffee farmers by middlemen due to a severe imbalance of bargaining power. Therefore, Podhorsky's model (2013a) seems particularly appropriate for thinking about Fair Trade and its spillovers.

Conclusions

Many consumers value goods produced in a socially and environmentally responsible manner. As a result, efficiency and welfare gains are possible from credible third-party certifications, like Fair Trade, that provide consumers with information about the production process.

The existing empirical evidence, based primarily on conditional correlations, suggests that Fair Trade does achieve many of its intended goals, although on a comparatively modest scale relative to the size of national economies. Fair Trade farmers do on average receive higher prices, have greater access to credit, perceive

their economic environment as being more stable, and are more likely to engage in environmentally friendly farming practices. However, some aspects of Fair Trade and its consequences are not yet well understood. There is evidence that farmers in Fair Trade cooperatives may not be fully aware of the details of Fair Trade and can sometimes mistrust those who run the cooperative. Another issue is the trade-off between limiting certification to small-scale disadvantaged producers and allowing larger plantation-style producers to also become certified. By scaling-up Fair Trade and increasing entry into certification, the increased entry may dissipate some of the monetary benefits of certification.

Some scholars have argued that consumers may be better off using institutions that directly transfer benefits to producers in developing countries rather than using market-based mechanisms like Fair Trade. We are skeptical that anything resembling direct transfers is preferable. It has long been recognized that direct transfers of money distort incentives, diverting effort away from productive activities and towards rent-seeking and corruption. For example, a number of recent empirical studies show that foreign aid (whether it is economic, military or food aid) increases conflict (Crost, Felter and Johnston, forthcoming; Dube and Naidu, 2012; Nunn and Qian, forthcoming). In our view, the largest potential benefit of market-based systems like Fair Trade is that they do not distort incentives in as deleterious a way as foreign aid. Instead, they work within the marketplace and reward productive activities and production processes that are valued by consumers and that are good for the local environment and economy.

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Table 1. Number of Fairtrade producers and workers by product.

Product	Number of producers and workers
Coffee	580,200
Tea	258,100
Cocoa	141,800
Seed Cotton	66,500
Flowers and Plants	37,500
Cane Sugar	37,200
Banana	20,300
Fresh Fruit	18,700
Nuts	14,300

Notes: Data are from "Monitoring the Scope and Benefits of Fairtrade, Fourth Edition, 2012," Fairtrade Labelling Organizations International (2012).



NB: For Arabica coffee, Fairtrade Price = Fairtrade Minimum Price (140 cents/lb) * + Fairtrade Premium (20 cents/lb)**
 When the New York price is 140 cents or above, the Fairtrade Price = New York price + 20 cents
 *Fairtrade Minimum Price was increased June 2008 & April 2011 **Fairtrade Premium was increased June 2007 & April 2011
 The New York Market price is the standard daily settlement price of the 2nd position Coffee C Futures contract at ICE Futures U.S.
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Figure 1. Fairtrade price and the market price for coffee, 1989-2014.

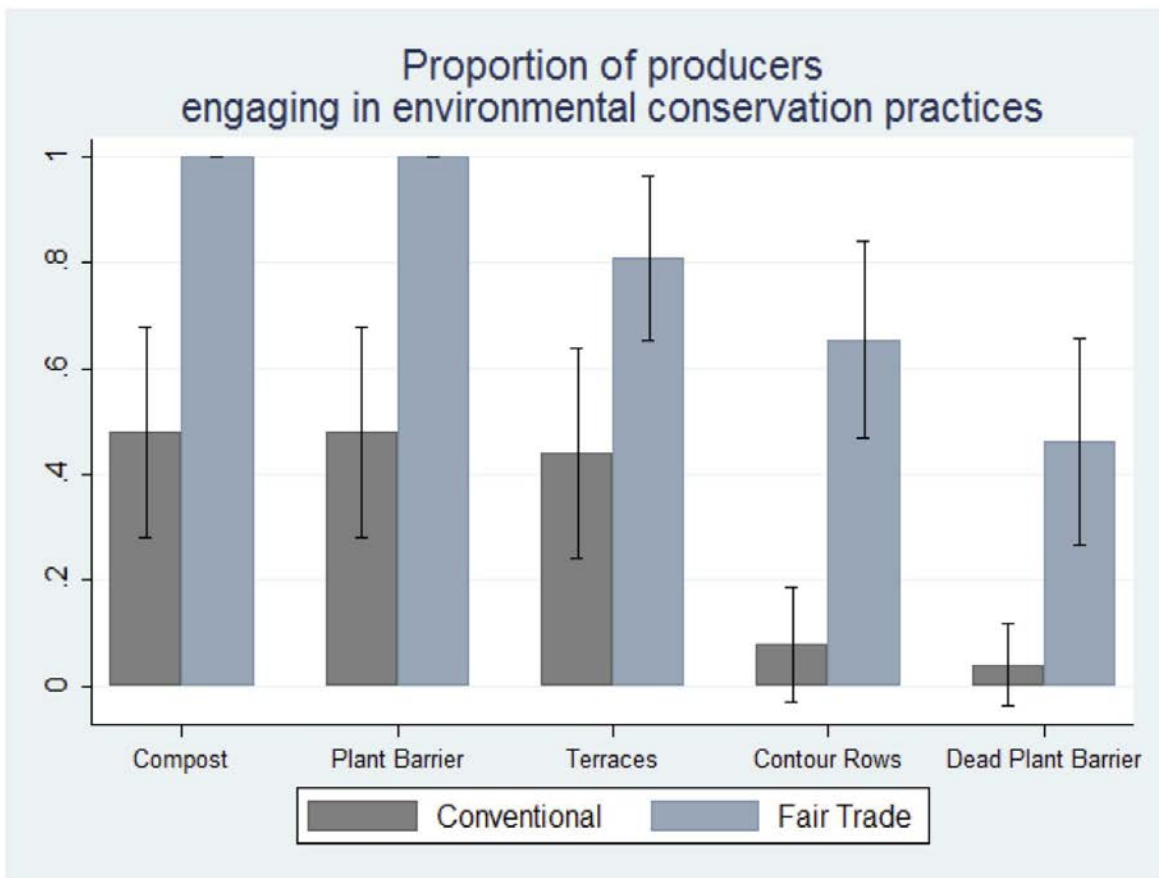


Figure 2. Differences in environmental practices between Fair Trade and conventional coffee producers in Oaxaca, Mexico. Averages (and 95 percent confidence intervals) are reported for 25 Fair Trade farms and 26 conventional farms. Source: Jaffee (2009, Chapter 9, Table 6).