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*A Failure of Fair Trade or a Market Failure? An
Example for Basic Microeconomics*

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A Failure of Fair Trade or a Market Failure?

An example for Basic Microeconomics

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Abstract: Fair Trade is a consumer driven movement that aims to improve working conditions and incomes of poor farmers and artisans. This article will help principles instructors discuss economic arguments both for and against Fair Trade in examples that can be used throughout the semester. While economists have largely denounced the Fair Trade movement as an inefficient subsidy, this stems from an incomplete view of what the movement involves and assumptions that may not be appropriate. A detailed look at all tenets of Fair Trade will help us point out the market failures and potential positive externalities present in these markets.

JEL Codes: A22, F13, D43. Key Words: Fair Trade, Imperfect Markets, Externalities

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1. Introduction

The economic benefits of free trade have long been standard fare in the principles of economics courses. However, the term *Fair Trade* is becoming increasingly popular among our students. Do not be alarmed! Undergraduates have not suddenly started reading Stiglitz (*Fair Trade for All*, Stiglitz and Charlton, 2006), where he argues that the structure of the global trading regime should be altered to assist less developed economies. However, undergraduates who are involved in campus ministry, social action committees, or progressive student organizations have been quietly changing the coffee that we drink on campus. They sell handicrafts from India and Nepal to raise money for their spring break service trips. These globally aware students have even ditched their beloved Snickers bars for Divine chocolates, produced by farmer cooperatives. They are all active in a global movement called Fair Trade, whereby farmers and artisans in developing countries are able to earn a sustainable income for their families.

Fair Trade is largely considered the bailiwick of sociologists, political economists, and business ethicists. Economists, beginning with LeClair (2002), have labeled the Fair Trade movement as an inefficient subsidy, making poor farmers dependent on low profit goods, and others have found Fair Trade to be a “suboptimal outcome from an economic welfare perspective” (Yanchus and deVanssay, 2003). However, I argue in this paper that these findings stem from a narrow view of what Fair Trade means. First, I will give a brief overview of the requirements of Fair Trade producers, as outlined by the Fairtrade Labelling Organization (FLO), an international governing body. Then, I’ll show how simple economic models (principles level) can be used to show the drawbacks of Fair Trade, and why these models might not be appropriate for the markets being discussed. Finally, I’ll propose some additional ways that Fair Trade might be economically justifiable in other theoretical models.

Given the student interest in both free and Fair Trade, the basic microeconomics student can get a broad understanding of the topic by introducing it throughout the semester. Alternatively, Fair Trade could be introduced in a one or two class period module on alternatives to the standard trade model.

While progressive, it generates exceptional student interest, particularly when students of varied backgrounds are present. Science students may appreciate the discussion of diversity and organic production. International or peace studies students will often bring up the inherent unfairness of the global trading regime. We then have the opportunity to frame these discussions using appropriate economic arguments.

2. What is Fair Trade?

“Fair Trade is a trading partnership, based on dialogue, transparency and respect, that seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers – especially in the South. Fair Trade organizations, backed by consumers, are engaged actively in supporting producers, awareness raising and in campaigning for changes in the rules and practice of conventional international trade.” (Krier, 2001)

The modern Fair Trade movement was shaped in Europe in the 1960s, beginning largely with handicrafts. Oxfam, a British non-governmental organization, launched a program in 1965 that sold imported handicrafts in stores in the UK and from mail-order catalogues. The program was created to support the work of cooperatives and community enterprises in the developing world. In the early 1980s, the Fair Trade supporters became increasingly worried by the impact of the fall of agricultural commodity prices on poor producers. The first Fair Trade agricultural products were coffee and tea, quickly followed by cocoa, sugar, fruits and others.

The modern Fair Trade movement is led by Fairtrade International (formerly the Fairtrade Labelling Organisation, and still referred to as FLO), which is a world-wide umbrella organization that sets the standards and certifying procedures for agricultural commodities labeled “Fair Trade.” FLO certifies both producer groups and traders, ensuring customers that the principles of Fair Trade are met. There are over 991 Fairtrade certified producer organizations in 66 countries, which represent over 1.2 million farmers and workers and over 3,000 different products. Demand for Fair Trade items is also growing substantially, with global sales reaching US\$6.6 billion in 2011 (Fairtrade International, 2012). There are other certifying bodies (Fair For Life) that cover additional products and producers,

membership organizations for handicrafts (WFTO), and newer movements for certifying products made in developed countries (called “Domestic Fair Trade”). However, all these groups subscribe to a similar set of principles that include a living wage, decent working conditions, democratic decision making among producer groups, access to capital, and sustainable practices. Therefore, these numbers should be considered a lower bound on those who are being served by Fair Trade principles.

Given the breadth of products covered by Fair Trade, this paper will use coffee as an example of a Fair Trade commodity. The general principles are applied to coffee production such that:

- (1) Small farmers are required to work with a cooperative or other democratic association of producers that has a transparent administration that is non-discriminatory (Fairtrade Labelling Organizations International, 2009);¹
- (2) Traders are required to pay the higher of the market price for coffee or the Fairtrade minimum price (currently \$1.40 per pound for washed Arabica beans);
- (3) Traders are required to pay a \$0.20 per pound Social Premium to be used by the cooperative to improve living conditions or farming practices, (Fair Trade USA, 2011).
- (4) Traders are required to supply pre-financing for up to 60% of the contract value prior to shipment, if requested (FLO, 2009).
- (5) Traders must use agreements that allow for long term planning and sustainable production practices (FLO, n.d.).

The \$1.40 Fairtrade minimum price for washed Arabica coffee was set by estimating the cost of sustainable production, and these prices are revised from time to time (most recently, in April 2011). Alternative prices are set for Robusta and unwashed beans, to allow for more realistic prices for various quality products. A 30 cent per pound premium is also required for cooperatives that are certified organic (Fair Trade USA, 2011). Repeated relationships are shown to stabilize farmer income

¹ Fair Trade USA announced in September 2011 that they would split from FLO over ideological differences. These include opening up coffee certification to plantations and certification of clothing supply chains.

(consumption and income smoothing), as well as allow the trader to provide feedback on improving the coffee crop (Murray, et. al., 2003).

3. Introducing Students to Fair Trade

One of the very first principles that students learn is that economics is about tradeoffs. Fair Trade is an easy introduction to the equity-efficiency tradeoff, one which can be used to introduce students to Fair Trade at the beginning of a course. Many economists dislike (or disprove of) Fair Trade because it lacks efficiency. Students will learn (at some point in the semester) that the social premium given to producers is a subsidy that causes price and quantity distortions. This lack of efficiency makes society as a whole worse off, leading to a smaller economic pie. However, the proponents of Fair Trade are more concerned with equity. They would prefer that poor farmers receive a larger slice of the economic pie through more direct trading relationships.

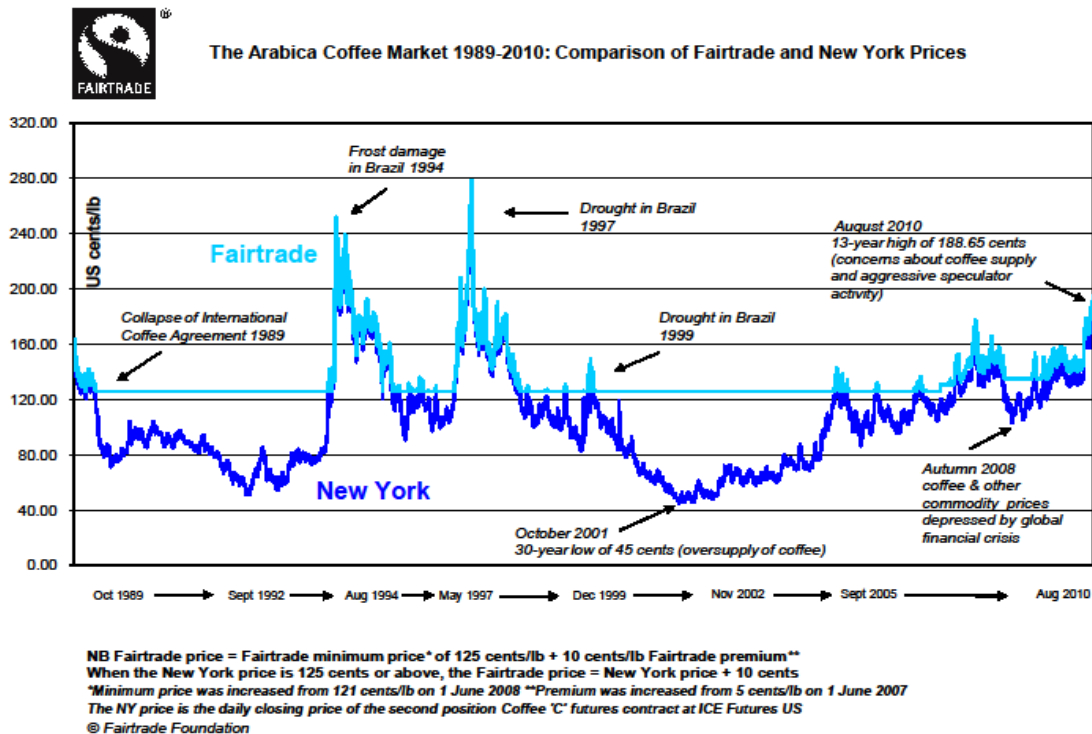
Implementing this in the classroom is easy, even for students without knowledge of the Fair Trade movement. Ask if there are students who might be willing to pay more for a t-shirt made with fair labor practices than one produced in a sweatshop (or would they pay more for an organic banana as opposed to one with heavy fertilizer use). Some students (maybe all, due to peer pressure or type of school) will raise their hand. Now ask what the tradeoff is. How many students will realize that they will have less money to buy other products? For instructors who intend to use Fair Trade as an example throughout the semester, a short introduction to Fair Trade principles might be useful at this point in the lecture. The Fair Trade Resource Network is an independent institution that has excellent resources of use to practitioners, activists, instructors, and students (see <http://www.fairtraderesource.org/learn-up/> for more information).

4. Fair Trade in Supply and Demand

After covering price ceilings and price floors, remind the students of the basic structure of Fair Trade in Coffee. Students should be able to see that a major tenet of Fair Trade is a price floor. If coffee prices are high, the market price is used, and the floor is not effective (or binding). When the

market price for coffee is below the FLO minimum price, there is a binding price floor. Figure 1 demonstrates that the ICO indicator price for coffee has been below the FLO minimum for long stretches of time. When the price floor is non-binding, it generally results from low supply caused by drought or frost in Brazil – a large coffee producing country.

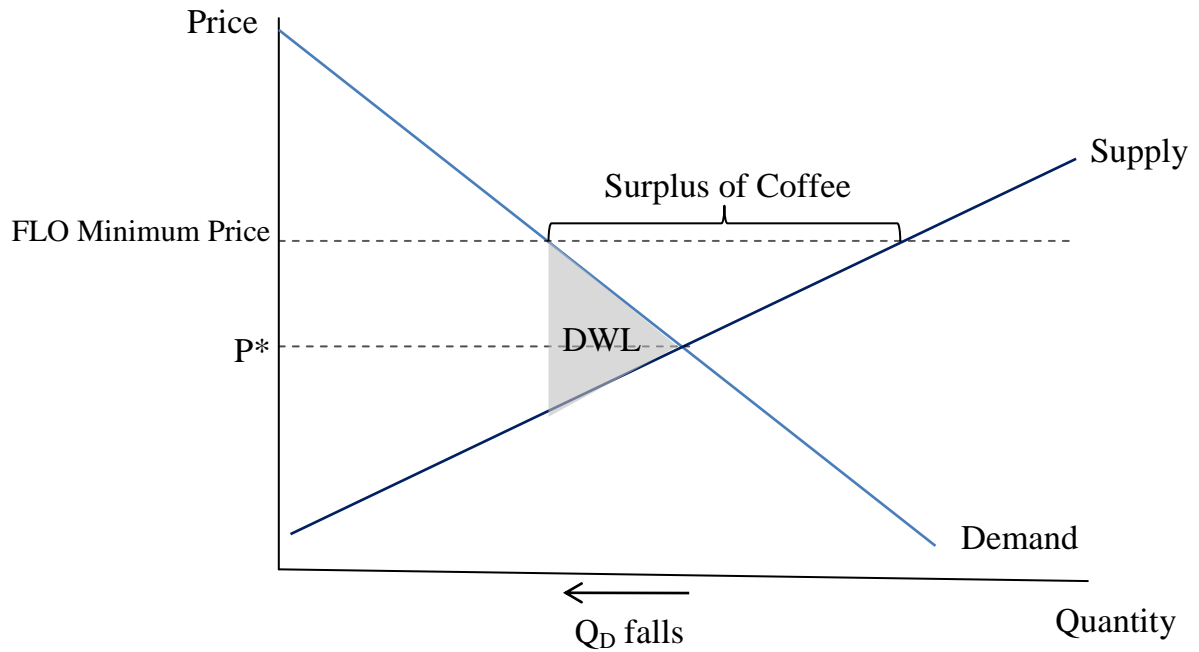
Figure 1. Fair Trade and Conventional Pricing



Source: Fairtrade Foundation, 2010.

With the standard supply and demand model, a binding price floor leads to a lower quantity demanded and a surplus of coffee, as seen in Figure 2. The minimum price increases the producer surplus of the farmers who are able to sell at the minimum price, but eliminates the producer surplus of the farmers who are unable to sell their product. This reasoning leads most economists to say that while Fair Trade may benefit some farmers, the minimum price will lead to overproduction and non-affiliated producers will suffer (LeClair, 2002). Couple this with the higher prices that consumers must pay and a reduction in consumer surplus, and a deadweight (efficiency) loss is apparent.

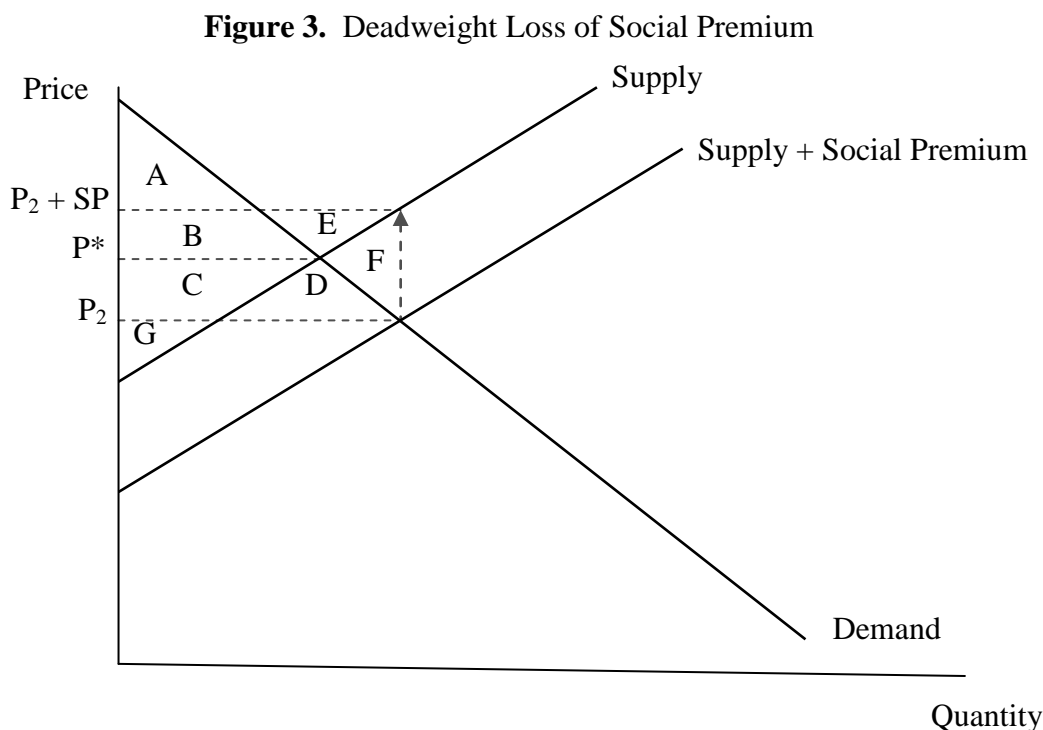
Figure 2. Binding Price Floor



However, as stated earlier, the FLO minimum price is not binding all of the time. With a non-binding price floor, the overproduction, surplus and deadweight loss from the price floor is eliminated. However, even when the market price is above the FLO minimum price, another Fair Trade principle will cause a distortion. Recall that Fair Trade buyers must pay a Social Premium of 20¢ per pound of coffee sold under the Fair Trade label, which is then used for improving farming practices or local living conditions.

Figure 3 depicts a subsidy, and can be explained in a series of steps. First, the Fair Trade producers will increase supply because of the subsidy, lowering the world price for coffee to P_2 . Fair Trade producers will then receive the world price plus the social premium, or $P_2 + SP$, on that increased production (an assumption that is relaxed in the Appendix). Consumers are better off at P_2 , by areas C + D, but society must pay the social premium for each unit sold, or areas B + C + D + E + F, This results in a net loss of B + E + F to consumers. Producers are better off, gaining areas B + E.

Between the consumer's loss of $B + E + F$ and the producer's gain of $B + E$, the deadweight loss is area F .



The economics literature on Fair Trade has generally focused on the social premium. The cost of implementing the price support is shown to be larger than the cost of a direct cash subsidy to farmers (LeClair, 2002). In the context of a trade model, the Fair Trade farmers see increased income, but non-targeted (or conventional) producers will be made worse off due to the lower price (Yanchus and de Vanssay, 2003).² Further, the subsidy increases the dependence on low value commodities – not the panacea out of poverty that Fair Trade is supposed to be.

5. Why teach Fair Trade if it is inefficient?

The existing literature and a standard view of price floors and subsidies might leave the reader with a grim view of Fair Trade as a tool for improving inequality in trading relationships. However, by

² For more advanced students, the LeClair paper could be covered in intermediate level Microeconomics courses. The Yanchus and deVanssay paper could be used as an example in an International Trade course after the Heckscher-Olin model is developed.

treating Fair Trade as just a price floor or a subsidy, we are oversimplifying the Fair Trade model.

First, within the supply and demand model, assumptions of a single good and perfect competition may not be appropriate for the smallholders in coffee that Fair Trade typically targets. Secondly, there are several potential positive externalities from the principles of Fair Trade. The rest of this section examines these arguments, which can demonstrate to principles students how the underlying assumptions of the model have an impact on the expected outcomes.

5.1. Failure of the Assumptions

5.1.1 One good or differentiated products?

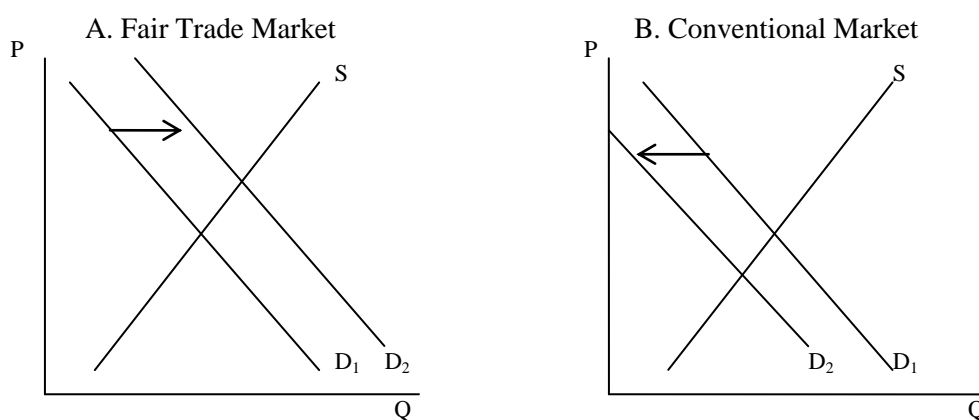
Questions of market definition rarely come up in the basic microeconomics course and are more commonly seen intermediate theory or industrial organization electives. The model in the previous section relied on the assumption that all coffee was the same. However, consumers might view Fair Trade coffee and conventional (non-Fair Trade) as distinct commodities, or *differentiated products*. Arnot, Boxall and Cash (2006) estimate cross-price elasticity of demand between Columbian (conventional) coffee and Fair Trade coffee through an experiment. Based on their calculations, particularly the finding of a low cross price elasticity of demand for Colombian when the price of Fair Trade coffee increased, they conclude that “consumers in our study who purchase Fair Trade products view it more as a distinct product category.” Or, consumers may believe that when they buy Fair Trade coffee, they are also reducing poverty through their purchase. Willingness to pay a higher price in this case implies a *bundled good*, particularly since Fair Trade retailers often promote the product *in addition to* the “story” behind it.

Although he focuses on the subsidy, LeClair (2002) makes note of this, saying that alternative trading organizations attempt to increase demand for the product. Empirical studies have shown that certain consumers are willing to pay more for organic products (Bernard and Bernard, 2009) and some Fair Trade certified products (Arnot, Boxall, and Cash, 2006 and Hainmueller, Hiscox and Sequeira,

2011). Why are some consumers willing to pay more ($P_2 + SP$) for Fair Trade products?³ Behavioral economics discusses the “ethical consumer” who cares about traditional product attributes (quality, quantity, price), but also cares about other ethical dimensions of products, including organic, Fair Trade, free range and sweat-free (Starr, 2009). Students in more advanced courses could analyze these differential demands through the lens of indifference curves.

In analyzing differentiated products, students would need to draw separate markets for Fair Trade and Conventional coffees. If more consumers source their coffee ethically, leading to higher demand for Fair Trade coffee (panel A in Figure 4), there will likely be a reduction in demand for conventional coffee (panel B). The lower price in the conventional market will make its growers worse off, precisely the negative effect that Yanchus and De Vanssay (2003) predicted. However, a significant change in price is unlikely, due to the relative size of the two markets. Fair Trade coffee represents only 1.8% of all coffee sales and 3.8% of specialty coffee sales in the US (TransFair 2006a). Thus, the magnitude of the shift will likely be small, reducing the negative impacts.

Figure 4. Differentiated Markets for Coffee



5.1.2. Is perfect competition likely?

The special situations faced by farmers in developing countries deserve more than a standard trade model. The assumption of perfect competition is often violated in developing economies. In the

³ See the Appendix for the Supply and Demand Analysis if this is not the case.

case of coffee, local middlemen, referred to as “coyotes” in Latin America, will buy up coffee from several small farmers and bring it to the miller, usually in a more distant, larger city. While the standard model assumes that a coffee farmer will sell to the middleman willing to give him the highest price, there are notable exceptions in the coffee trade. Small farmers are often limited, having only one local “coyote” to sell to, which gives that coyote monopsony power over the grower (Altmann, 2010, and Milford, 2012), a clear violation of the assumption of perfect competition in markets. Fair Trade’s emphasis on cooperatives gives members of the coop a better balance of power, since they function as a larger unit. Further, Fair Trade is more direct – partnering roasters in the developed world with the actual growers. Elimination of middlemen with Fair Trade eliminates the exercise of market power by these coyotes.

Given that this is not a perfectly competitive market, the introduction of Fair Trade may not cause the overproduction of coffee predicted by the standard model. When going from one market failure (monopsony) to another inefficient outcome (subsidy and price floor), it is unclear what will happen to the quantity produced. However, empirical evidence gathered by the European Fair Trade Association (1998, p. 28) shows that overproduction of coffee has not occurred as a result of Fair Trade, and Jaffee (2008) also finds no evidence of overproduction among coffee farmers in Oaxaca, Mexico.⁴ Finally, Tedeschi and Carlson (2012) put forth a model that includes market imperfections and shows that overproduction is not a guaranteed outcome of Fair Trade.

In addition to imperfect markets in coffee, supporting institutions like credit and transportation are often missing or imperfect, leading to substandard outcomes. The coyotes are not simply middlemen in the coffee trade, but are generally wealthier or well connected individuals who give credit to the farmers as well. This type of interlinked contract – buying coffee and selling credit – is not uncommon in the literature, but is not presented in principles classes. Credit is advanced well

⁴ The producers in Jaffee’s study were also moving to organic production, which tends to reduce yields, so his evidence may be inconclusive.

before harvest (in the lean period), and in order to get the credit, they must also agree to sell their coffee to the middleman at harvest time, when prices are the lowest (Crabtree, 2002). While this is beneficial for the middleman it is clearly at the expense of the coffee growers. These growers become reliant on middlemen for loans since they are not served by local banks, and lack access to credit through traditional means. There is clearly asymmetric information in the credit market (in the form of no credit history), rationing of low income buyers, and significant tying of credit (to low-price purchase of future harvests).

Fair Trade principles attempt to directly overcome the market imperfections in credit. Importers of Fair Trade products are required to offer pre-financing of up to 60% of the contracted value (if requested by the producer). The pre-financing arrangements are made at world market prices and may be significantly lower than the interest rates of local moneylenders which operate in the region. In practice, Fair Trade coffee buyers may not always have the money to lend, so they offer to arrange finance through third parties that are engaged in socially responsible lending such as EcoLogic Finance and the Green Development Fund (Cycon, n.d.). Fair Trade importers offered \$840,000 in pre-harvest financing in 2002 (Transfair, 2003).

In addition to imperfections in credit markets, farmers also face difficulty with transportation infrastructure. Many farmers are isolated in the mountains (where coffee growing conditions are ideal) and lack the ability to transport their coffee to larger cities where the exporters are. As such, they may fall prey to whoever is willing and able to transport their coffee. Fafchamps and Vargas Hill (2005) found that farmers in Uganda could get a higher price by selling directly at the market, but they must incur a transportation cost to reach the market. When the crop is large, farmers are more willing to travel to market. Fair Trade might encourage this behavior through the promotion of cooperatives. Farmers operating in cooperatives can pool their coffee beans and lower individual transportation costs by exploiting economies of scale.

5.2. Positive Externalities

Many, if not most, principles of microeconomics courses will cover externalities. While examples of negative externalities are easy to find, positive ones can be more difficult. A discussion of Fair Trade offers several new examples to freshen up your lectures.

5.2.1 Poverty reduction

Poverty reduction can be considered one benefit of Fair Trade. First, there is both theoretical and empirical evidence that participation in Fair Trade should directly increase household incomes (Raynolds, 2002; Ronchi 2002). Larger incomes will help prevent families from reducing positive investments in their household when times are rough, such as nutrition, education, and medication. Not only are they getting more money for their crops, which might increase savings, but farmers will also have the ability to obtain credit, which allows for more sophisticated risk management and consumption smoothing.

Technically, this is not a positive externality itself, since it is impacting those making the choice to be Fair Trade producers, not innocent bystanders. However, if there are spillovers to non-Fair Trade producers in the same geographical area, there may be positive externalities. Competition from Fair Trade buyers might drive up the price that the middleman must pay to the farmer for his or her product. While this has not been documented in coffee, it is the case with organic bananas in Peru (Ruben et al., 2009). Jaffee (2008) finds that higher household incomes are spent locally, helping non-Fair Trade producers as well. This spread of poverty reduction is the positive externality. Another possibility is the effect on government tax receipts, should incomes rise. Higher tax receipts will enable the government to fund more health and education initiatives, helping people beyond the Fair Trade producers.

It is also possible that the social premium (subsidy) may help more than just the Fair Trade producers. If the social premium is used by the cooperative to set up schools, medical facilities or other needs of the community and these are open to non-producers, then this is a clear positive externality. About 80% of the Fair Trade cooperatives use the premium to fund health and education

programs in their communities, with the rest just distributing it as additional income to their farmers (Transfair, 2005).

5.2.2 Environmental Sustainability

Coffee was traditionally produced in forest land under a canopy of shade trees and is highly regarded in the agricultural literature since it reduces deforestation and soil degradation and improves biodiversity. However, in the 1970s and 1980s, there was a shift from traditional (shade-grown) production methods to more modern ones in full sun (plantations) (Moguel and Toledo, 1999). Aside from the destruction of forests, which increases soil erosion, the sun plantations require significant amounts of herbicides and chemical fertilizers (Perfecto et. al, 1996).

Shade grown coffee is the clear ecological winner. There is a greater number of plant and animal species (birds, mammals, and insects) on shaded coffee farms versus sun plantations (Moguel and Toledo, 1999). The microclimate provided by the shade trees improves conditions for both plants and animals in the form of protection from frost, direct sun and rain, as well as higher levels of humidity that promote life. Shade trees also provide wood for fuel and building needs, and fruits, such as avocado and citrus, which can be used within the household or sold in local markets, increasing economic diversification within the household (Protecto, et. al., 1996).

Fair Trade certifications have encouraged and expanded the positive environmental externalities in coffee production. Approximately 80% of Fair Trade certified coffee is shade grown, and 81% is organic (Transfair, 2006b). Obviously, Fair Trade farmers would not use these methods if they were not were cost effective. Further, the additional income from fruit and fuel accrues to the farmer and cannot be counted as an externality. However two externalities do exist. First, Fair Trade premiums have allowed more small farmers to continue ownership of agricultural land, lessening

deforestation and thus reducing the rate of soil erosion.⁵ Secondly, the lower use of agrochemicals leads to greater biodiversity, which helps the global economy.

5.2.3 Reduction of Negative Outcomes

Finally, expansion of Fair Trade may cause a positive externality by reducing the production of illicit crops and lowering the use of slave and child labor. The coffee growing regions of Latin America – Bolivia, Colombia, and Peru – also have perfect growing conditions for coca, the base material for making cocaine. When prices for coffee and other legal crops have fallen, the relative benefit of switching to coca has increased. In 2004, a hectare of coca yielded an annual income up to \$7,500, whereas low coffee prices led to incomes of only \$600 per hectare (Dammert, 2008). Since the price that Fair Trade producers receive (for their legal crops) is larger than it would be without Fair Trade, the opportunity cost of producing coffee goes down and fewer farmers may switch to the illicit crops (Moreno-Sanchez, Kraybill and Thompson, 2003).

Khat is a leafy narcotic chewed in Africa and the Middle East that is illegal in the US and Europe. Since Khat is faster growing, more drought resistant and can fetch higher prices on (illegal) world markets, Ethiopian farmers who earn little in coffee production are known to switch to Khat production in order to survive. This has also been seen as a detriment to the macroeconomic foundations in Ethiopia as the illegal nature of Khat means that taxes are not collected, and a much needed source of hard currency through (legal) coffee sales are not realized (Global Exchange, n.d.).

Finally, some students may be familiar with the “Raise the Bar, Hershey!” campaign, which is petitioning Hershey to change their sourcing of cocoa to Fair Trade certified farms. The major problem with cocoa is child labor and human trafficking in West African, first noted by journalists in 2000. In 2001, Senator Harken and Representative Engel were able to negotiate with chocolate companies and developed the Harken-Engel Protocol, which aimed to eliminate the worst forms of

⁵ Jaffee (2008), who studied farmers when coffee prices were extremely low, found that fewer Fair Trade growers left their farms when compared to the conventional growers.

child labor in the cocoa industry through self-regulation (Payson Center, 2011). Lack of enforcement of the Harken-Engel Protocol, along with a popular documentary “The Dark Side of Chocolate” (2010), led to the “Raise the Bar, Hershey!” campaign. Fair Trade campaigns in Europe have prompted Cadbury (Dairy Milk, 2009), Nestlé (Kit Kat, 2010), and Mars (Maltesers, 2012) to move to Fairtrade Certified ingredients in the UK and Ireland markets.

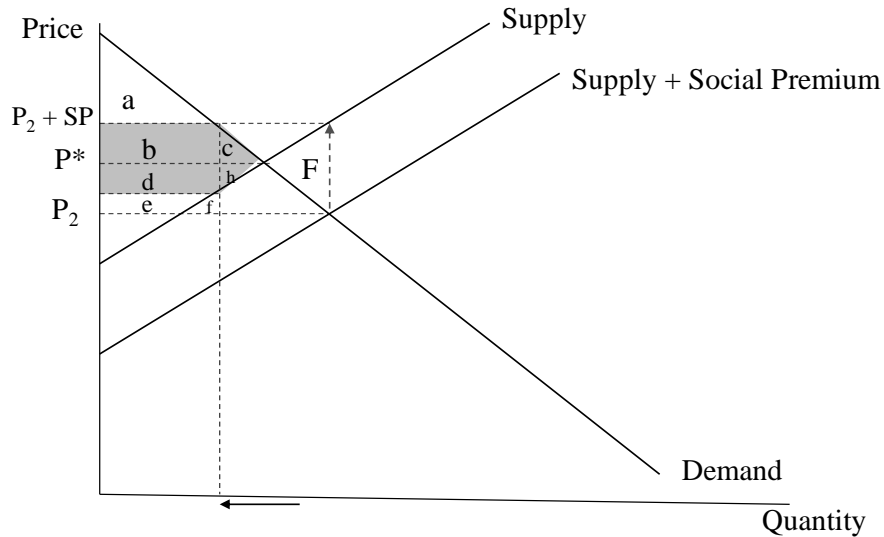
6. Conclusions

While standard economic models of Fair Trade decry the movement as an inefficient subsidy, students (and their professors) should make well-informed economic decisions. Since the models of international trade do not adequately address the economic situation that most Fair Trade farmers face, we can look to alternate assumptions as a means to focus the discussion of Fair Trade in the classroom. While market failures and externalities are commonly discussed in a basic microeconomics course, more advanced topics of interlinked markets and institutions rarely make it to the principles student. Often, comments or questions from non-economics majors required to take basic economics (ie international studies or peace studies) will provide an easy entrée into these topics, which would normally be discussed in an upper level economic development course. This might generate further interest into the economics major or minor and can provide some early advertisement for departmental electives being offered in the next semester.

Appendix

The supply and demand analysis presented in Section 3 included the traditional presentation of a subsidy. However, in the case of Fair Trade, the subsidy is paid for by the consumer, not the government, which might reduce quantity demanded. While empirical results have shown that some consumers are willing to pay more (Arnot, Boxall, and Cash, 2006 and Hainmueller, Hiscox and Sequeira, 2011), this is not the case for all consumers. The end result is a different deadweight loss than the Section 3 analysis, and is briefly outlined below.

Figure A1. Subsidy reduces quantity demanded



In this example, consumers reduce their quantity demanded due to the higher price, $P_2 + SP$, so consumer surplus is reduced by areas $b + c$. Consumers also pay the social premium for each unit sold, losing areas $b + d + e + f$. Producers in this case sell fewer units, so lose producer surplus $d + h$, although they gain the social premium of $b + d + e + f$. Producers are likely better off, having a net gain of $b + e + f - h$, and consumers experience a loss of $2b + c + d + e + f$, together implying a deadweight loss of $b + c + d + h$. Contrast this with the more simple analysis, where the deadweight loss was area F . Elasticities of supply and demand, along with the size of the social premium and Fair Trade sales, will together determine which case produces a larger deadweight loss.

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