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Fair trade: a "third generation welfare" mechanism to make globalisation sustainable*

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Abstract

Globalisation of product and labour markets has dramatically evidenced the market failure generated by the monopsonistic /oligopsonistic power of exporters dealing with unskilled workers (subcontractors). The absence of a global benevolent planner and unequal representation mechanisms in international institutions prevent the reduction of imbalances in the bargaining power between employers and unskilled workers. In a model of North-South trade we suggest that, under the existence of a share of altruistic consumers in the North, the effects of market imperfections and the absence of a global benevolent planner may be partially alleviated by a bottom-up welfare approach directly promoted by consumers of the final product. Our results also show that ethical concerns of consumers in the North might end up with reducing the welfare of workers in the South unless ethical concerned producers enter the market.
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1 Introduction

> "Proper economic prices should be fixed not at the lowest possible level, but at a level sufficient to provide producers with proper nutritional and other standards." (John Maynard Keynes, 1944)

The process known as globalisation has dramatically reduced transportation costs and deeply modified geographical patterns of trade around the world. Technological advances have increased the interdependence among individuals, by easing the time-space constraints (at least in virtual communications). As a side-effect, the increased interdependence has exasperated problems related to global public goods or "bads" and to social costs from market failures generated by missing or insufficient global governance.

A typical empirical finding which is often associated with globalisation of labour and product markets is the increase of wage skill differentials (Deardorff, 2000; Feenstra and Hanson, 2001).[1] High skilled workers take advantage from the extension of demand and are not harmed by the increased competition. By contrast, untalented workers share no benefit from the enlargement of product markets and often pay the costs of increased competition with unskilled workers from abroad.[2]

In this framework, unskilled workers in the primary product industry (above all in the agricultural and textile industries) find it difficult to step up the "skill ladder"

[1] Katz and Murphy (1992) show that the graduate/undergraduate wage ratio for workers with 1-5 years of working experience rose from 1.4 to 1.9 during the 80s. Katz and Krueger (1998) find that college workers wages rose by 25% from 1970 to 1995, against an average yearly decline of 0.11% between 1940 and 1970. The trade and wage debate highlights two main concurrent explanations for increasing skill wage differentials within industries: technological innovation and out-sourcing within industries of the least skill-intensive processes to developing countries (Rodrik, 1999).

[2] The Stolper-Samuelson theorem suggests that trade integration should benefit the factor which is locally abundant and therefore low skilled workers in developing countries. The theorem holds in the case of perfect competition and cannot be applied if purchasers of intermediate products from the North have market power.

as subsistence wage levels and barriers to trade[3] imposed by developed countries prevent them from accumulating resources which could be invested in human capital.[4] Traditional welfare approaches are unable to solve these problems because of conflicts of interests among different countries and under-representation of the interests of the poorest countries in the international institutions.

Several policy proposals of redistribution of income toward low skilled workers have been advanced in the last two decades (Dixit and Norman, 1986; Akerlof et al. 1991; Phelps, 1997). The problem is that all these schemes are often conceived to be administered by domestic governments and, therefore, tend to care only for domestic unskilled workers, while it would "make sense to include the well-being of agents in other countries within any welfare criterion" (Feenstra, 1998).

In this paper we argue that a partial solution to this problem may be found in *bottom-up* welfare mechanisms in which socially responsible consumers in developed countries do the job. To understand what we mean by bottom-up welfare, consider economic development as depending on the interaction among three powers (firms, institutions, and citizens) (Fig. 1). In this world, profit maximising firms take their investment, production, and hiring decisions without considering the negative externalities that their productive activities may generate. Individuals take their consumption and saving decisions on the basis of a narrow definition of their preferences which do not include social responsibility among their arguments. Policy makers in the institutions are far from the benevolent planner ideal and maximise the rents from being

[3]The 2002 Oxfam report, foreworded by A. Sen, calculates that tariff and non tariff barriers cost to developing countries around 100 billion dollars per year, twice as much as these countries receive in terms of international aid (Oxfam, 2002). The report also highlights that the increase by one percent of Sub-Saharan countries share of world trade could bring 120 million people above the poverty line.

[4]The empirical literature confirms that specialisation in primary products is harmful to growth (Sachs-Warner, 1997; Sala-I-Martin, 1997) and is associated to relatively higher levels of child labour (Becchetti-Trovato, 2002).

in charge. In domestic institutions they try to satisfy the needs of domestic citizens-voters, while in international institutions they tend to satisfy the needs of people living in those countries which have dominant voting power.

Let us now compare this with a situation in which bottom-up pressures are at work (Fig. 2). The system now includes a small share of agents whose voting, consuming, and saving decisions are affected by social and environmental concerns. Even a small share of agents may significantly influence the behaviour of profit maximising firms whose economic success often depends on relatively small changes in market shares, revenues, and profits. Institutions are also affected as politicians try to represent issues from these groups in order to win political support.

Common examples of bottom-up mechanisms are ethical finance, ethical banking, and fair trade. This paper aims to analyse the characteristics of fair trade. The paper is divided into six sections (including introduction and conclusions). In the second section we provide a definition of fair trade and a brief description of its characteristics showing how fair trade attempts to provide answers to existing market failures. In the third section we sketch a simple model in which a monopsonistic producer hires workers in the South to produce a good consumed in the North. Consumers are concerned about the fairness of their consumption. In section 4 we show that the entry of a Fair Trader may increase the welfare of consumers in the North and workers in the South. However, if the Fair Trader is able to reach any size it wishes, its entry increases wages and employment in the South but may reduce the welfare of the less ethic fraction of the demand. If, by converse, the Fair Trader is size constrained, then it generates an externality for all the South workers that it is not able to hire. The externality is found to be positive if the Fair Trader is able to efficiently ration the labour supply and if the size constraints do not prevent it from reaching a critical size. Finally, we show

in section 5 that without a Fair Trader, ethical preferences are harmful for workers in the South. Section 6 concludes.

2 A definition of fair trade

Fair trade is a particular trade channel through which food and textile products from developing countries are exported in the industrialised countries. Fair Trade products are required to respect a series of social and environmental criteria, defined by the Fair Trade Federation (FTF). These are: i) paying a fair wage in the local context; ii) offering employees opportunities for advancement; iii) providing equal employment opportunities for all people, particularly the most disadvantaged; iv) engaging in environmentally sustainable practices; v) being open to public accountability; vi) building long-term trade relationships; vii) providing healthy and safe working conditions within the local context; viii) providing financial and technical assistance to producers whenever possible.

The fair wage/price criterion states that a large share of the value of the product must be transferred to producers in the LDC countries. The fair trade organisation (FTOs) achieves this goal by direct import and distribution of products through not-for-profit retailers (the "world shops"). Local producers revenues are up to 3-4 times higher than those earned through traditional trade channels. The FTOs also fixes a minimum price threshold which insures producers from the high volatility of market prices of their products.

The setting of a price different from the market price may be justified from a microeconomic perspective. Traditionally, trade in primary products occurs between a monopolistic/oligopolistic transnational company which buys from a large number of small producers in developing countries at a price which is affected by the relative

bargaining power of the two counterparts. The fair trade price may therefore be considered as the market price which would prevail if the two counterparts had equal bargaining power.[5] Also, fair trade creates a new market in the North where "ethical" products are sold (fair trade coffee may be considered, in consumers' preferences, as a different product from traditional coffee).

Other important features of fair trade projects are: i) transparency about production costs, wholesale prices, and nutritional characteristics; ii) anticipated financing of investment for LDC producers; iii) the destination of the surplus to projects which reinforce the provision of public goods (health, education) to local communities; iv) the long run partnership between the fair trader and producers in the South which leads to the provision of export services and project consultancy, thereby creating positive "learning through export" effects.

The following model will analyse the effects of only one of the characteristics asso-

[5]Manning (2003) argues that it is not necessary to think of the mining or mill town in the early days of the Industrial Revolution to conceive the existence of monopsony or of thin labour markets. Labour markets may be thin not just in presence of a single employer, but also when employers are few and collude or in the presence of geographical distance and labour differentiation. Card and Krueger (2000) find that minimum wage introduction has positive impact on output and employment in the fast-food market in New Jersey and Pennsylvania. Ross (2000) explains this result as the typical effect of the introduction of a minimum wage measure in a monopsonist labour market. Evidence of employers' excess market power in LDCs countries is provided by several empirical papers. Terrell and El Hamidi (2001) find that minimum wages reduce inequality and increase employment on a large sample of workers in Costa Rica. Several papers find similar results on minimum wage policies in Brazil (Camargo, 1984; Gonzaga et al., 1999; Carneiro, 2002; Lemos, 2004). However, the empirical evidence available is a poor signal for the diffusion of the phenomenon. The more a labour market is informal and characterized by exploitation, the more difficult it is that it can become the object of a systematic empirical analysis. Indirect evidence for the presence of employers' market power is given by the poor working conditions that workers face in most developing countries. According to a 2003 US state department report there were about 109,000 children working in dangerous conditions in Ivory Coast, the source of 4 percent of the world's cocoa. Starbucks financed an independent study of working conditions in the Guatemala coffee sector in 2002 and 2003 (source: COVERCO 2002, 2003), reporting extensive violation of labor law in the areas of wages, health care, and hours. However, it should be emphasized that our labour market story is just an example of a more widespread phenomenon. We could think of alternative examples in which self-employed farmers sell their crops to a single exporter. For instance, Conley and Udry 2003, in describing the functioning of the pineapple production in Ghana, report that farmers plant and grow their crops, while an exporter is usually in charge of harvesting and shipping the fruits to Europe.

ciated with fair trade: the fair wage.

3 The Model

3.1 Preferences

Individuals in the North consume a single good, x, that is internationally traded but consumed only in the North. We assume a uniformly distributed continuum of consumers indexed by the parameter $\alpha \in (0,1)$. Individual preferences are "ethic" in the sense that consumers prefer to consume a good whose production does not involve exploitation. Individuals are heterogeneous in the relative weight their preferences give to the fairness of the good. Their utility is increasing in both the quantity and the fairness of the consumed good but the relative importance of fairness and quantity varies across individuals. The utility function is given by:

$$U(q, g; \alpha) = g^{\alpha} q^{1-\alpha}; \alpha \in (0,1) \tag{1}$$

where q is the quantity of the consumption good. The function g is meant to capture social responsibility as follows:

$$g = \left\{ \begin{array}{cc} 1 & \text{if } x \text{ is produced in the North and is fair} \\ \rho \in (0,1) & \text{if } x \text{ is produced in the North and is unfair} \\ \theta \in \mathbb{R}^{+} & \text{if } x \text{ is produced in the South and is fair} \\ \rho\theta & \text{if } x \text{ is produced in the South and is unfair} \end{array} \right\} \tag{2}$$

The function g reflects two dimensions of social responsibility: a national dimension of altruism (whether agents prefer the good to be produced in the North or in the South), and a dimension related to the fairness of the production. The importance of the first dimension is captured by the parameter θ, while the relevance of the second is captured by ρ. We say preferences are *"national equality concerned"* if $\theta < 1$, i.e.

consumers prefer *ceteris paribus* the North product. Preferences are *"international equality concerned"* otherwise. In this work, we shall assume $\theta > 1$ and $\theta\rho < 1$. This implies that, while consumers ceteris paribus prefer the good to be produced in the South, a fair North product is preferred to an unfair South product. We consider as "unfair" a good produced by labour force remunerated less than the value of its marginal product. We assume that the origin and the fairness of the production can be costlessly observed by the consumers.

By inspection of consumers' preferences it is clear that low α individuals take utility mainly from quantity whereas high α individuals mainly from social responsibility.

Each individual in the North is endowed with ω units of labour (which will generate ω units of whatever product). Denoting by the N subscript the variables in the North, let w_N be the market wage for ω units of labour. Agents in the North spend all of their income for good x. Their budget constraint is:

$$q = \frac{w_N}{p} \tag{3}$$

where $p = p_N$ if the good is produced in the North and $p = p_S$ if the good is produced in the South.

3.2 Production in the North

We assume that markets in the North are fully competitive. When wage is equal to w_N all the labour force is employed. The labour that is not allocated to the production of the good is allocated to other sectors of the economy. The production technology displays constant returns to scale. Let $e_N \in (0, 1)$ denote the segment of individuals employed in the North, the zero-profit condition implies:

$$\int_0^{e_N} (p_N\omega - w_N)de = 0 \tag{4}$$

or:

$$p_N = \frac{w_N}{\omega} \tag{5}$$

3.3 Production in the South

The consumption good can be also produced in the South. South production is perfect substitute for North production (neglecting ethical concerns). We assume that the good x is not consumed in the South. Southern individuals consume an internationally traded good (say, y) whose price is fixed equal to 1. There is a uniformly distributed continuum of workers in the South. Individuals are indexed on the basis of their reservation wages. Unemployed individuals are assumed to be self-employed. Market productivity is homogeneous across workers, but productivity in self-employment is heterogeneous. Let $e_S \in (0,1)$ denote the position of a generic individual on the (0,1) segment. Agent e_S is able to produce $Y(e_S) = e_S w_N$ units of good y if self-employed (where we standardise the income, expressing it as a proportion of w_N) . Therefore, his reservation wage is $w_S(e_S) = e_S w_N$. Thus, there is full employment in the South when wage is $w_S = w_N$. We assume that the labour market is not fully competitive. There is a monopsonist that is able to set the wages. The Monopsonist's profit maximisation problem can be stated as:

$$\max_{e_S \in (0,1)} \int_0^{e_S} (p_S\omega - w_S(e_S))de \tag{6}$$

Solving the problem we obtain the following expression for the labour demand:

$$e_S = \frac{p_S \omega}{2w_n} \tag{7}$$

The North market for good x is perfectly competitive. Also, the Monopsonist is assumed to take the demand in the North market as given and is unable to influence the price. He can only choose whether to produce a fair or an unfair good. The idea is that there may be other producers from different developing countries who are ready to step in and take his place if he tries to exploit his market power in the North.

3.4 Equilibrium in Absence of Fair Trade

Given "international equality concerned preferences", i.e. $\theta > 1$, producing the good in the North is, to some extent, inefficient. The optimum would be to supply and consume only the South product. We start by describing the aggregate demand. The indirect utility function for the α individual in the North is:

$$U(p; w_N; \alpha) = \left(\frac{w_N}{p_N}\right)^{1-\alpha} \tag{8}$$

In the case he buys the North product or:

$$U(p; w_N; \alpha) = (\rho\theta)^{\alpha} \left(\frac{w_N}{p_S}\right)^{1-\alpha} \tag{9}$$

if he buys an unfair South product and:

$$U(p; w_N; \alpha) = \theta^{\alpha} \left(\frac{w_N}{p_S}\right)^{1-\alpha} \tag{10}$$

if he consumes a fair South Product. When $p_S = p_N$ all consumers prefer a fair good from the South to the North product. We show that it is not optimal for the monopsonist to supply such a good. The monopsonist has two options. On the one hand, he can produce a fair good paying labour its marginal product and taking the

whole demand in the North. On the other hand, he can produce an unfair good, set a price $p_S < p_N$ and get only the less ethic fraction of the demand. In this case, the price needs to be lower than p_N because the North product is strictly preferred to an unfair South product.

Proposition 1. *It is optimal, for the Monopsonist, to supply an unfair good, even in the presence of ethical consumers.*

Proof. Suppose the Monopsonist supplies a fair good. In this case the wage is given by:

$$w_S = p_S \omega \tag{11}$$

Substituting w_S in the Monopsonist's profit function gives zero profits. Suppose instead that the he decides to exploit his market power. Denote by α_0 the individual indifferent between consuming an unfair good at price $p_S < p_N$ and the North good at price p_N, i.e.:

$$\alpha_0 \quad s.t. \ (\rho\theta)^{\alpha_0} \left(\frac{w_N}{p_S}\right)^{1-\alpha_0} = \left(\frac{w_N}{p_N}\right)^{1-\alpha_0} \tag{12}$$

The market clearing condition is:

$$\int_0^{e_S} \omega de = \int_0^{\alpha_0} \frac{w_N}{p_S} d\alpha \tag{13}$$

or:

$$e_S \omega = \alpha_0 \frac{w_N}{p_S} \tag{14}$$

where the left hand is the monopsonist's supply and the right hand the demand he faces. Substituting the optimal level of e_S from (7) and solving for the price yields:

$$p_S = (2\alpha_0)^{1/2} \frac{w_N}{\omega} \tag{15}$$

Note that $p_S < p_N$ requires $\alpha_0 < \frac{1}{2}$. We shall later argue that this condition is indeed satisfied. Substituting e_S and p_S into the profit function:

$$\pi = \frac{(p_S\omega)^2}{2w_N} - \left(\frac{p_S\omega}{2w_N}\right)^2 w_N = \frac{\alpha_0 w_N}{2} > 0 \tag{16}$$

□

Hence the Monopsonist can only make positive profits by supplying an unfair good. The equilibrium is therefore characterised by the presence of two prices for good x: α_0 individuals consume the Monopsonist's product paying a price $p_S < p_N$ and $1-\alpha_0$ consume the North product for a price p_N. Given $\rho\theta < 1$, the demand faced by the Monopsonist is less than the demand faced by the North producers. In fact, $\alpha_0 < \frac{1}{2}$ holds in equilibrium. By manipulation of 12 (the condition for the indifferent individual, α_0) we obtain:

$$\rho\theta = \left(\frac{p_S}{p_N}\right)^{\frac{1-\alpha_0}{\alpha_0}} \tag{17}$$

Substituting p_S and p_N and taking logs yields:

$$2\alpha_0 \ln(\rho\theta) = (1-\alpha_0)\ln(2\alpha_0) \tag{18}$$

Since the left hand side is clearly less than zero, the right hand side needs to be negative as well. This implies $2\alpha_0 < 1$.

3.5 Welfare in the Absence of Fair Trade

We have seen that the North production survives because of the Monopsonist's market power, since the North product is perceived as fairer by the the ethical consumers. The welfare in the North, denoted by J_N, is given by:

$$J_N = \int_0^{\alpha_0} (\rho\theta)^{\alpha} \left(\frac{w_N}{p_S}\right)^{1-\alpha} d\alpha + \int_{\alpha_0}^{1} \left(\frac{w_N}{p_N}\right)^{1-\alpha} d\alpha \tag{19}$$

Note that welfare in the North is not affected by changes in employment due to the production of good x in the North. This happens because the labour demand is assumed to be perfectly elastic in that country and unemployed individuals are able to obtain a new job for the same wage w_N in other sectors of the economy. Moreover,

given the zero profit condition, North firms are indifferent between producing and not producing.

As a result of the Monopsonist's market power, the South does not reach full employment. This becomes clear by substituting the equilibrium price p_S into the optimal amount of labour e_S:

$$e_S = \left(\frac{\alpha_0}{2}\right)^{\frac{1}{2}} < 1 \tag{20}$$

Therefore, the individuals $e \in (0, e_S)$ obtain the Monopsonist's wage $w_S = e_S w_N$ whereas the individuals $e \in (e_S, 1)$ obtain their reservation wage ew_N. We can then compute welfare in the South:

$$J_S = \int_0^{e_S} w_N e_S de + \int_{e_S}^1 w_N e de = \frac{w_N}{2}(1 + e_S^2) \tag{21}$$

Not surprisingly, this an increasing convex function of e_S.

4 Fair Trade

4.1 The Fair Trader

Suppose now that a new producer enters the market for good x. Assume also that she is allowed to compete with the Monopsonist on the labour market in the South but, at the same time, it is constrained to produce a fair product and cannot make profits nor losses. In this model, that implies that she must pay a wage $w_S^F = p_S^F \omega$.

Since we did not model the determinants of the Monopsonist's market power, our model cannot be used to study why the Fair Trader can successfully contend the market to the Monopsonist whereas other profit maximising firms could not. A possible way to justify such an assumption is to consider the Fair Trader as a hybrid institution that shares common characteristics with both charities and traditional firms. Deterring the

entry of such an institution might be harder than deterring the entry of profit seeking firms. In particular, if the Fair Trader is committed to make no losses on its sales, but, for philanthropic reasons, is willing to bear the losses generated by the entry cost, his entry cannot be prevented. However, in what follows we shall just assume that, for some reason, the Fair Trader is able to enter the market and we shall analyse the interactions which occur *after* the entry.

Since the Fair Trader fixes the wage without taking into account the Monopsonist's behavior and since its product is differentiated from the Monopsonist's product through fairness, it is able to set a higher wage than the Monopsonist. The Fair Trader is able to produce whatever quantity between 0 and ω whenever the price is $p_S^F = \frac{w_S^F}{\omega}$. Hence, because of the constant returns to scale setup, the Fair Trader controls both variables: quantity and wage. We assume, therefore, that whenever w_S^F is greater than the wage paid by the monopsonist and the quantity of labour demanded by the Fair Trader is greater than the supply at that wage, the Fair Trader is able to efficiently ration the labour supply. By efficient rationing we mean that the Fair Trader is able to discriminate on the basis of the outside option, thereby recruiting the workers with the *lowest* reservation wage. The assumption of efficient rationing is critical for our results. On the other hand, it appears also reasonable if we consider that a Fair Trader should be affected by altruistic concerns about the workers with bad outside options. It must be remarked that this does not imply any price discrimination: both the Fair Trader and the Monopsonist are constrained to pay the same wage to each of their workers.

4.2 Equilibrium with Fair Trade

North consumers have now three alternative options. They can consume the North product, paying p_N. They can consume the Monopsonist's product, paying p_S and,

finally, they can consume a fair South product, paying p_S^F. Because of the "international equality concerned" preferences, the latter is strictly preferred to the formers when prices are the same. This implies that, for $p_S^F = p_N = p_S$, both the North and the unfair South production would be driven out from the market, unless the Fair Trader faces some constraint on its size. Under these preferences, there exists an equilibrium where only the Fair Trader and the Monopsonist remain in the market, *both supplying a fair product*. Given the heterogeneity of preferences, one would expect the Monopsonist still to be able to sell an unfair product to the less ethic segment of consumers (the low α individuals). We will show how this strategy becomes no longer profitable in the presence of a Fair Trader.

Since the new producer is able to set the wage it prefers, it can always set a wage $w_S^F = w_N$. In this case the Fair Trader will take the whole former demand for the North product and a fraction of the former demand for the unfair South product. On the other hand, for a wage level $w_S^F = w_N$ there is excess labour supply unless either the Fair Trader hires all the workers in the South ($e_S^F = 1$), or the Monopsonist sets the same wage $w_S = w_N$.

Proposition 2. *When the Fair Trader hires workers paying them $w_S^F = w_N$, then, it is able to sell at price $p_S^F = p_N$ in the North and the equilibrium is characterised by both absence of North production and $e_S^F \leq 1$.*

Proof. From the zero-profit condition, setting a wage $w_S^F = w_N$ implies that the Fair Trader can sell its good when $p_S^F = \frac{w_N}{\omega} = p_N$. Since both the North and the Fair Trader product are fair, none in the North wants to consume the North product anymore. Therefore, the North production is ruled out. Denote by $\hat{\alpha_0}$ the new fraction of individuals preferring an unfair product to a fair product. Market clearing involves:

$$e_S^F = (1 - \hat{\alpha}_0)\frac{w_N}{\omega p_N} = 1 - \hat{\alpha}_0 < 1 \tag{22}$$

unless $\hat{\alpha}_0 = 0$. □

Whenever the Fair Trader sets a wage equal to the North wage, we can have two different situations. If the Fair Trader faces size-constraints, the Monopsonist sets a

wage lower than w_N and the Fair Trader faces excess labour supply. The situation in which the Fair Trader faces size constraints is realistic if we acknowledge that the Fair Trader does not have the maximisation of profits as objective. Also, remaining small might be a way to better signal its altruistic aims to the ethical consumers.

If the Fair Trader is free to choose its size, then we have an equilibrium in which the labour market clears and where both the South producers set the wage w_N, produce a fair good, and sell it at the same price p_N. However, even if the fair trader faces size-constraints, its presence may still have positive side-effects on the wage offered by the monopsonist, provided that the Fair Trader is able to efficiently ration the labour supply. The intuition is that, by efficient rationing, the Fair Trader is able to hire the low outside option workers whereas the labour supply faced by the Monopsonist is truncated in correspondence of those workers. The Monopsonist is then bound to recruit individuals with high outside option. This spurs the Monopsonist to raise the wage in order to hire some workers and produce a positive quantity. This effect is not necessarily offset by the fall in the demand faced by the Monopsonist due to the competition of a fair South product. Denoting by $\hat{}$ the new equilibrium values of the variables after the Fair Trader appears in the economy:

Proposition 3. *If the Fair Trader is free to choose its size, then the Monopsonist would set a wage $\hat{w}_S = w_N$, produce a fair good, and hire all the residual labour force, i.e. $\hat{e}_S = 1$. If the Fair Trader is constrained in its size but is able to ration efficiently, then there always exists a critical size e_S^F that forces the Monopsonist to increase its wage.*

Proof. We want to show how the Monopsonist's optimum is the corner solution $\hat{e}_S = 1$. The maximisation problem can be stated as:

$$\max_{\hat{e}_S \in (e_S^F, 1)} \int_{e_S^F}^{\hat{e}_S} (p_S \omega - w_S(\hat{e}_S)) de \tag{23}$$

the Kuhn-Tucker conditions are:

$$\lambda(\hat{e}_S - 1) \leq 0; \lambda \geq 0 \tag{24}$$

and:

$$\mu(e_S^F - \hat{e}_S) \leq 0; \mu \geq 0 \tag{25}$$

with at least one strict equality in both cases. The first order condition yields:

$$\hat{e}_S - e_S^F = \frac{\hat{p}_S\omega - w_N e_F - \lambda + \mu}{2w_N} \tag{26}$$

implying the existence of an interior solution whenever $\hat{p}_S$ satisfies:

$$\frac{w_N}{\omega}(1 - \hat{\alpha}_0) < \hat{p}_s < \frac{w_N}{\omega}(1 + \hat{\alpha}_0) = p_N(1 + \hat{\alpha}_0) \tag{27}$$

where we used $e_F^S = 1 - \hat{\alpha_0}$. On the other hand, $\hat{\alpha}_0(\hat{p}_S) \to 0^+$ whenever $\hat{p}_S \to p_N$, therefore, the true upper bound for $\hat{p}_S$ in order to avoid a corner solution is just p_N. In order to hire some workers, the monopsonist should set a wage at least equal to $w_N e_F^S/\omega$. Clearly, for $e_F^S = 1$, the monopsonist is driven out of the market unless he also sets a wage w_N/ω. In this case, both producers supply a fair good at the same price and, therefore, consumers are indifferent between the two goods. Thus, $\hat{\alpha_0}$ is not determined. As for the second part of the proposition, first note that, trivially, for $e_S^F = e_S$, the Monopsonist has to raise its wage in order to hire some worker (e_S is the Monopsonist's labour demand before the entry of the Fair Trader). However, it is not necessary that the Fair Trader hires all the Monopsonist's former labour force. We can write the ex-ante wage of the Monopsonist as $w_N e_s = w_N p_s/2p_N$. The ex-post wage is

$$w_N \hat{e}_s = \frac{w_N}{2}\left[e_S^F + \frac{\hat{p}_S}{p_N}\right] \tag{28}$$

The ex-post wage is higher when:

$$e_S^F > [p_S - \hat{p}_S]/p_N \tag{29}$$

To show that this condition is weaker, note that $p_S = (2\alpha_0)^{1/2} w_N/\omega = 2e_S w_N/\omega$ from (15). Thus, condition (29) becomes:

$$e_S^F > 2e_S - \frac{\hat{p}_S}{p_N} \tag{30}$$

summing and subtracting $\hat{e}_s$,

$$e_S^F - e_S > e_S - \hat{e}_S - \frac{\hat{p}_S - e_S w_N/S}{p_N} \tag{31}$$

$\hat{p}_S - e_S w_N/\omega$ represents the Monopsonist's per unit profit. Thus, it is always positive. But then, we can have $\hat{e}_S > e_S$ even when $e_S^F < e_S$.

□

If the Fair Trader is free to choose its size, the fraction of consumers who buy the Monopsonist's good is not determined. Thus, the Fair Trader can have any size in equilibrium. In particular, it may still be very small. It is enough that it can *potentially* hire all the labour supply (or it can credibly threat to do it) to force the Monopsonist to set a fair wage. Note that we did not make any assumptions about whether the Fair Trader and the Monopsonist engage in Cournot or in Bertrand competition. While the same result would apply with the entry of any profit maximising firm engaging in price competition, it would not carry on in the case of quantity competition.

The second part of the result suggests that the Fair Trader needs to reach a critical size in order to have a positive side-effect on the Monopsonist. Interestingly enough, if the Fair Trader is too small, it may generate a negative externality for the workers hired by the Monopsonist and for the unemployed who were previously hired by the Monopsonist.

4.3 Welfare with Fair Trade

What is the effect on welfare of the fair traders entry? Under reasonable assumptions, the creation of a market for fair products may improve welfare of both North and South consumers. Consider first the case in which the Fair Trader is size-constrained. The introduction of the fair South product causes a fraction of consumers to switch from the Monopsonist's product to the new product, if consumers are international equality concerned or neutral between international or national concerns ($\theta = 1$). This shift generates a feedback effect on the price of the monopsonist's product which drops (see 15). However, if the Fair Trader is size-constrained, it may happen that it is not able to satisfy the whole demand in the North. In this case the North production might survive. This would imply the presence of a share of consumers whose welfare is unchanged. Thus, to make the point in a simpler way, let us assume that the size

of the Fair Trader permits to satisfy all the demand for the fair product. Welfare in the North is now:

$$J_{N(F1)} = \int_0^{\hat{\alpha}_0} (\rho\theta)^\alpha \left(\frac{w_N}{\hat{p}_S}\right)^{1-\alpha} d\alpha + \int_{\hat{\alpha}_0}^1 (\theta)^\alpha \left(\frac{w_N}{p_N}\right)^{1-\alpha} d\alpha \tag{32}$$

All consumers who switched from the North production to the Fair Trader are better off, as long as $\theta > 1$. Those who stick to the Monopsonist's product have also improved their welfare since the price has dropped. Those moving from the monopsonist to the fair trader are better off by a revealed preference argument. They would be better off if consuming the old product (its price is lower) which is still a feasible option. Thus, they must remain better off if they decide to move to the new product. Finally, we have seen that there exists a critical size of the Fair Trader for which all wages increase in the South. Hence, if the Fair Trader is able to reach that size, welfare in the South increases. Therefore, we have a welfare improvement for both consumers in the North and workers in the South.

If the Fair Trader is not able to reach the critical size, the impact on welfare in the South is heterogeneous since some workers (those recruited by the Fair Trader) are better off whereas some others (those recruited by the Monopsonist and the part of the unemployed who were employed ex-ante) are worse off.

We have seen that if the Fair Trader is free to choose its size, the whole production of the North is replaced by the Fair Trade product. Also, in this case all workers in the South experience a welfare improvement. Welfare in the North is given by:

$$J_{N(F2)} = \int_0^1 \theta^\alpha \left(\frac{w_N}{p_N}\right)^{1-\alpha} d\alpha \tag{33}$$

which can be rewritten as:

$$J_{N(F2)} = \int_0^{\alpha_0} \theta^\alpha \left(\frac{w_N}{p_N}\right)^{1-\alpha} d\alpha + \int_{\alpha_0}^1 \theta^\alpha \left(\frac{w_N}{p_N}\right)^{1-\alpha} d\alpha \tag{34}$$

Comparing expression (34) with expression (19) yields:

$$J_{N(F2)} - J_N = \int_0^{\alpha_0} \left[\theta^\alpha \left(\frac{w_N}{p_N} \right)^{1-\alpha} - (\rho\theta)^\alpha \left(\frac{w_N}{\hat{p}_S} \right)^{1-\alpha} \right] d\alpha + \tag{35}$$

$$+ \int_{\alpha_0}^{1} [\theta^\alpha - 1] \left(\frac{w_N}{p_N} \right)^{1-\alpha} d\alpha \tag{36}$$

As long as $\theta > 1$, the second term is always positive. It represents the welfare improvement for the most ethical consumers. However, the first term does not need to be positive. The idea is that the removal of unfairness is accompanied by a price which is higher than the ex-ante price charged by the monopsonist. Thus, individuals with low α may see their welfare reduced since they are unable to consume the same quantity as before.

5 Additional Results and extensions of the model

What is the net effect of the existence of ethical preferences in absence of fair trade? In order to answer this question, we consider the effects of a reduction of ρ, i.e. an increase in the disutility of unfairness in the preferences of socially responsible consumers.

Proposition 4. *An increase in social responsibility is harmful for the South (in terms of wages and employment) without socially responsible production.*

Proof. Consider the logarithmic transformation of North consumers' utility. The threshold α_0 solves:

$$\alpha_0 \ln(\rho\theta) = (1 - \alpha_0) \ln p_S - (1 - \alpha_0) \ln p_N \tag{37}$$

or, given equation (15),

$$\ln \rho = \frac{1 - \alpha_0}{2\alpha_0} \ln(2\alpha_0) - \ln \theta \tag{38}$$

For $\alpha_0 \leq 0.5$, the left hand side is increasing in α_0. Therefore, a reduction of ρ should reduce α_0. On the other hand, equations (15) and (7) imply:

$$e_S = \left(\frac{\alpha_0}{2} \right)^{1/2} \tag{39}$$

thus, a drop in ρ reduces both wages and employment in the South. Since welfare in the South is an increasing function of e_S, the result follows. □

The intuition is that if consumers become more ethically concerned, the Monopsonist loses a part of his market share to the North production. The reduced demand for the South product generates a drop in wages and employment in the South. It is also worth noting that the reduction in w_S increases the inequality between North and South.

The result makes explicit the typical dilemma that ethical consumers face whenever choosing whether to "boycott" a producer who uses his bargaining power to exploit the labour force. In fact, the boycott could actually end up with worsening the situation of the workers. In the absence of a Fair Trader, the usual argument that the costs of boycotts are paid by the workers is powerful indeed. Our results hold because the monopsonist, even in presence of ethically concerned consumers, always finds it optimal to produce an unfair good.

5.1 Fair trade and the role of tariff barriers

EU and US agricultural policies have created tariff and non tariff barriers to agricultural goods which are produced outside Europe and the US. The reduction or removal of these barriers is currently under discussion in WTO rounds. We analyse the effects of these barriers on wage and employment in our model with a Monopsonistic producer. The framework we use permits to study the effects of all those policy measures which alter the prices of the traditional product and the fair trade product. Examples of these policies are i) the proposal about tax allowances for fair trade products in several EU countries; ii) the reduction or removal of tariff barriers on all products imported from the South. We start by analysing the simple effect of the existence of tariff barriers in our model. The presence of a tariff, t, for all products imported from

the South changes the monopsonists first order condition into:

$$e_S(t) = \frac{p_S(t)(1-t)\omega}{2w_N} \tag{40}$$

The tariff therefore reduces the monopsonist's demand for labour. Market clearing implies:

$$e_S(t)\omega = \alpha_0(t)\frac{w_N}{p_S(t)} \tag{41}$$

The Monopsonist's equilibrium labour demand is:

$$e_S(t) = \left(\frac{\alpha_0(t)(1-t)}{2}\right)^{1/2} \tag{42}$$

and the price is:

$$p_S(t) = \left(\frac{2\alpha_0(t)}{1-t}\right)^{1/2}\frac{w_N}{\omega} \tag{43}$$

The share of consumers who buy the Monopsonist's product is given by the relationship

$$\alpha_0(t)\ln(\rho\theta) = (1-\alpha_0(t))[\ln p_S(t) - \ln p_N] \tag{44}$$

We claim that $(1-t)\alpha_0 < \alpha_0(t) < \alpha_0$ holds. Suppose it did not and $\alpha_0(t) \geq \alpha_0$ held instead. This would imply $p_S(t) > p_S$. On the other hand, solving (44) for $\alpha_0(t)$ shows that $\alpha_0(t)$ is decreasing in $p_S(t)$. Assume now $\alpha_0(t) \leq \alpha_0(1-t)$. Then $p_S(t) \leq p_S$ holds, which implies $\alpha_0(t) \geq \alpha_0 > \alpha_0(1-t)$.

As long as $(1-t)\alpha_0 < \alpha_0(t) < \alpha_0$, the cost of the tariff is paid by consumers in the North (higher price), by workers in the South (since $e_S(t)$ is increasing in $\alpha_0(t)$) and by the Monopsonist (since profits are increasing in $\alpha_0(t)$ as well). An elimination of the tariff would therefore raise the welfare of all the players (including the Monopsonist).

Consider now the case of the Fair Trader. As long as he keeps selling at p_N, zero profits imply $w_S^F = p_N(1-t)\omega = w_N(1-t)$. Thus, the *entire* cost of the tariff is paid by the workers in the South. If $\theta > 1$, the Fair Trader may be able to transfer

part of the cost to the consumers in the North. However, it is clear in this case that the exporter never bears the cost of the tariff. Therefore, while tariffs are welfare reducing in general, their negative redistributive effects are stronger in the case of the Fair Trader. Thus, the elimination of the tariff on fair trade products can be justified on solider grounds than those (solid enough) usually invoked by the advocates of free trade.

5.2 Considerations on the relationship between fair trade and child labour

Fair trade may have consequences on welfare which go beyond what described so far. An interesting example is child labour. Any policy that is aimed at fighting child labour without raising household income is bound to be ineffective or worse. In that respect, fair trade may provide a better answer to the problem.

According to the luxury axiom, parents send children to work when household wage falls below a given subsistence level w_{min}. Assume that $w_S < w_{min} < w_N$.[6] The introduction of fair trade reduces child labour in the South through the increase in the household income. Also, according to proposition 3, efficient rationing has a direct and, if the Fair Trader is large enough, also an indirect positive effects on child labour.

By converse, an explicit ban of child labour products does not raise household income per se. Also, proposition 4 suggests that a co-ordinated boycott of commodities produced through child labour may be harmful for the workers in the South, in the absence of a socially responsible producer.

The crucial difference between these approaches and fair trade is that the Fair Trader, by offering a better price for child-labour-free products, makes the renounce to child labour incentive compatible for the household.

[6]Theoretical support for the luxury axiom may be found, among others, in Basu and Van (1998), Basu (1999) and Baland and Robinson (1998).

6 Conclusions

Globalisation has created new problems but also increased the ability of consumers to campaign and to coordinate political (voting) and economic (consuming and saving) power. In a globalised economy the ethical concern of a minority of individuals may significantly affect the behaviour of firms and institutions. Fair trade is an interesting attempt to rebalance North-South trade and armonise four different approaches to social justice: i) the role of contractualism and governance (Rawls, 1972) whose reform is urged and implicitly supported by the development of the fair trade; ii) the role of self-organisation of citizens in an open society with a "minimal state" (Nozick, 1981); iii) the importance of local communities (McIntyre, 1993); and iv) the importance and the cultivation of social virtues (Pieper, 1975) without which institutions and rules are empty boxes. In a simple model where consumers care about the fairness of their consumption, we have shown that the entry of a Fair Trader may increase the welfare of both consumers in the North and workers in the South. However, our results also point two potential side-effects. First, in the absence of a Fair Trader, ethically concerned preferences may end up with worsening the situation of workers in the South. Also, the better wage conditions offered by the Fair Trader generate an externality for those workers who are employed by other producers. The externality is shown to be positive if the Fair Trader is able to reach a critical size, negative otherwise. Therefore, ethically concerned preferences may be counterproductive in the absence of socially responsible productions, or when these productions remain small in size.

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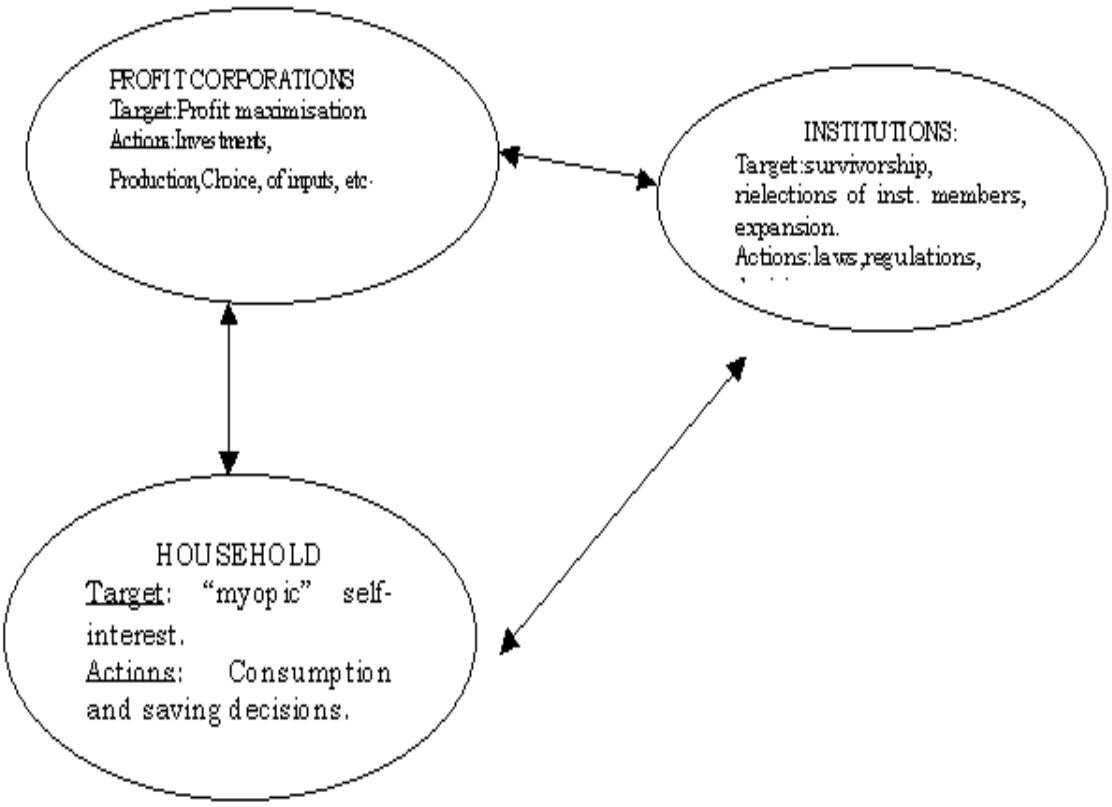


Figure 1: The three pillars of the Economic System

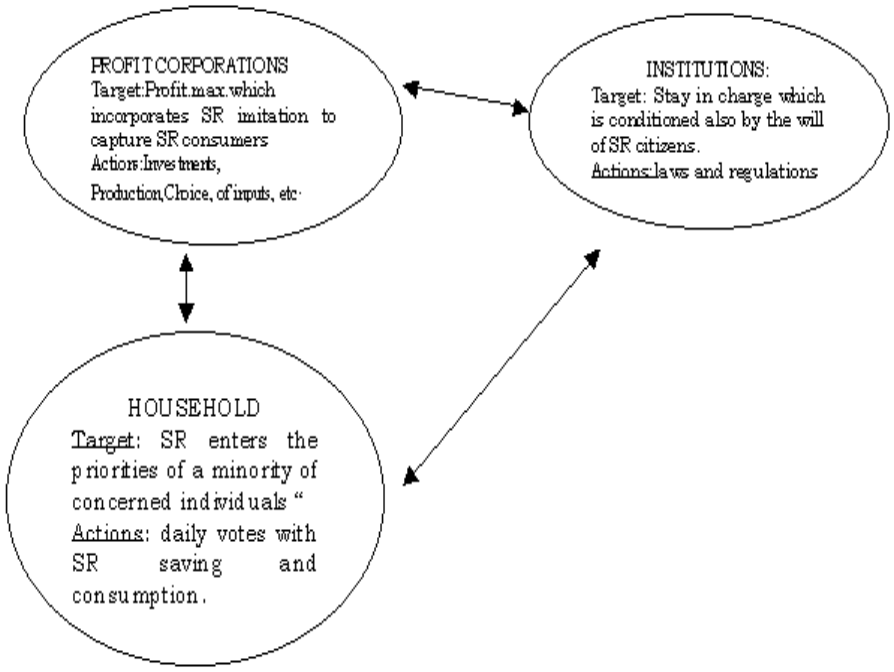


Figure 2: The virtuous change of the three-pillars system under bottom-up SR actions of the civil society