Fair trade: a "third generation welfare" mechanism to make globalisation sustainable[1]

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Abstract

Globalisation of product and labour markets has dramatically evidenced the market failure generated by the monopsonistic /oligopsonistic power of buyers of labour (low value added products) from unskilled workers (subcontractors). The absence of a global benevolent planner and unequal representation mechanisms in international institutions prevent a reduction of this imbalance of bargaining power between employers and workers with traditional welfare approaches (such as minimum wage measures). In our model we show that, under the existence of an even minimal share of altruistic consumers in the North, the intervention of a global benevolent planner and the reform of international trade rules may be partially replaced by a (North-South consumers) Pareto improving bottom-up welfare approach directly promoted by consumers of the final product.

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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 which we call globalisation[2] has dramatically reduced transportation costs and deeply modified geographical patterns of trade around the world.[3] By easing the time-space constraints (at least in virtual communications) this technological revolution has increased interdependence among individuals. The increased interdependence has enhanced 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 partly associated with globalisation of labour and product markets is increasing wage skill differentials (Deadorff, 2000; Feenstra-Hanson, 2001).[4] While "superstars" (and high skilled workers) take advantage from the extension of demand and are not

[2] Among the driving forces of globalisation are the sudden acceleration of worldwide economic integration under the principles of market economy, on the real side, and the increasing freedom and speed of capital movements on the financial side. These phenomena have been stimulated and accompanied by a worldwide technological revolution originated by the progressive convergence of software and telecommunications and fostered by digital technology advancement.

[3] Feenstra (1999) documents the phenomenon of disintegration in production by showing a significant rise in the ratio of imported to domestic intermediate inputs and in the ratio of merchandise trade to merchandise value added in OECD countries in the last decades. Other authors refer to the phenomenon as de-localisation (Leamer, 1988), vertical specialisation (Hummels et al. 2001) and slicing the value chain (Krugman, 1995).

[4] 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 outsourcing within industries of the least skill-intensive processes to developing countries (Rodrik, 1999).

harmed by the increased competition, untalented workers share no benefit from the enlargement of product markets while paying costs for the increased competition with unskilled workers from different countries.[5] 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" as subsistence wage levels and tariff and non tariff barriers[6] imposed by developed countries prevent them to accumulate resources which could be invested in human capital to increase their productivity.[7]

Traditional welfare approaches are unable to solve these problems in trade and international labour markets due to conflicts of interests among different countries and underepresentation of the interests of the poorest countries at the international level which prevents the insurgence of a Rawlsian global benevolent planner. The poverty trap in which low skills lead to reduced bargaining power and monopsonistic labour market conditions is well known to economists. 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 conceived to be administered by domestic governments and therefore, tend to care only for

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

[6] 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.

[7] 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).

domestic unskilled workers, while “it make sense to include the well-being of agents in other countries within any welfare criterion” (Feenstra, 1998). Therefore it is highly likely that neither overindebted local governments, nor domestically oriented governments of industrialised countries will take care of the welfare of unskilled workers in developing countries.

In this paper we argue that a partial solution to this problem may be found by devising “bottom-up” welfare mechanisms in which “socially responsible consumers” in the North do the job.

To understand what we mean for “bottom-up” welfare consider economic development as depending on the interaction among three powers (firms, institutions and citizens) (Figg. 1a). (Becchetti-Fucito, 2000) In this world profit maximising firms take their investment, production and hiring decisions without considering the negative externalities that may potentially be generated by their productive activities. Individuals take their consumption and saving decisions on the basis of a narrow definition of their preferences which does not include social responsibility among their arguments. People in the institutions are far different from the benevolent planners and maximise their stay in power. 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 in those institutions. The interaction among these three forces (firms, institutions, citizens) generates insufficient momentum for the solution of the existing market failures.

Let us now compare this with a more virtuous picture in which bottom-up pressures are at work (Fig. 1.b). The third pillar of the system now includes a small share of voters whose voting, consuming and saving decisions are affected by social and environmental concerns. Even though they are a minority, they significantly influence the behaviour of profit maximising firms whose economic and financial success depend on small changes in market shares, revenues and profits. Institutions are nonetheless affected as politicians try to represent issues of these groups once in power not to loose their political support.

To sum up, the one described above is a "bottom-up" welfare mechanism which may be considered as a set including all those measures (such as ethical finance, ethical banking or fair trade) which endogenise the active role played by socially responsible consumers/savers that may crucially affect the behaviour of firms and institutions with their choices (see Figures 1-2).[8]

Within the above described framework this paper aims to analyse the theoretical features of an important "bottom-up" approach called "fair trade". The paper is divided into five 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 includes a bundle of socially responsible answers to existing market

[8] Bottom-up welfare may be viewed as a "third generation welfare" mechanism (coming after and complementing the benevolent planner, and the reform of the rules approaches) which is much less unrealistic than the first two. Recent history demonstrated, and many economists agree, that the benevolent planner is a myth (Easterly, 2002), while the existence of significant market shares for socially responsible consumption and saving reveals that individuals with socially responsible preferences do exist in the reality.

failures with which civil society supplements the limits of existing trade rules. In the third section we will sketch a simple model to investigate how only one feature of fair trade, the determination of prices, may contribute to solve some specific market failures. In this section we show that the presence of fairness concerns in the absence of a fair trade market may reduce welfare in the North and in the South, while the creation of fair trade mechanisms may generate a Pareto improvement for both consumers in the North and in the South. The introduction of fair trade is also shown to have important indirect effects on "traditional" producers whose reaction to changes in labour supply and market demand generated by fair traders may have the effect of increasing their social responsibility.

2. A definition of fair trade

"Fair trade" is a particular trade channel in which food and textile products which have been produced in developing countries respecting a series of social and environmental criteria are sold in the industrialised countries.

These criteria, defined by the Fair Trade Federation (FTF), 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; vi) providing healthy and safe working conditions within the local context; vii) providing financial and technical assistance to producers whenever possible.

The fair wage/price criterion states that in the price paid to producers in the LDC countries a much higher share of the value of the product must be transferred to them than what is usually the case. The fair trade organisation (FTOs) achieves this goal by reducing the intermediation chain through direct import and distribution of products through non profit retailers (the "world shops"). In this way local producers revenues are up to 3-4 times higher than those earned through traditional trade channels. The FTOs also fix a minimum price threshold which insures producers from the high volatility of market prices of their products.

The bilateral definition of a price different from the market one has sound microeconomic grounds. We must consider in fact that, traditionally, trade in primary products occurs between a monopolistic/oligopolistic transational company which buys from a large number of atomistic LDC producers at a price which is affected by the relative bargaining power of the two counterparts. The fair trade price may therefore be ideally considered as the market price which would prevail if the two counterparts would have equal bargaining power and may therefore be viewed as a non governmental minimum wage measure taken by private citizens in developed countries.[9]

[9]Minimum wage under perfect competition may have perverse welfare effects reducing labour demand and increasing unemployment (Basu, 2000). This is obviously not the case when the wage rises from its equilibrium level to the perfect competition level in a

Using prices as a policy instrument to transfer resources to the South cannot be considered a market distortion also because the fair trade opens in the North a new market where "contingent ethical" products are sold (fair trade coffee is a different product from traditional coffee exactly as an umbrella when it rains is not the same product as an umbrella when it does not rain). In this sense we may argue that fair trade is a step forward market completeness when consumers' preferences include social responsibility.

Another important point in fair trade principles is that products sold must be environmentally and socially compatible. In this respect we must not confuse fair trade with "ethical labelling" which often hides forms of strategic non tariff barriers from the North to the South. By realistically promoting workers' welfare, by transferring resources to households through the fair price mechanism and by not banning child labour, fair trade tries to remove causes of children underinvestment in human capital without creating social non tariff trade barriers.

A third feature of fair trade products is the principle of transparency. Labels of FT products must contain as much information as possible on production costs, wholesale prices and nutritional characteristics. Transparency is fundamental to maintain reputation which is the crucial competitive factor for "ethical" products.

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monopsonistic labour market. Recent empirical papers confirm that, when workers have low skills and are easily replaceable, labor markets tend to be monopsonistic or oligopsonistic. Card and Krueger (2000) find that minimum wage introduction has positive impact on output and employment in the fast-food market in New Yersey and Pennsylvania. Sheperd and Ross (2000) explain this result as the typical effect of the introduction of a minimum wage measure in a monopsonist labour market.

Other important features of fair trade projects are: i) anticipated financing of investment for LDC producers; ii) the destination of the surplus provided to local producers through increased revenues to projects which reinforce the provision of public goods (health, education) to local communities;[10] iii) the long run partnership between the fair trader and producers in the South which leads to the construction of "international social capital" and to the provision of export services and project consultancy, thereby creating positive "learning through export" effects.

Anticipated financing of production may be seen as a solution to the typical problem of credit rationing which hassles many small non collateralised producers. On the other hand, the preferential inclusion in the fair trade list of products for which this surplus is devoted to the provision of public goods to local communities is an interesting example of private-private transfers from the North to the South which offset the incapacity of highly indebted governments of providing public goods to their population. The recent history of foreign aid suggests that it is more efficient to channel resources through civil society organisations when strategic goals of the donors are relevant and corruption of domestic governments is high (Easterly, 2002).

From what considered above the fair trade emerges as a potential solution to some important "market failures".[11] The model which follows will try to

[10] Fair trade products are beginning to achieve significant market shares. They captured around 2% of the ground coffee market in the EU and about 15% of the banana market in Switzerland in the year 2000.

[11] In 1999 the European Commission issued a document on Fair Trade (29.11.1999 COM(1999) 619. In its introduction it is stated that *"Fair trade" is an example of*

explain how this may occur by analysing the effects of only one of its features: the price.

3.1 The model

3.1.1.Preferences

Individuals in the North consume a single good (which we'll call x) that is internationally traded but consumed only in the North. We assume an 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 (see below). In spite of it, individuals are heterogeneous in the relative weight of their preferences given to the fairness of the good. More specifically, 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. Therefore we assume:

$$U(q,g,h,\alpha)=(gh)^{\alpha}q^{1-\alpha};\ \alpha \in (0,1) \qquad (3.1.1)$$

Where q is the quantity of the consumption good, $g \in \{1,\rho \in (0,1)\}$ is a qualitative variable taking value 1 if the good is considered "fair", $\rho<1$ otherwise. In this section we consider "unfair" a good produced by labor

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development occurring through trading relationships and improved commercial opportunities to bridge the gap between developed and developing countries and to facilitate the better integration of developing countries in the world economy. "Fair trade" initiatives give consumers the opportunity to contribute towards sustainable economic and social development in developing countries through their purchasing preferences. The Commission provided financial support for research and education on *fair trade* to NGOs within the EU (3,7 millions of Euros in 1998). More recently, in July 2001, the Commission issued a Green Book COM(2001) 366 to promote firm social responsibility in the European framework. Large part of the Green Book deals with fair trade issues.

force remunerated less than the value of its marginal product. $h \in \{1, \theta \in R^{+}\}$ is again a qualitative variable taking value 1 if the good is produced in the North and θ if the good is produced in the South. The h variable takes into account the national component of altruism in the preferences. Therefore, we say preferences are "*national equality concerned*" if $\theta<1$, i.e. consumers prefer *coeteris paribus* the North product, preferences are "*international equality concerned*" otherwise.

By inspection of the preferences it is clear that low α individuals take their utility mainly from the quantity consumed whereas high α individuals mainly from product fairness.

Each individual in the North is endowed with S units of labor (which will generate S units of whatever product). Denote by the N subscript the variables in the North and let w_N be the market wage for S units of labor. The budget constraint is:

$$q = \frac{w_N}{p} \qquad (3.1.2)$$

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

3.1.2 Production in the North

We assume that markets in the North are fully competitive. When wage is equal to w_N all the labor force is employed. The labor that is not allocated in the production of the good is allocated in other sectors of the economy. We assume constant returns to scale in the technology. Let $e_N \in (0,1)$

denote the segment of individuals employed in the North. The zero-profit condition implies:

$$\int_0^{e_N} (p_N S - w_N) de = 0 \qquad (3.1.3)$$

or:

$$p_N = \frac{w_N}{S} \qquad (3.1.4)$$

3.1.3 Production in the South

The consumption good can also be produced in the South. South production is perfect substitute for North production (neglecting ethical concerns). Despite it, we assume that the good is not consumed there. Southern individuals consume an internationally traded good (say, y) whose price is set equal to 1. We assume an uniformly distributed continuum of workers in the South. These workers are indexed on the basis of their reservation wages. Unemployed individuals are assumed to be self-employed.

Despite market productivity is assumed to be homogeneous across agents, the self-employment productivity is heterogeneous. Let $e_S \in (0,1)$ denote the position of a generic individual on the (0,1) segment. The e_S individual is able to produce $Y(e_S) = e_S w_N$ units of good y by self-employment. Therefore, his reservation wage is $w_S(e_S) = e_S w_N$. By inspection of the labor supply, there is full employment in the South when the wage is $w_S = w_N$. We assume that the labor market is not fully competitive with wages being set by a monopsonist. The monopsonist's profit maximization problem can be stated as:

$$\max_{e_S \in (0,1)} \int_0^{e_S} (p_S S - w_S(e_S))de \qquad (3.1.5)$$

Solving the problem we obtain the following labour demand equation:

$$e_S = \frac{p_S S}{2w_N} \qquad (3.1.6)$$

The North market for good x is a perfectly competitive one. The Monopsonist is therefore assumed to be price taker on that market.

3.1.4 Equilibrium in Absence of Fair Trade

In this section we assume "international equality concerned preferences", i.e. $\theta>1$. This implies that producing the good in the North is, to some extent, inefficient. In this case the first best solution would be supplying and consuming only the fair South product. We start by describing the aggregate demand. The indirect utility function for the α individual in the North is:

$$U(p; w_N; a) = \left(\frac{w_N}{p_N}\right)^{1-a} \qquad (3.1.7)$$

In the case he buys the North product or:

$$U(p; w_N; a) = (rq)^a \left(\frac{w_N}{p_S}\right)^{1-a} \qquad (3.1.8)$$

if he buys an unfair South product and:

$$U(p; w_N; a) = q^a \left(\frac{w_N}{p_S}\right)^{1-a} \qquad (3.1.9)$$

if he gets a fair South Product. When $p_S=p_N$ the best solution for the consumer is to consume a fair good from the South for each individual α. In the remainder of this section 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 by paying the marginal product of labor to its workers, getting the whole demand in the North and ruling out North producers from the market. On the other hand, he can produce an unfair good, set a price $p_S<p_N$ and get only the less ethical fraction of the demand. In the latter case, the price needs to be lower than p_N because the North product is strictly preferred to an unfair South product.

Proposition 3.1.1. It is optimal, for the Monopsonist, to supply an unfair good, even in presence of ethical traders.

Proof. Suppose the Monopsonist supplies a fair good. In this case it must hold: $w_S=p_S S$ (3.1.10)

Substituting w_S into the Monopsonist's profit function yields zero profits. Suppose instead that the monopsonist 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.:

$$a_0 s.t.(rq)^{a_0}\left(\frac{w_N}{p_S}\right)^{1-a_0}=\left(\frac{w_N}{p_N}\right)^{1-a_0} \quad (3.1.11)$$

The market clearing condition is:

$$\int_0^{e_S} Sde=\int_0^{a_0}\frac{w_N}{p_S}da \quad (3.1.12)$$

or:

$$e_S S=a_0\frac{w_N}{p_S} \quad (3.1.13)$$

where the left hand is the monopsonist's supply and the right hand the demand faced by him. Plugging into the optimal level of e_S found in the previous section and solving for the price yields:

$$p_s = (2a_0)^{1/2} \frac{w_N}{S} \tag{3.1.14}$$

Notice that $p_S<p_N$ requires $\alpha_0<1/2$. We will show later that this condition is indeed satisfied. Substituting e_S and p_S in the profit function we find:

$$p = (2a_0)^{1/2} \frac{(p_s S)^2}{2w_n} - \left(\frac{p_s S}{2w_n}\right)^2 w_n = \frac{a_0 w_n}{2} > 0 \tag{3.1.15}$$

This proposition is trivial in standard textbook analysis of monopsony but not in this case in which the monopsonist faces the following alternative: i) producing an "unfair product" in which wages are below marginal productivity or ii) producing a fair product. The first choice is not necessarily preferred to the second since the increased demand from consumers concerned with fairness may compensate higher labour costs when producing fair products.

Hence, the Monopsonist can make positive profits only by supplying an unfair good. The equilibrium is therefore characterized 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 $1-\alpha_0$-individuals 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.

Proposition 3.1.2 In equilibrium, it holds $a_0<1/2$.

Proof. By manipulation of 3.1.11 (the condition for the indifferent α_0-consumer) we get:

$$rq = \left(\frac{p_S}{p_N} \right)^{\frac{1-a_0}{a_0}} \qquad (3.1.16)$$

Substituting p_S and p_N and taking logs yields:

$$2a_0 \ln(rq) = (1-a_0)\ln(2a_0) \qquad (3.1.17)$$

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

3.1.5 Welfare in Absence of Fair Trade

Under international equality concerned preferences it can be shown that the first best solution involves the production and consumption of the fair South product only. Despite of it, such a product is not supplied and the North production can survive because of the Monopsonist's market power. The welfare in the North, denoted by J_N, is given by:

$$J_N = \int_0^{a_0} (rq)^a \left(\frac{w_N}{p_S} \right)^{1-a} da + \int_{a_0}^{1} \left(\frac{w_N}{p_N} \right)^{1-a} da \qquad (3.1.18)$$

or:

$$J_N \frac{w_N}{p_S} \left(\ln(rq) + \ln p_S - \ln w_N \right)^{-1} \left[\left(\frac{rqp_S}{w_N} \right)^{a_0} - 1 \right] + \left(\ln w_N - \ln p_N \right)^{-1} \left[\left(\frac{w_N}{p_N} \right)^{1-a_0} - 1 \right]$$

(3.1.19)

Notice 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 labor demand is assumed to be perfectly elastic in that country and

unemployed individuals are able to get a new job for the same wage w_N in other sectors of the economy. Furthermore, 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 doesn't reach full employment. This becomes clear by substituting the equilibrium price p_S into the optimal level of labor e_S:

$$e_S = \left(\frac{a_0}{2}\right)^{1/2} < 1 \qquad (3.1.20)$$

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

$$J_S = \int_0^{e_S} w_N e_S \, de + \int_{e_S}^{1} w_N e \, d = \frac{w_N}{2}\left(1 + e_S^2\right) \qquad (3.1.21)$$

and observe that it is an increasing convex function of e_S.

3.1.6 The Fair Trader

Suppose now that a new producer enters the market for good x. Assume further that he is allowed to compete with the Monopsonist on the labor market in the South but, at the same time, he is constrained to produce a fair product. In this model, this implies that he must pay a wage $w_S^F = p_S^F S$ and he cannot make profits. In what follows we will investigate two cases. The first case is when the Fair Trader is allowed to reach any size he desires. The second, more realistic case, is when the Fair Trader faces

some constraints on his size. This second setup corresponds to the intuition that the Fair Trader can better signal his fairness by remaining small.[12] In both cases, since he fixes the wage without taking into account the monopsonist's behavior and, since his product can be differentiated from the monopsonist's product through fairness, it can occur that he sets a higher wage than the monopsonist. More precisely, he is able to produce whatever quantity between 0 and S whenever the price is $p_S^F = \frac{w_S^F}{S}$. On the other hand, he is completely free to set the wage, provided the wage he pays is greater or equal than the monopsonist's one. Consequently, because of the constant returns to scale setup, the Fair Trader controls both variables, i.e. quantity and wage. We assume, therefore, that, whenever w_S^F is greater than the wage paid by the monopsonist and the quantity of labor demanded by the Fair Trader is greater than the supply at that wage, the latter is able to ration efficiently the labor supply. By *efficient rationing* we mean that the Fair Trader is able to discriminate on the basis of the outside option recruiting the workers with the *lowest* reservation wage. As it will become clear later, the assumption of efficient rationing is critical for our results. On the other hand, it seems reasonable if we assume the Fair Trader to be affected by ethical concerns regarding the workers with bad outside options. It must be remarked that this assumption does not imply any price discrimination: both the Fair Trader

[12] The supply of fair traders is not modeled here and therefore the size constraint is an assumption. In the reality the market share of fair traders is constrained by the limited supply of fair traders and the limits of capacity of individual fair traders. Given the zero profit features of this productive activity the number of individuals with strong fairness preferences choosing it is small.

and the Monopsonist are constrained to pay the same wage to each of their workers.

3.1.7 Equilibrium with Fair Trade

North consumers have now three alternative options. They can consume the North product paying p_N, they can consume the unfair South product paying p_S and, finally, they can consume a fair South product paying p_S^F. Under "international equality concerned" preferences, the latter choice is strictly preferred to the formers. This implies that for $p_S^F = p_N = p_S$ the North and the unfair South production are ruled out from the market. We will show indeed that, under this kind of preferences, it exists an equilibrium where only the Fair Trader and the Monopsonist remain in the market, *both supplying a fair product*. This is a nontrivial result since, given the heterogeneity of preferences, one can expect the Monopsonist to be still able to sell an unfair product to the less ethic segment of consumers (the low α individuals). We'll show, on the other hand, how this strategy becomes no more profitable in presence of a Fair Trader.

Since the new producer is able to set the wage he prefers, he can always set a wage $w_S^F = w_N$. In this case the Fair Trader will get 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 labor supply unless either the Fair Trader hires all the workers in the South ($e_S^F = 1$), or the Monopsonist sets the same wage $w_S = w_N$.

In evaluating the impact of the fair trader presence on market equilibria we formulate the following proposition:

Proposition 3.1.3 It exists an equilibrium where $p_S^F = p_N$ *and* $w_S^F = w_N$. *Such an equilibrium is characterised by both absence of North production and* $e_S^F < 1$.

Proof.

Le us denote by ^ the new equilibrium values of the variables after the Fair Trader appears in the economy. From the zero-profit condition, setting a wage $w_S^F = w_N$ implies that the Fair Trader can sell his good when $p_S^F = \frac{w_N}{S} = p_N$. Since both the North and the fair South product have the same price, none in the North want 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:

$$e_S^F = \left(1 - \hat{a}_0\right)\frac{w_N}{Sp_N} = 1 - \hat{a}_0 < 1 \qquad (3.1.22)$$

The result stated above says that, whenever the Fair Trader sets a wage equal to the North wage, we can have two different equilibria. A rationing equilibrium in which the Monopsonist sets a wage lower than w_N and the Fair Trader faces excess labor supply and a market clearing equilibrium where both producers set the wage w_N, produce a fair good, and sell it for the same price p_N. We will show now that, if the Fair Trader rations the labor supply efficiently, the first equilibrium is impossible. Therefore, if the rationing is efficient there will be no need for it in equilibrium. The

intuition is that, by efficient rationing, the Fair Trader is able to hire the low outside option workers whereas the labor supply faced by the Monopsonist is truncated in correspondence of those workers. Consequently, the latter is bound to recruit high outside option individuals. This, in turns, creates the need for the Monopsonist to raise the wage in order to hire some workers and produce a positive quantity. Such effect is, in general, not offset by the fall in the demand faced by the Monopsonist due to the competition of a fair South product.

Proposition 3.1.4. If the Fair Trader efficiently rations the labor supply, the Monopsonist is bound to set a wage $\hat{w}_S = w_N$*, produce a fair good and hire all the residual labor force, i.e.* $\hat{e}_S = 1^-$.

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

$$\max_{e_S \in (e_S^F, 1)} \int_{e_S^F}^{\hat{e}_S} (p_S S - w_S(\hat{e}_S))de \tag{3.1.23}$$

the Kuhn-Tucker conditions are:

$$l\left(\hat{e}_S - 1\right) \leq 0; l \geq 0 \tag{3.1.24}$$

and:

$$m\left(e_S^F - \hat{e}_S\right) \leq 0; m \geq 0 \tag{3.1.25}$$

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

$$\hat{e}_S - e_F = \frac{\hat{p}_S S - w_N e_F - l + m}{2w_N} \qquad (3.1.26)$$

implying the existence of an interior solution whenever

$$\frac{w_N}{S}(1-\hat{a}_0) < \hat{p}_S < \frac{w_N}{S}(1+\hat{a}_0) = p_N(1+\hat{a}_0) \qquad (3.1.27)$$

On the other hand, $\hat{a}_0\left(\hat{p}_S\right) \to 0^+$ 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.

3.1.8 Welfare under fair trade

What is the effect on welfare of the fair trader's entry? The following proposition shows that, under reasonable assumptions, the creation of a fair trade market may be Pareto improving for both North and South consumers

Proposition 3.1.5 The introduction of fair trade generates a Pareto improvement for producers in the South and even for consumers in the North if they are not national equality concerned and if the ex ante share of the monopsonistic product is large enough.

With the introduction of fair trade there are two possible equilibria depending on the efficient/inefficient rationing of the fair trader. Under the first equilibrium (defined as equilibrium FT1) the fair trader is unable to pick South workers with the lowest reservation wage, the monopsonist maintains its unfair wage and the fair trader hires the excess labour

supply. Under the second equilibrium (defined as equilibrium FT2) efficient rationing occurs and both the monopsonist and the fair trader produce fair products (see section 3.1.7).

Under the first equilibrium the product of the North is replaced by the fair trade product. The introduction of the South fair product generates a shift from the monopsonist product toward the new product of consumers which are international equality concerned or neutral between international or national concerns (induced by the fairness argument in their preferences). This shift generates a feedback effect on monopsonist prices which get lower (see 3.1.14).[13] Welfare in the North is now:

$$J_{N(F1)} = \int_0^{a_{(F1)}} (rq)^a \left(\frac{w_N}{p_S}\right)^{1-a} da + \int_{a_{(F1)}}^1 q^a \left(\frac{w_N}{p_N}\right)^{1-a} da \qquad (3.1.28)$$

and must be compared with (3.1.8). By inspecting the two welfare functions and comparing choices we realise that consumers in the North may fall into three situations: i) those consuming before the product of the North and now the fair trade product are better off (worse off) if they are international (national) equality concerned (or indifferent between national and international products); ii) those who keep on consuming the unfair product in the South are better off since the product is less expensive given that the share of the monopsonist is reduced; iii) those moving from the monopsonist to the fair trader are better off by a revealed preference argument. They in fact would be better off if consuming the old product (its price is lower), they must remain better off if they decide to move to the new product.

[13] Since the monopsonist demand elasticity is less than infinite the demand shock reduces prices in equilibrium.

Under the second equilibrium (fair trader efficient rationing) all consumers consume a fair trade product produced either by the monopsonist or by the fair trader. Consumers' welfare in the South turns into:

$$J_{N(F2)} = q^{a}\left(\frac{w_N}{p_N}\right) \qquad (3.1.29)$$

To compare the new and the old situation consider that this expression may be rewritten as:

$$J_{N(F2)} = \int_0^{a_0} q^{a}\left(\frac{w_N}{p_N}\right)^{1-a} da + \int_{a_0}^{1} q^{a}\left(\frac{w_N}{p_N}\right)^{1-a} da \qquad (3.1.30).$$

By comparing this welfare function with (3.1.8) we obtain that

$$J_{N(F2)} - J_N = \int_0^{a_0}\left[q^{a}\left(\frac{w_N}{p_N}\right)^{1-a} - rq^{a}\left(\frac{w_N}{p_S}\right)^{1-a}\right]da + \int_{a_0}^{1}\left[q^{a}\left(\frac{w_N}{p_N}\right)^{1-a} - \left(\frac{w_N}{p_N}\right)^{1-a}\right]da$$

(3.1.31).

The first part of the (3.1.31) compares the situation of those consuming ex ante the unfair and ex post the fair product. The second part the situation of those consuming ex ante the North and ex post the South fair product. In the second case consumers are better off (worse off) if they are international (national) equality concerned (or indifferent between national and international products). In the first case the situation is more complex because the removal of unfairness is accompanied by a price which is higher than that of the monopsonist.

By considering (3.1.4) and (3.1.14) we may rewrite the difference as:

$$J_{N(F2)} - J_N = \int_0^{a_0} \left[q^a \left(\frac{w_N}{p_N} \right)^{1-a} - q^a \left(\frac{w_N}{p_N} \right)^{1-a} r^a \left(\frac{1}{(2a_0)^{1/2}} \right)^{1-a} \right] da + \int_{a_0}^{1} \left[q^a \left(\frac{w_N}{p_N} \right)^{1-a} - \left(\frac{w_N}{p_N} \right)^{1-a} \right] da$$

(3.1.32)

If the ex ante share of the monopsonist is high and tends to 0.5 the fairness effect prevails over the price effect and also the welfare of those consumers is higher. This occurs because the higher the ex ante share of the monopsonist, the higher the demand and the next its price to the competitive one.

3.2 Additional results and extensions of the model

In our base model we assumed that socially responsible consumers may only know whether a product is fairly or unfairly produced but cannot measure its degree of unfairness. Therefore we wonder what is the net effect of the existence of consumers with ethical preferences in absence of fair trade. To check this we need to calculate the effects of a reduction of ρ (with ρ<1), that is of the disutility of unfairness in preferences of socially responsible consumers.[14] Our results are expressed in the following proposition

Proposition 3.2.2 Socially responsible preferences are harmful (welfare reducing) without socially responsible production (Or the paradox of

[14] An overall reduction of *r* which does not change the distribution of consumers over the parameter α is equivalent to a general increase in the disutility of fairness given the heterogeneous beliefs of consumers on the weight to be given to fairness relative to the quantity consumed.

asymmetrically informed socially responsible consumers in absence of socially responsible producers)

By using the monotone transform of the utility funcion V=lg(U) and by considering that the equilibrium share of consumers choosing the monopsonist good, the equilibrium price and employment of the monopsonist is given by the solution of the following three equation system made by:

$$a_0 \lg(rq) + (1-a_0)\lg\left(\frac{w_N}{Ps}\right) = (1-a_0)\lg\left(\frac{w_N}{P_N}\right) \qquad (3.2.1)$$

(or alternatively by the 3.1.17), by

$$e_S = \left(\frac{a_0}{2}\right)^{1/2} \qquad (3.2.2)$$

and by:

$$p_s = (2a_0)^{1/2}\frac{w_n}{S} \qquad (3.2.3)$$

where (3.2.2) is obtained by plugging (3.2.3) into (3.1.6).

By replacing (3.2.3) in (3.2.1) we immediately see that $da_0/dr>0$ in the parameters interval for which $\alpha<.5$ and $r<1$ [15] since a lower r reduces the value of the right addend and therefore shifts the marginal consumer toward the product of the North (see Fig. 1).

By inspecting the last two equations we find that equilibrium levels of both employment and price of the monopsonist fall when α_0 falls. By looking at external unfairness and by defining it as the ratio between the

[15] This is because as r tends to one and α tends to .5 the price of the monopsonist is equal to that of perfect competition. Therefore there is multiplicity of equilibria the univocal relationship between α r and no more holds.

monopsonist wage and the competitive wage (w_N/w_S), we find that it gets higher. Consider also that, by definition of w_S, our model has the nice property that fairness coincides with employment in the South.

If instead we look at internal fairness, measured as the ratio between the value of workers' marginal product and monopsonist' wage, ($p_S S/w_S$ which, by replacing for w_S and w_N, may be rewritten as $p_S/e_S p_N$) we find that it is higher but only because the drop in prices is higher than the drop in wages (just compare first derivatives with respect to α_0 in 3.2.2 and 3.2.3) and because we assumed constant marginal productivity in the monopsonist' industry.

In both cases welfare is lower in the South (since it is a convex function of e_S) and also in the North (the reduced satisfaction of consumers still buying the unfair product is accompanied by the indifference of those consuming ex ante and ex post the North product, while those moving to the North product are not better off by a revealed preference argument).

Our results are valid because the monopsonist, even in presence of ethically concerned consumers, finds it optimal to be monopsonist and not to become a fair producer. This is true since, under Proposition 3.1.1, which still holds under a higher ρ, we found that in equilibrium, the monopsonist always finds it optimum to produce the unfair good as $\alpha_0<1/2$ in equilibrium. The intuition behind this proposition is that the monopsonist has two possible equilibria in the range of the possible degree of consumers' fairness. If consumers' fairness is very low (ρ tends

to one and $\alpha=1/2$), product demand is very high and the monopsonist level of production is such that there is no unfairness.

3.2.1 Fair trade and the role of tariff barriers

European and US Agricultural Policy have created tariff and non tariff barriers to agricultural goods which are produced outside Europe and the US and imported in these areas. The reduction or removal of these barriers is currently under discussion in WTO rounds. In this model we try to analyse the effects of these barriers on wage and employment when the importer has some market power (the monopsonist firm in our model). We also wonder how our previous conclusions on the welfare effects of fair trade change under the consideration of tariff barriers. The framework which considers these barriers also allows us to analyse the effects of all those policy measures which may alter relative prices between the traditional product and the fair trade product. Examples of these policies are i) the discussion about tax allowances for fair trade products in several EU countries; ii) the proposal to devolve one percent of VAT on all food products to projects supporting development in the South advanced by Italian government, or iii) the reduction or removal of tariff barriers on products imported from the South. It is clear that, while proposal i) would lead to an reduction in the taxation of fair trade products relative to traditional products, proposal iii) would have similar effects on both products.

To evaluate the impact of these policy proposals under discussion we start by analysing the simple effect of the existence of tariff barriers in our model.

The presence of price barriers for all products imported from the South changes the monopsonist's first order condition into:

$$e_s(t) = \frac{p_s(1-t)s}{2w_N} \qquad (3.2.4)$$

The introduction of the tariff therefore reduces the monopsonist's labour demand.

With the introduction of the tariff, and under the assumptions of our model, the FT product cannot compete anymore with the perfect competition product of the North and therefore is out of the market. This is because its zero profit condition becomes $p_s^F(1-t)S - w_s^F = 0$ and therefore the equilibrium price is below the price of the product produced in the North.[16]

The market clearing equilibrium for the monopsonist is now

$$e_s(t)S = a_{0(t)}\frac{w_N}{p_s} \qquad (3.2.5)$$

By replacing p_s obtained from (3.2.7) in (3.2.6) we obtain the amount of South workers employed in equilibrium by the monopsonist

$$e_s(t) = \left(\frac{a_{0(t)}(1-t)}{2}\right)^{1/2} \qquad (3.2.6)$$

and the optimal equilibrium price

[16] This solution could be avoided if we assume that the product in the North has some market power, if the fair trader accepts to produce with some degree of unfairness or if consumers' preferences are international equality concerned. But this is not what happens in our base case.

$$p_s(t) = \left(\frac{2a_{0(t)}}{1-t} \right)^{1/2} \frac{w_N}{S} \qquad (3.2.7)$$

To compare equilibrium levels of p_S and e_S with those without tariff we need to consider also changes in the share of consumers which now purchase the unfair product in the South.

$$a_{0(t)} \lg(rq) + (1-a_{0(t)}) \lg\left(\frac{w_N}{p_s(t)} \right) = (1-a_{0(t)}) \lg\left(\frac{w_N}{p_N} \right) \qquad (3.2.8)$$

Therefore the new equilibrium share of consumers choosing the South product, the new levels of employment and price for the monopsonist will be given by the solution of the system of the last three equations.

To compare this new situation with that of the base model without fair trade replace (3.2.9) for p_s in (3.2.10). This makes clear that $\alpha_{0(t)}<\alpha_0$ calculated in (3.1.11). Since the reduction in demand is a feedback effect of the higher price, we can easily check that prices are higher than in the no-fair-trade equilibrium, while employment in the South is lower for two reasons: reduced demand and the tariff. The tariff definitively reduces welfare (with respect to the no fair trade equilibrium) in the South since the latter is a convex function of e_S. Welfare of consumers in the North is also reduced because the monopsonist product is more expensive.

If we compare the new situation with respect to the efficient rationing equilibrium we find that the effect on welfare in the South is again negative. The effect on welfare of consumers in the North is also negative provided that the fairness effect and the international equality concerns prevail over a monopsonist price which might still be lower after the tariff

than the price of the fair product alternatively consumed under the no tariff benchmark.

The introduction of the tariff raises the *internal* level of unfairness (measured as the ratio between the South workers' wage and the value of their marginal product) since it reduces employment and increases prices. Since in our model we assume that consumers are asymmetrically informed and only perceive whether a product is unfair or not, the increase in unfairness has no consequences on monopsonist' market demand.

Under the existence of a tariff, an exemption for the fair trade product which exactly counterbalances the different taxation between products imported from the South and the perfect competition product in the North may restore the no tariff equilibrium described in the base model. Therefore the change in welfare is exactly the inverse of the change in welfare generated by the tariff.

3.2.2 Considerations on the relationship between fair trade and child labour

Fair trade may have consequences on welfare which go beyond what described so far. The relationship between fair trade and welfare in the South may be made more clear by linking wages to some social indicators. Consider for instance that, according to the luxury axiom, parents send child to work when household wage falls below a given subsistence level[17]

[17] Theoretical support for the luxury axiom may be found, among others, in Basu and Van (1998), Basu (1999) and Baland and Robinson (1998). The luxury axiom is successfully tested by Ray (2001) in Peru. More generally the inverse relationship between per capita income and child labour is successfully tested in almost all empirical

w_{min} and imagine that $w_S < w_{min} < w_N$. It is therefore clear that the introduction of fair trade reduces child labour in the South and that efficient rationing described in proposition 3.1.4 has even stronger effects on the reduction of child labour. Therefore an explicit ban of child labour products (which per se does not rise household income and does not lead parents to send children to school) may be less efficient than efficient recruiting in reducing child labour. Fair trade producers may nonetheless stress the importance of fighting child labour on their products since the income they ensure to producers automatically allows the possibility to send children to school. Therefore they may require that the luxury axiom be applied. The ban may therefore make sense with the fair product but not in absence of fair product.

Conclusions

Individuals are learning that globalisation has created new problems but also increased their capacity to campaign and to organise 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 and may help to redress some market failures. This contribution is crucial in this phase in which regulation of global public goods (or bads) has been made more urgent by globalisation. Bottom-up welfare measures such as Fair trade in fact, while having per se beneficial effects which have been described in this paper, may also be

analyses on the determinants of child labour (see Cigno-Rosati-Guarciello (2001), Shelburne (2001), Becchetti-Trovato (2002)).

the first step for revealing the increasing public support for a reform of global governance (and in particular, in the case of fair trade, for a global antitrust regulation and for a removal of uneven trade and non trade barriers).

Fair trade is therefore an interesting attempt of rebalancing North-South trade armonising together in an original mix four different approaches to social justice: i) the role of contractualism and governance (Rawls, 1972) whose reform is urged and implicitly supported by the rise and 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 and formulas and may not ensure by themselves that a society will follow the path of socially and environmentally compatible development.

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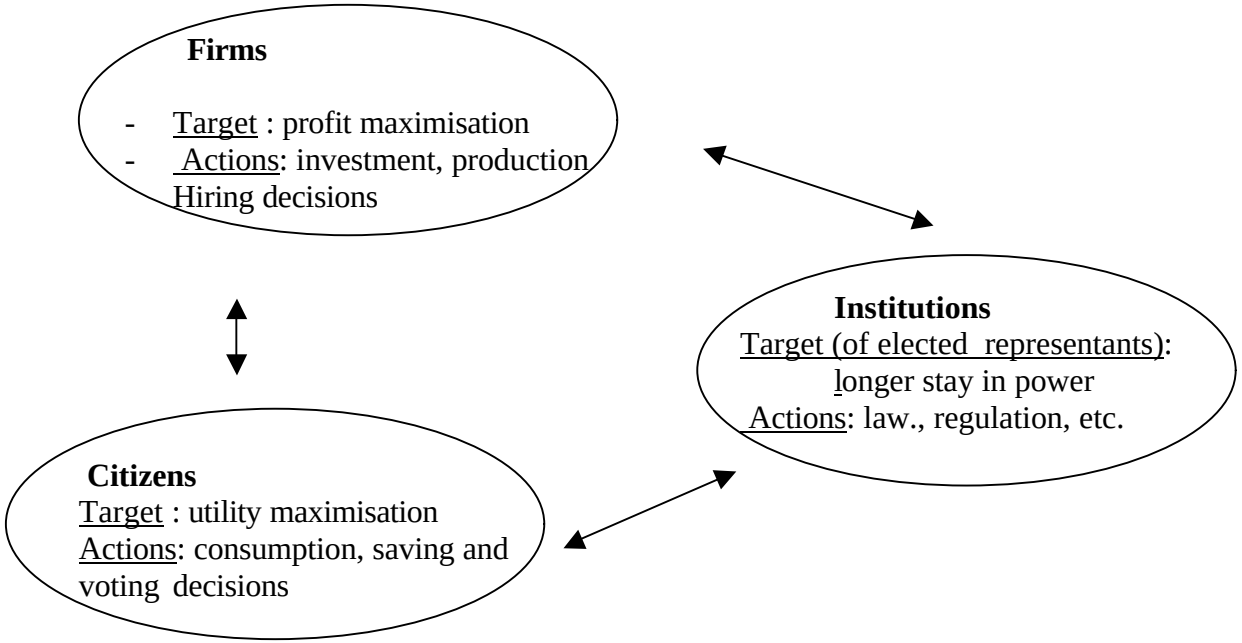
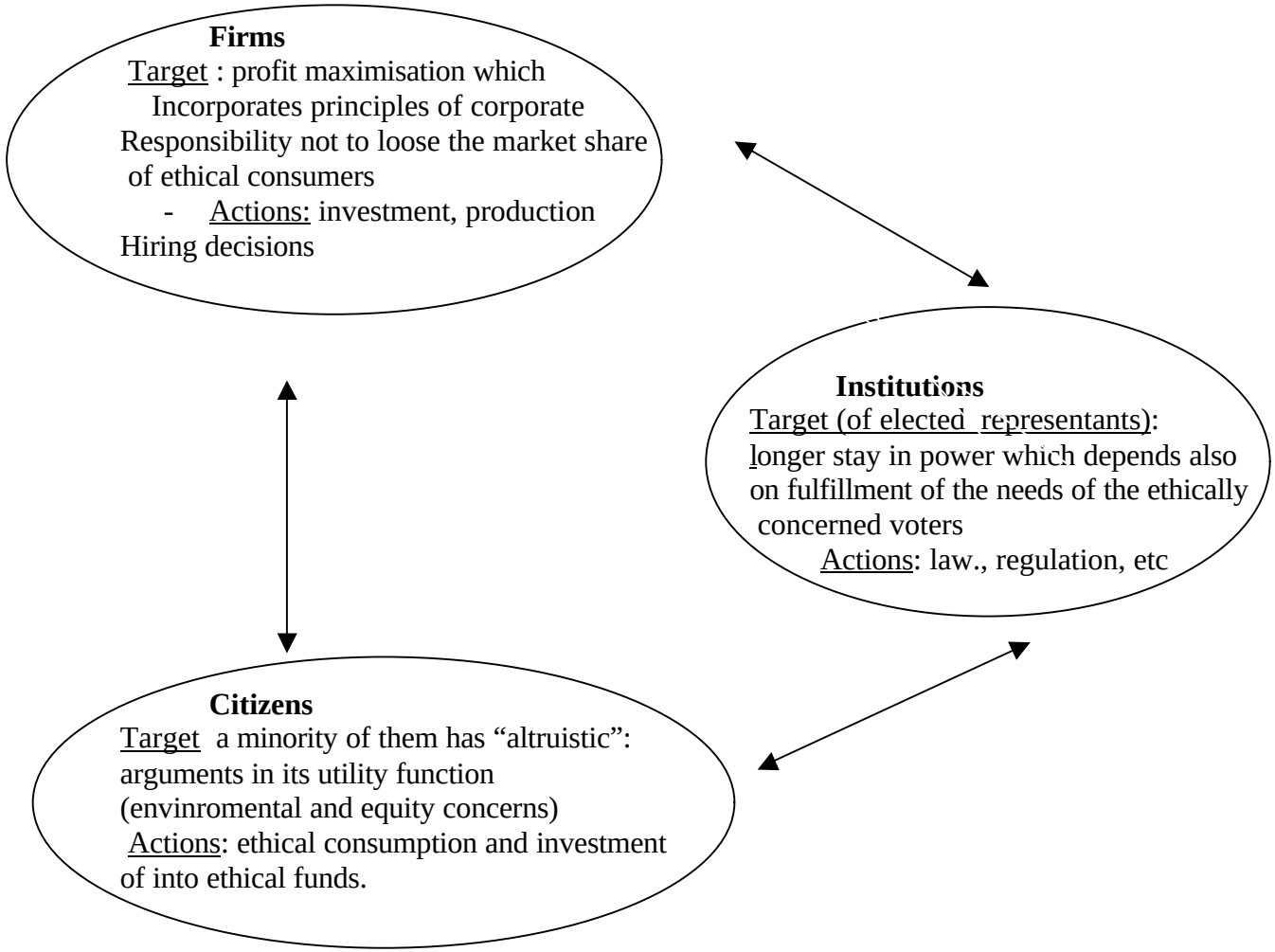
Fig. 1 The traditional Economy



The limit of this system

Public good deficit generated by insufficient internalisation of social losses generated by selfish behaviour. Insufficient production of "social capital" which reduces efficiency of market mechanisms

Fig. 2 A virtuous circle for the globalised economy



Source: Becchetti-Fucito (2000)