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What If Markets Have Always Been Distorted? Would It Then Be a Good Fix to Add Fair Trade Margins to Correct Distorted Agricultural Market Prices?.

By

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Abstract

It has always been assumed that we live in a world of perfect markets, where supply and demand interactions work magically in the absence of market distortions or externalities. Today we know we live in a world ruled by overproduction and overconsumption, which promote ongoing wasteful, polluting and degrading social and environmental processes. Is it possible that the traditional perfect market's assumptions can be responsible for these negative outcomes through the creation of supply and demand scenarios that only meet at the lower pure economy price; and therefore lead to economic market flooding and waste? If yes, that means that we have been living in distorted markets all this time, market that do not reflect the right price; and these distortions need to be corrected now to ensure that the traditional perfect market reflects sustainability rules.

The general goals of this paper are: a) To introduce the notion of the right market price, the traditional market price, and the corrected market price and to show how they can be related to ensure traditional market sustainability; b)To extend this notion to the right agricultural market price, to the traditional agricultural market price, and the corrected agricultural market price and to point out how they can be linked to ensure that agricultural markets are consistent with sustainability rules; and c) To list some relevant specific and general conclusions.

Introduction

a) The market assumptions.

The main market assumptions can be summarized as follows:

i) Pure supply and demand interactions determine the price in the traditional perfect market.

You can produce and consume as much as you want as long as there are buyers and sellers, there is no scarcity, and there are no limits to growth. Prices then are determined solely by the free interaction of supply and demand; and when the world works this way, this is socially optimum.

ii) No market distortions.

As a consequence of the perfect market assumptions, there are no market distortions such as social and environmental and other costs associated with production and consumption affecting other parties. Externalities are assumed to be insignificant or zero and therefore, if they exist, they fall outside the dominion of the market.

iii) No true sustainability concerns.

Therefore, the are no true sustainability concerns under the traditional perfect market, only economic concerns matter.

iv) The same assumptions hold for the agricultural market.

The agricultural market price is determined at the point that supply and demand meet in an environment without distortions or externalities. Only economic sustainability is relevant in traditional markets, including the agricultural market.

v) In summary.

In the past, it has always been assumed that we live in a world of perfect markets, where supply and demand interactions work magically in the absence of market distortions or externalities. Amegashie(2006) points out that institutions like the World Bank follow these perfect market assumptions literally to support their decision making process and policy recommendations even so these conditions may not exist in the real world. Hence, it has always been assumed that economic sustainability has nothing to do with true sustainability. Under these assumed conditions then, it is normal to claim that any action that violate these assumptions will distort a market. For example, it is said that fair trade pricing violates traditional supply and demand rules(Callahan 2008) as these laws as mentioned above are assumed not to be distorted.

This situation makes it easy for traditional economists/planners to ignored or brush off issues just because they fall outside those market assumptions or to suggest solutions that eliminate the academic pressure or need to internalize them. In other words, if issues falling outside the assumptions like social and environmental equality and justice and related problems such as fair trade are present, they will be ignored as traditional economists/individuals consider them exogenous issues. Tarnoff(2004) expresses his frustration with the inability of traditional economic theory to deal with issues such as fair trade. The author believes that it can be argued too that because it has been assumed all this time that demand and supply in the perfect market have nothing to do with environmental issues we are now dealing with a growing global warming puzzle. It has been pointed out that to link the need to deal with global warming with the greening of agricultural activities the traditional market price in agriculture needs to be adjusted to reflect among other things a green margin making the global warming price higher than the traditional market price(Muñoz 2008); and then they will be responsive to green supply and demand pressures.

b) The practice.

A hard look at reality leads to the following facts:

i) There are market distortions.

Current knowledge indicates that there are social, environmental and other negative externalities associated with market forces and these costs on third parties are real and should also be reflected in market prices, but since they have been assumed to be minimal or nonexistent or falling outside the model, they have not yet been included. This has led to market prices that have been or are lower than they would be if externality costs or margins were added to arrive at the right market prices. This situation is not a socially optimum position.

ii) Distorted supply and distorted demand interactions have led to lower prices.

Ignoring market distortions has sent the wrong signals to the market. Not reflecting the cost of distortions or externalities means that we have markets ruled by the interactions of dirty supply and dirty demand, and therefore, leading to lower prices than if we had added the externality margins left out to the traditional market price. Dirty here means that supply and demand considerations do not reflect the cost of externalities.

iii) The results of living in a distorted market reflecting only the economic side.

Simple economic theory suggest that lower prices than they otherwise should have been would lead to more production and more consumption and to the promotion of ongoing generation of waste, pollution, degradation, and the social and environmental neglect.

iv) The same implications are true for agricultural market.

The agricultural market price is determined at the point where dirty supply and dirty demand meet as this process takes place in an environment full of distortions or externalities that are not reflected in that price. Lower agricultural prices then have led to overproduction and overconsumption in agricultural markets.

v) There are true sustainability concerns.

Today, there seems to be a consensus that we need to deal with the externalities associated to economic development, specially socially and environmental distortions, to be able to build the foundations of true sustainability.

vi) In summary:

Today we know we live in a world ruled by overproduction and overconsumption, which promote ongoing wasteful, polluting and degrading social and environmental processes; and it is clear today that this situation is not sustainable. Besides markets being poorly priced or distorted because of the traditional market assumptions mentioned above, a second wave of distortions comes when providing subsidies, which encourage not just more overproduction and overconsumption, but also commodity dumping. Dumping is leading to a third wave of market distortions as protectionist voices, justifiably or not, lead to ongoing trade unpredictability, and therefore, unsustainability. For example, Davis(2009) points out how the European Union may be relying on

antidumping laws to remain competitive in areas and industries where it not longer has a comparative advantage.

In other words, we know that the economy must incorporate the cost of distortions to be truly sustainable and to promote responsible economic, social, and environmental behavior. Under these real conditions then, it is wrong to claim that actions taken to correct distorted markets will distort them more as these actions are needed to correct them. For example, we should expect that if prices allow producers to meet their economic goals while meeting their social and environmental responsibilities, then we would be encouraging positive economic behavior on all producers, not just on so called fair trade producers. Hiscox(2007) points out that fair trade works in promoting positive economic behavior because it allows profitability while being able to provide better social and environmental rights. The key to the economic structure and positive impact of fair trade on local economic, social and environmental conditions is found in the especial relationship connecting fair trade producers with ethical demand(Hayes and Moore 2005).

Under this line of thinking, corrected markets encourage responsible economic behavior leading producers towards the optimization of production or the socially optimal output, which may lead to the following: a) It will make it more difficult for traditional economists/planners to ignore or brush off issues that fall outside traditional assumptions such as fair trade margins and other externality based actions; b) It may induce them to incorporate them in their models as they would be then endogenous issues; and c) It will satisfy critics of the old economic model as now they should expect to see an adjusted economic thinking that is able to deal with all issues as endogenous issues. Actions in this direction appear to be under way. For example, now the term "sustainable consumption" is being used in OECD countries not only from its economic aspects but also from its related social and ecological aspects indicating attempts to internalize social and environmental issues in sustainable consumption policy implementation(OECD 2008).

The need to better understand the implications of poorly price and corrected markets

Current knowledge shows that there are more than just economic issues in a market, and therefore, the traditional market price, including the agricultural market price, may be distorted as they do not include externality margins. It has been recently indicated that from the point of view of sustainability, the perfect market is not sustainable(Muñoz 2001). Hence, poorly price markets would not reflect social, environmental, and other externalities, making issues such as fair trade in general and agricultural fair trade in particular fall outside the economic domain while corrected markets would make those externality issues endogenous to market economics.

Then, the following questions and their implications are relevant: What if markets, including agricultural markets, have always been distorted? Would it then be a good fix to add fair trade margins to correct distorted agricultural market prices? This paper provides a production and consumption framework that makes it possible to contemplate the market implications of living under the rule of underpriced markets and of corrected markets.

Goals of this paper

The general goals of this paper are: a) To introduce the notion of the right market price, the traditional market price, and the corrected market price and to show how they can be related

to ensure traditional market sustainability; b) To extend this notion to the right agricultural market price, to the traditional agricultural market price, and the corrected agricultural market price and to point out how they can be linked to ensure that agricultural markets are consistent with sustainability rules; and c) To list some relevant specific and general conclusions.

Methodology

First, the terminology used to present the ideas in this paper is listed. Second, some operational concepts are presented, discussed and implications analyzed. Third, the notion of the real market price, its components, and implications are introduced. Fourth, it is pointed out how the traditional market price is derived from it and relevant implications are mentioned. Fifth, it is described how the traditional market price can be corrected to reflect social and environmental sustainability requirements. Sixth, the implications of different price structures and markets on production and consumption are summarized. Seventh, the idea of the clean market is pointed out graphically and analytically.

Eighth, the notion of the real market price is applied to the agricultural market. Ninth, the notion of the traditional market price is presented in the agricultural context. Tenth, the notion of the corrected market price is expressed in agricultural terms to reflect social and environmental responsibility in agriculture. Eleventh, the implications of different price structures and markets on agricultural production and consumption are summarized. Twelfth, the idea of the clean agricultural market is pointed out graphically and analytically. And thirteenth, some relevant specific and general conclusions are provided.

Terminology

The terminology used to convey the ideas in this paper are listed below.

Table 1

SE = Social externality	EE = Environmental externality
OE = Other externalities	GM = Green margin
SM = Social margin	OM = Other margins
FTM = Fair trade margin	P = Traditional market price
RMP = Right market price	DMP = Distorted market price
DM = Dirty market	D = Dirty demand
S = Dirty supply	DP = Dirty price
CM = Clean market	D* = Clean demand

S* = Clean supply	CP = Clean price
TMP = Traditional market price	CMP = Corrected market price
Mi = Margin "i"	RAMP = Right agricultural market price
AMi = Agricultural margin "i"	TAMP = Traditional agricultural market price
RM = Right market	CAMP = Corrected agricultural market price
TM = Traditional market	AFTM = Agricultural fair trade margin
CoM = Corrected market	Q* = Clean quantity
AMi = Agricultural margin "i"	AP = Traditional agricultural price
AGM = Agricultural green margin	CAM = Corrected agricultural market
ASM = Agricultural social margin	TAM = Traditional agricultural market
Pi = Price " i "	Qi = Quantity " i "

Operational concepts

a) About distortions.

i) Social externalities(SE): the social issues or distortions associated with economic development such poverty, landlessness, homelessness, relocation processes, access to basic food, education and health .

ii) Environmental externalities(EE): the environmental issues or distortions associated with economic development such as waste(e.g. industrial waste), pollution(e.g. global warming), and degradation(e.g. ecosystems).

iii) Other externalities(OE) : any other issue or distortion associated with economic development besides social and environmental externalities affecting external actors or markets.

iv) Externality gap: If we assume that the distortions or externalities associated with traditional economic development fall within these three categories, then an externality gap can be identified with the help of Figure 1 below. For example, if we assume now that traditional economic development is taking place at point "b" in Figure 1 and that development reflecting externalities is taking place at point "c", then the externality gap is the space between supply S1 and S*. Hence, at point "c" there is a clean market and at point "b" there is a dirty market.

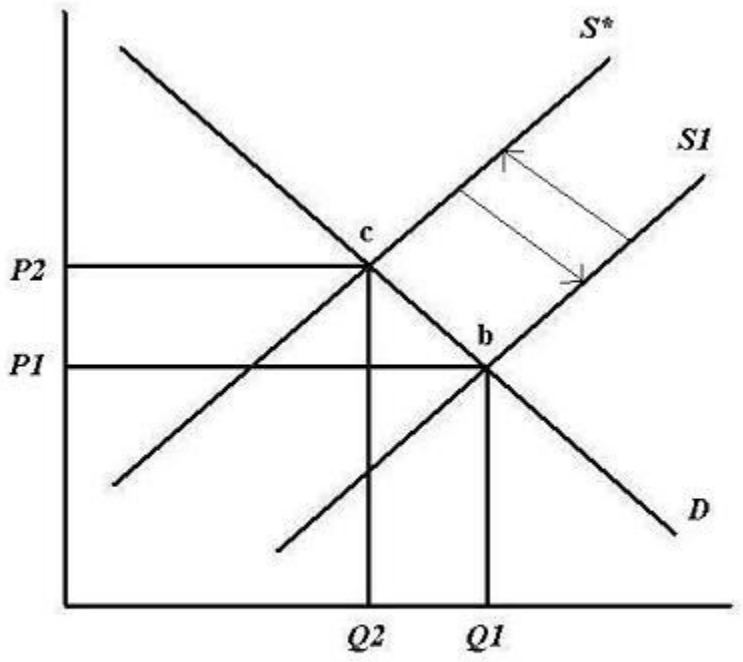

Figure 1 Dirty and Clean Markets
Dirty markets do not reflect the cost of market distortions or externalities and clean markets do.

b) About Margins.

i) Social margin(SM): to cover the cost of making business socially friendly

ii) Green margin(GM): to cover the cost of making the business environmentally friendly.

iii) Other Margin(OM): to cover the business cost of dealing with others non-social, non-environmental externalities.

iv) Fair trade margin(FTM): compensates for the cost of being both social(SM) and environmental(GM) friendly at the same time.

v) The margin range: the difference between right market price(RMP) and the distorted market price(DMP). For example, if we assume that the right market price(RMP) is P2 in Figure 1 above and we assume that the distorted market price(DMP) is P1, then the margin range is the distance from point "c" to point "b" or the difference P2 – P1.

c) About prices.

i) Right market price(RMP): the market price that also reflect all externality margins.

ii) Distorted market price(DMP): the market price that does not includes some or all externality margins.

iii) Cleanest price: the cleanest price then would be the right market price(RMP) as it includes all externality margins.

iv) Dirtiest price: the dirties price would be the traditional perfect market price(P) as it leaves out all externality margins.

v) Corrected market price(CMP): the market price that aims at being both socially and environmentally friendly at the same time as this price includes social and green margins.

***vi) Price implications*:** the right market price(RMP) as the cleanest price should be expected to encourage processes of responsible production and consumption while the distorted market price(DMP), especially at its dirtiest price, should be expected to lead to irresponsible production and consumption.

From Figure 1 above, it can be seen that the right market price(RMP) is determined at point "c" where the price P2 reflects all externalities and therefore, this is the cleanest price. It can also be seen that a distorted market price(DMP) is determined at point "b" and that this price P1 is the dirtiest price as it reflects no externalities. It can also be seen that distorted market prices or dirty prices are lower than right market prices($P1 < P2$); and therefore, overproduction and overconsumption will show under dirty prices.

Notice that if we assume that P2 is the corrected market price(CMP) in Figure 1 above, then point "c" indicates the meeting point of a socially and environmentally friendly market; and society would be better off producing and consuming at this point. It should also be indicated that the corrected market price(CMP) is greater than the distorted market price(DMP) and again economic flooding and waste would take place under distorted prices as they are lower..

d) About dirty markets(DM).

i) Dirty demand: socially and environmentally irresponsible demand(D).

ii) Dirty supply: socially and environmentally irresponsible supply(S).

iii) Fully dirty market: a market ruled by the interaction of socially and environmentally irresponsible supply(S) and demand(D) at the same time.

iv) Partially dirty markets: a market with a socially and environmentally irresponsible supply(S) or demand(D).

v) Market implications: the perfect market is a fully dirty or irresponsible market as it is driven by both dirty supply and dirty demand at the same time; and therefore, the perfect market price is a dirty price as it is socially and environmentally irresponsible. When markets are missing either

a dirty supply or dirty demand we have imperfect markets or partially irresponsible markets. It can be seen that all dirty markets lead to a dirty price(DP), fully or partially.

If we assume that P1 in Figure 1 above is the traditional market price(P), which does not reflect any externalities, then point "b" reflects the interaction of dirty supply(S1) and dirty demand(D), a fully dirty market(DM) with a fully dirty price(DP), where DP = P1 = P.

e) About clean markets(CM).

i) Clean demand: socially and environmentally responsible demand(D*).

ii) Clean supply: socially and environmentally responsible supply(S*).

iii) Fully clean market: a market ruled by the interaction of socially and environmentally responsible supply(S*) and demand(D*) at the same time.

iv) Partially clean markets: a market with a socially and environmentally responsible supply(S*) or demand(D*).

v) Market implications: corrected market price(CMP) is a fully clean price as it is determined by the interaction of both clean supply and clean demand at the same time; and the corrected market is a clean market. When markets are missing either a clean supply or clean demand we have imperfect markets or partially responsible markets. All clean markets lead to a clean price(CP), fully or partially.

If we assume that P2 in Figure 1 above is a socially and environmentally responsible price or corrected market price(CMP), then point "c" reflects the interaction of clean supply(S*) and clean demand(D*), a fully clean market(CM) and a full clean price(CP), where CP = P2 = CMP.

Stating the notion of the right market price

a) The nature of the price.

The right market price(RMP) was defined above as the traditional market price(P) plus all externality/distortion margins($\sum$Mi), which can be expressed as follows:

1) $RMP = P + M1 + M2 + M3 + M4\ldots. + Mn$

2) $RMP = P + \sum_{i=1}^{n} Mi$

b) The supply and demand scenario.

The structure of the right market(RM) as can be seen in point "a" in Figure 2 below, i.e., the right market price shifts the supply curve to the left:

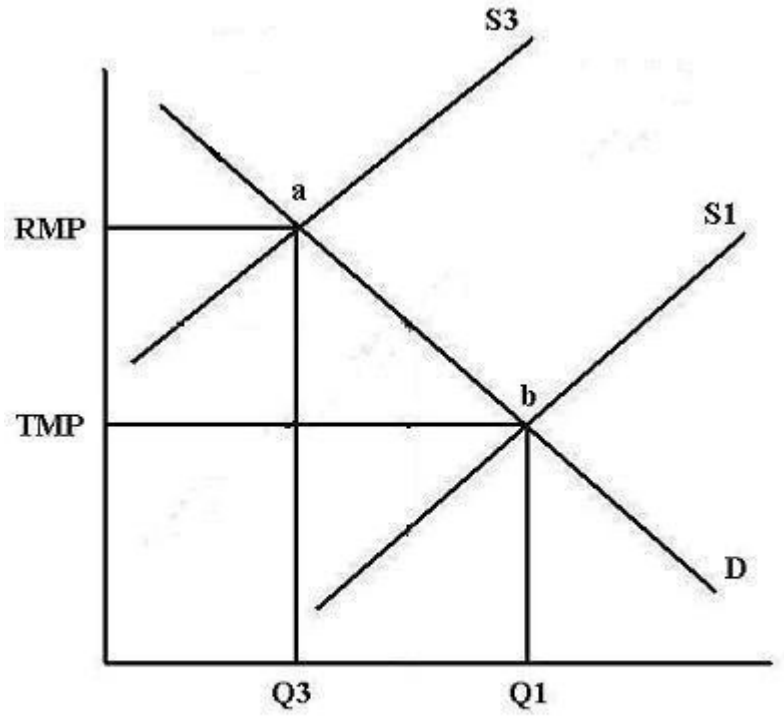

Figure 2 **Right and Traditional Market Price: The right market price(RMP) is greater than the traditional market price(TMP) as it also includes the cost of externalities or distortions.**

Hence, the right market(RM) structure can be expressed as follows:

3) RM = S3.D at Q3

The above indicates that the right market(RM) reflects the interaction of the right supply S3 and the right demand D leading to a quantity Q3 that is lower than the traditional market quantity Q1 and to a price RMP that is higher than the traditional market price, TMP = P.

c) Implications.

The right market(RM) should lead to less production and less consumption as it has a higher price(RMP) than the traditional market price(TMP) as it can be seen in Figure 2 above.

Notice that RMP > TMP and that Q3 < Q1 and therefore, the higher the price, the less consumption and production should be expected.

Deriving the traditional market price

a) The nature of the price.

One implication of the operational concepts listed above is that the traditional market price(TMP) can be derived by subtracting all externalities margins from the right market price(RMP) as indicated below:

$$4)\quad TMP = RMP - \sum_{i=1}^{n} Mi$$

Substituting for RMP we have:

$$5)\quad TMP = \left(P + \sum_{i=1}^{n} Mi\right) - \sum_{i=1}^{n} Mi$$

Canceling terms we get:

$$6)\quad TMP = P$$

Hence the traditional market price(TMP) is P, which is assumed to be externality neutral.

b) The supply and demand scenario.

The structure of the traditional market(TM) as can be seen in point "b" in Figure 2 above can be expressed as follows:

$$7)\quad TM = S1.D \text{ at } Q1$$

The above indicates that the traditional market(TM) acts at the interaction of the traditional supply S1 and the traditional demand D leading to a quantity Q1 that is higher than the right market quantity Q3 and to a price TMP that is lower than the right market price RMP.

c) Implications.

The traditional market should lead to more production and more consumption as it has a lower price(TMP) than the right market price(RMP) since it does not reflect any externality margins as it can be seen in Figure 2 above.

Deriving the corrected market price

a) The nature of the price.

The corrected market price(CMP) is the price that also reflects social margins(SM) and green margins(GM), but it does not includes other margins(OM) as it is intended to make the market social and environmentally friendly at the same time.

The right market price(RMP) in Formula 1 above can be reorganized as follows to extract the corrected market price(CMP):

$$8)\quad RMP = P + (M1 + M2) + (M3 + M4 + \ldots + Mn)$$

If we make margin M1 = SM , make margin M2 = GM and if we assume margin OM = M3 + M4 +…+Mn, then we can rewrite Formula 8 as:

9) RMP = P + (SM + GM) + (OM)

10) RMP = P + SM + GM + OM

Formula 10 above says that the right market price(RMP) is the traditional market price(P) plus the social margin(SM), the green margin(GM) and other margins(OM).

If we make margin OM = 0, then we get the corrected market price(CMP) as this price reflects only social and environmental externality margins, which is stated as follows:

11) CMP = P + SM + GM

Hence, the corrected market price(CMP) is the traditional market price(P) plus the social margin(SM) and the green margin(GM) to reflect social and environmental concerns at the same time.

As the fair trade margin(FTM) is defined as the sum of the social margin(SM) and the green margin(GM), then FTM = SM + GM. We can now restate Formula 11 to express the corrected market price(CMP) in terms of fair trade margins(FTM) as shown below:

12) CMP = P + (SM + GM) = P + FTM, where FTM = SM + GM

Then, we can see that the corrected market price(CMP) is the traditional market price(P) plus the fair trade margin(FTM). In other words, the corrected market price(CMP) is a socially and environmentally friendly price.

b) The supply and demand scenario.

The structure of the corrected market(CoM) as can be seen in point "c" in Figure 3 below, which can be stated as:

13) CoM = S*.D at Q2

The above shows that the corrected market(CoM) works at the intersections of the corrected supply S* and the corrected demand D leading to a quantity Q2 that is higher than the right market quantity Q3 and lower than the traditional market quantity Q1 because the corrected market price(CMP) is lower than the right market price(RMP) and higher than the traditional market price(TMP).

c) Implications.

The corrected market(CoM) should lead to responsible production and consumption as it reflects social and environmental concerns in its price while the perfect market should go towards irresponsible production and consumption with its lower price, which is the reason why quantity Q2 is smaller than quantity Q1 in Figure 3 below.

Summarizing the production and consumption implications in the market

We can use Figure 3 below to point out some relevant implications:

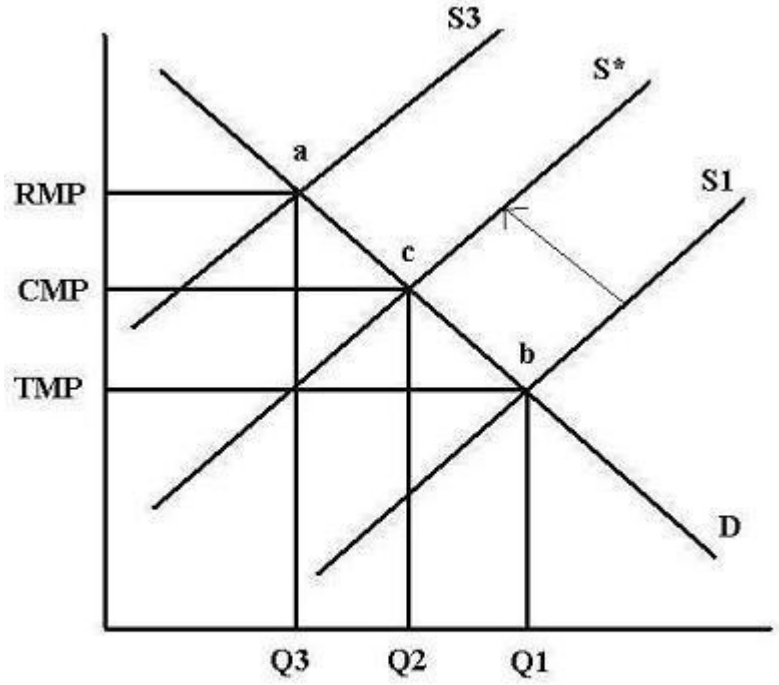

Figure 3 The Corrected Market Price(CMP): It it the traditional market price(TMP) plus the cost of social and environmental externalities.

a) when prices do not reflect the cost of dealing with externalities, as in point "b", we should expect to produce more and consume more, perhaps on the scale of conspicuous attitudes; and therefore, we should expect to see ongoing generation of waste, pollution, ecosystem and social degradation as externalities are left out of economic solutions; b) The more prices reflect the cost of dealing with externalities as in point "c" and "a", we should expect less consumption and less production to take place, perhaps with more focus on basic needs; c) When prices reflect social and environmental externalities, we can create a market where social and environmentally responsible production and consumption can take place; and d) the gap between supply S* and S1 is equal to the fair trade margin(FTM). Hence, adding the fair trade margin(FTM) to the traditional market price(TMP) leads to a corrected market price(CMP) and to more responsible production and consumption as compared to the traditional perfect market(TPM) as it is the case in point "c".

Notice that at point "c" we should expect responsible behavior while at point "b" we should expect irresponsible behavior.

To be clear, S3 is to the left of S* because S3 includes all possible externalities and S* includes only social and environmental externalities.

The clean market

When a market reflects social and environmental responsibilities at the same time, it is a fully clean market as indicated in the operational concepts, and therefore, the corrected market(CoM) is a fully clean market and the corrected market price(CMP) is a fully clean price.

It can be seen in Figure 4 below that there is a fully clean market when socially and environmentally responsible supply(S*) and demand(D*) interact at point "c" leading to a fully clean price, CMP, and a fully clean quantity Q* = Q2.

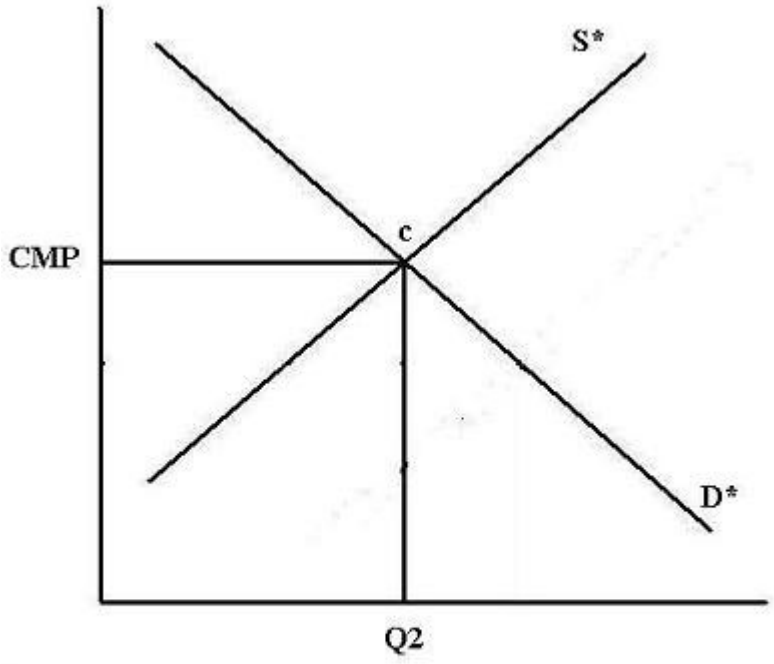

Figure 4 The Clean Market: When environmentally and socially friendly supply(S*) and demand(D*) meet, we have a clean market.

The right agricultural market price(RAMP)

The structure of the right market price(RMP) in Formula 1 above can be restated in terms of the agricultural context as follows:

14) RAMP = AP + AM1 + AM2 + AM3 + AM4…. + AMn

The formula above says that the right agricultural market price(RAMP) is equal to the traditional agricultural price(AP) plus the sum of all agricultural externality margins(∑AMi).

As it can be seen in Figure 5 below, the right agricultural market price(RAMP) is determined by the interception of supply S3 and demand D at the point "a" and leading to quantity Q3.

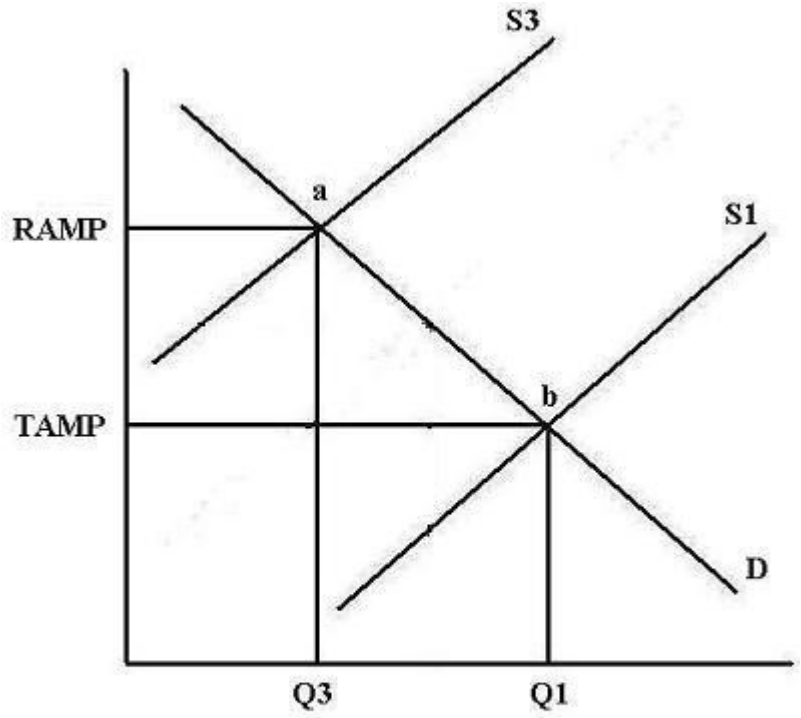

Figure 5 Real and Traditional Agricultural Market Price
RAMP is a higher price, we have a lower demand
TAMP is a lower price so we see a higher demand.

The traditional agricultural market price(TAMP)

The structures of the traditional market price(TMP) in Formula 5 and Formula 6 above can be rewritten in the context of the traditional agricultural market price(TAMP) as shown below:

$$15)\quad TAMP = \left(AP + \sum_{i=1}^{n} AMi\right) - \sum_{i=1}^{n} AMi$$

Canceling terms we get:

$$16)\quad TAMP = AP$$

And therefore, according to Formula 16 the traditional agricultural market price(TAMP) is AP, which is assumed to be externality neutral.

As it can be seen in Figure 5 above, the traditional agricultural market price(TAMP) is determined by the interception of supply S1 and demand D at the point “b” and leading to quantity Q1.

The corrected agricultural market price(CAMP)

The structure of the corrected market price(CMP) shown in Formula 11 and Formula 12 above can be presented in terms of agricultural market concerns as indicated below:

Rewriting Formula 11 in agricultural terms, we get the following:

17) CAMP = AP + ASM + AGM

Formula 17 indicates that the corrected agricultural market price(CAMP) is the traditional agricultural market price(AP) plus the agricultural social margin(ASM) and the agricultural green margin(AGM) to reflect agricultural social and environmental concerns.

Rewriting Formula 12 above in agricultural terms knowing that AFTM = ASM + AGM, we get the following:

18) CAMP = AP + (ASM + AGM) = AP + AFTM, where AFTM = ASM + AGM

From Formula 18 we can see that the corrected agricultural market price(CAMP) is the traditional agricultural market price(AP) plus the agricultural fair trade margin(AFTM). In other words, the corrected agricultural market price(CAMP) is a socially and environmentally responsible agricultural price.

This corrected agricultural market price(CAMP) can be seen at point "c" in Figure 6 below.

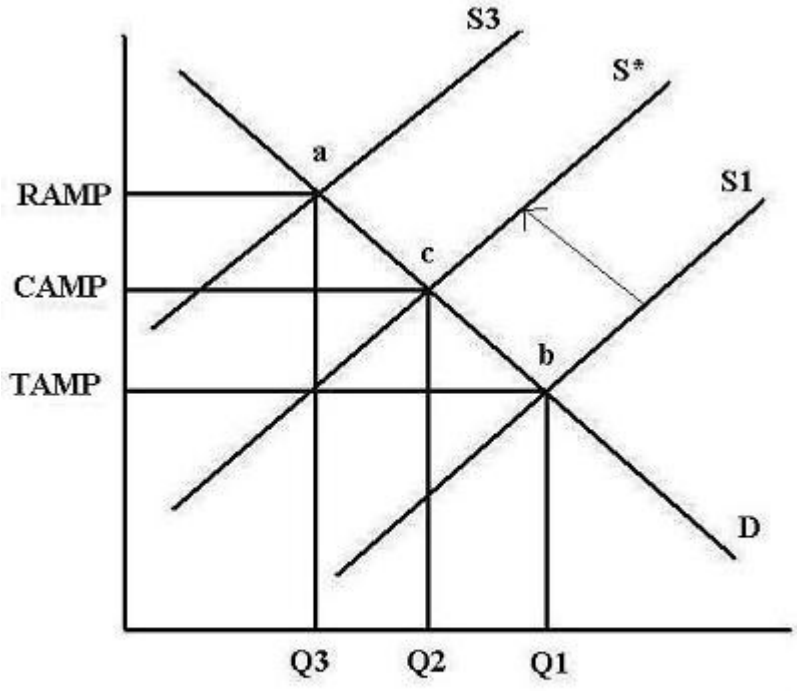

Figure 6 The Corrected Agricultural Market Price: It is the traditional agricultural market price(TAMP) plus the fair agricultural trade margin(AFTM).

Production and consumption implications in the agricultural market

From Figure 6 above we can extract the following implications: a) when agricultural prices(AP) do not reflect the cost of dealing with externalities, as in point "b", we should expect to produce more and consume more, perhaps on the scale of conspicuous attitudes; and therefore, we should expect to see ongoing generation of waste, pollution, ecosystem and social degradation as externalities are left out of economic solutions; b) The more agricultural prices reflect the cost of dealing with externalities, we should expect less consumption and less production to take place, perhaps with more focus on basic needs; c) When agricultural prices reflect social and environmental externalities, we can create an agricultural market where social and environmentally responsible production and consumption can take place; and d) the gap between supply S* and S1 is equal to the agricultural fair trade margin(AFTM). Hence, adding the agricultural fair trade margin(AFTM) to the traditional agricultural market price(AP) leads to a corrected agricultural market price(CAMP) and to more responsible production and consumption as compared to the traditional agricultural perfect market(TAM) as shown in point "c".

The clean agricultural market

There is a fully clean agricultural market when the agricultural market meets its social and environmental responsibilities at the same time. So the corrected agricultural market(CAM) is a fully clean market and therefore, the corrected market price(CAMP) is a fully clean price. This is because it is determined at the interception of responsible supply(S*) and responsible demand(D*) as shown in Figure 7 below:

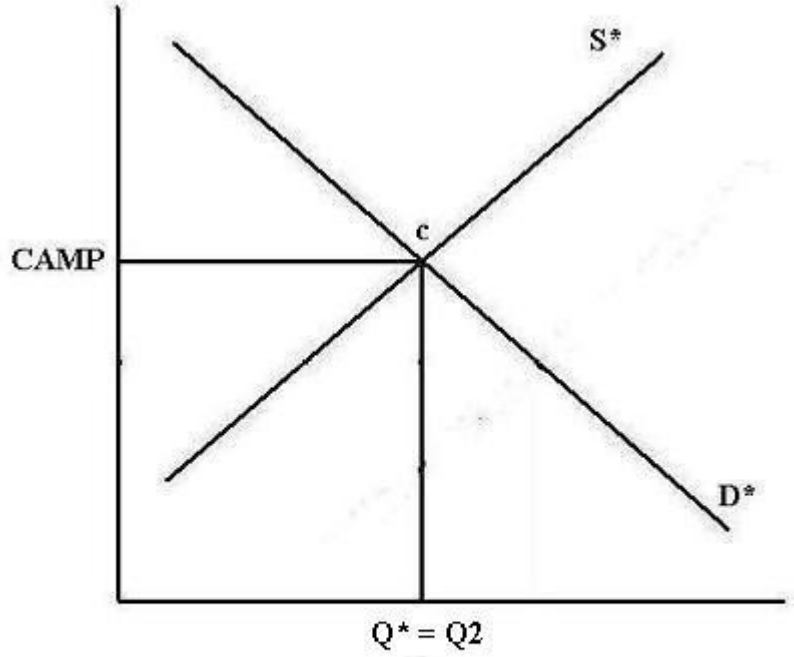

Figure 7 The Clean Agricultural Market: When socially and environmentally friendly agricultural demand(D*) and supply(S*) meet, we have a clean agricultural market.

It can be seen in Figure 7 above that there is a fully clean agricultural market when socially and environmentally responsible supply(S*) and demand(D*) interact at point "c" leading to a fully clean agricultural market price, CAMP, and a fully clean quantity Q* = Q2.

Specific conclusions

Low prices are expected to encourage more production and more consumption; and the lowest price should be expected to lead to overproduction and overconsumptive behavior, a situation that is not socially desirable. By assuming that externalities from development in general, and from agricultural development in particular, are irrelevant and not reflected in traditional market prices, we seem to have created a distorted market and price system that encourages overproduction and overconsumption. In other words, by assuming that demand and supply structures are externality neutral, we have forced them to meet at the lowest price possible in the market leading to ongoing market flooding and waste.

By adding the fair trade margin to the traditional market price or the agricultural fair trade margin to the traditional agricultural market price we can correct markets to induce the interaction of their supplies and demands at a point where responsible production and consumption can take place. In other words, by adding fair trade margins to the traditional price we are creating the conditions that make fair trade issues endogenous economic issues. In a fully clean market, we should expect less production and less consumption than in a fully dirty market as shown above.

General conclusions

If the cost of dealing with development externalities is real, which it is, traditional markets, including agricultural markets have always been distorted as they have never reflected and do not reflect now externality margins in their pricing mechanisms. If traditional markets have always been distorted, then adding fair trade margins to the traditional market price and fair trade agricultural margins to the agricultural market price would be good measures to correct distorted markets and create an environment that induces responsible production and consumption behavior. And doing this would make externality issues in general and fair trade margin issues in particular endogenous economic issues.

In other words, fair trade issues in general, and agricultural fair trade issues in particular fall outside market theory because they are assumed out of the model; and this situation can be corrected as shown in this paper by adding appropriate externality margins to the traditional market price.

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