# THE TRADITIONAL MARKET AND THE SUSTAINABILITY MARKET: IS THE PERFECT MARKET SUSTAINABLE?

Lucio Munoz
Independent Researcher
Vancouver, BC, Canada

## Abstract

*The central question addressed in this paper is Is the Perfect Market Sustainable?. It is shown by means of a simple desirable market model that the perfect market is not sustainable because it is based on maximization principles(production, consumption, and market price). This desirable framework is also used to describe the characteristics of other possible types of traditional markets. Besides the above, it is shown by means of a simple optimal market model that only the perfect sustainability market is sustainable because it is driven by optimal forces (production, consumption, and market price). The optimal market structure is also used to describe the characteristics of other possible types of sustainability markets. Finally, some very important conclusions are provided*

## Introduction

The general goal of this paper is to provide an answer to the question Is the perfect market sustainable?. The paper starts with a short discussion of some of the main sources of development discourse. Then it moves into presenting and contrasting two different simple frameworks, a traditional market framework and an optimal market framework. The information generated is then used to provide an answer to the question posted above and other relevant conclusions.

***International Journal of Economic Development***,
3(4), 2001.

## Sources of Development Discourse

There are many types of discourse that have underlined in the past, and which are underlying today development dynamics in developed and developing countries. The first type of discourse is the sustained development/sustainability discourse. Here the proponents of traditional one view sustained development models (such as the economic development model) or two views sustained development models(such as the eco-economic development model) portrait development processes as sustainable ones. Economic models aim at sustained economic growth and eco-economic models aim at sustained eco-economic growth. However, sustained growth may not be sustainable, as it is not equitable (Tanzi et al 1999).

The proponents of sustainability models, on the contrary, focus their attention on pointing out why one view or two views development paradigms should not be considered sustainable and on the need to incorporate social, economic, and environmental factors in decision-making processes to achieve sustainable conditions. Here the idea that development management policies must reflect the concerns of all stakeholders is central. For example, Hitchens et al(1999) provide management guidelines for environmental, social, and economic sustainability while Doorman(1999) points out the need to balance different concerns and to achieve an ecological, social, and economical equilibrium.

Based on the above, it can be concluded that sustained outcomes are the result of the ability of dominant components to use the passive capital available to maintain their patterns of growth while sustainable or sustainability outcomes are those coming from the interaction of dominant systems. For example, sustaining eco-economic development requires the ability to use available social capital, which in this model it is assumed to be a passive element in development. Sustainable development outcomes, on the other hand, require the ability to incorporate social capital as an active component of development systems so that its best interest is also reflected in the outcome. Today, the move appears to be from sustained to sustainable systems.

The second type of development discourse is the non-system/system thinking discourse. In this case, practitioners of non-system thinking point out the need to separate reality into pieces and

then analyze these pieces through a process that is additive or linear, and which aims at finding out dominant situations within a sample or between samples. System thinkers, on the other hand, stress the need to study reality within its complexity by means of an analytical process that search for balanced situations within a system or between systems. Non-system development models work within a compartmentalized framework that is based on a maximization path that can be sustained, but that it is not balanced. Sustainability models, on the contrary, operate within an integrated framework that is based on an optimization path that it is sustainable and balanced.

Therefore, additive structures are ideal for representing processes that can be subjected to maximization rules while system structures provide an ideal way to represent processes that lead to optimalities. For example, Valdes(1999) considers the main economic goal to be the maximization of sustainable economic growth while the UN(1998) suggests the need to promote a sustainability framework that integrates economic, social, and environmental issues. Maximization processes are not considered sustainable within a system framework because they only can take place when exploiting other elements of the system. For example, Dobson(1999) observes that the maximization of economic aims is possible, but at the expense of components of the social system. Today, the move appears to be from additive to system thinking.

The third type of development discourse is the efficiency/ equity discourse. The proponents of efficient development are not concern about the inequalities resulting from uneven development outcomes as when there are winners, they contend, there must be losers. Hence, there is a view that markets have nothing to do with who wins or who loses(Dore and Mount 1999). The supporters of equity issues believe that efficient development must address and optimize inequalities. In other words, efficient development must be made equitable to be sustainable. In the case of the welfare state, Hessel et al(1999) indicate that government regulation is required to deal with equity/ efficiency related issues. Today, the move appears to be from a pure efficiency world to a world that balances efficiency and equity issues.

The fourth type of development discourse comes from the scientific/non-scientific knowledge discourse. Scientists believe that

the basis for development must be scientific and reflect a match between theory and practice. Because of this, they usually see traditional knowledge and its growth as either irrelevant or as second-class knowledge. For scientists, especially western scientist, scientific tools and paradigms should be able to solve current development problems locally and globally. Non-scientists, on the other hand, believe that non-scientific knowledge and tools have a true value, and that scientific methods are usually not consistent with their local realities. In other words, for non-scientist, specially traditional knowledge holders or those who consider non-traditional methods of research as appropriate tools of learning and action, scientific methods have either limited or no value in their world. The existence of these two contradicting views of development approaches has usually put holders of scientific and non-scientific views in an antagonistic move. Today, the world is moving toward a position where scientific and non-scientific knowledge is combined to produce better development results. Now, the full participation of scientist and non-scientist is being encouraged in all areas of development, including in the area of foreign aid. For example, local participation in the formulation and implementation of major projects is seen now as a very important factor as this is believed to lead to more accountable aid programs(Feeney 1998).

And the fifth type of development discourse is the global/local development discourse. The globalization of development activities is aimed at creating production and marketing environments for products and services that bypass traditional country barriers to development. The means by which globalization is being implemented is called free trade. The success of both the process of globalization and of its driver free trade depend on several factors, and one of the most important factors is the quantity and quality of capital available, specially man-made capital. Hence, developed countries should be expected to do better in global free trade than developing countries as they have far better capital positions. However, we should expect unsustainable development situations in all countries during the process of globalization and free trade adjustments, and perhaps at the end, if internal and external inequalities persist. This is because the stability of both the process of globalization and free trade depends ultimately on the final distributive outcome: if global and local inequalities worsen still more, we are bound for a more unsustainable future, economically, socially, and environmentally in the years ahead.

Therefore, all developing countries and developed countries are bound to experience unequal globalization pressures internally and externally given unbalanced levels of resources available within and between regions and countries. For example, Gwynne and Kay(1999) points out that globalization is producing increased dependency and vulnerability in Chile, specifically, and in Latin America, in general, to rapidly changing global economic dynamics. Leisink(1999) indicates that globalization is affecting labour relations in European countries. Therefore, there is a need to implement globalization and free trade in such a way so as to produce outcomes that are likely to be the most acceptable for humanity. Doorman(1999) indicates that the solution to global development is to achieve equitable development, not the maximization of the efficiency of economic growth. One way of addressing the concerns with free trade and globalization mentioned above appears to be the recent push for fair trade and globalization, which to me is simply a push to achieve free trade and globalization adjusted to fully account for social and environmental externalities.

## The Need to Solve Those Sources of Discourse

As long as there is discourse, there is instability, which usually promotes unsustainable forms of development that are short term in nature. Unfortunately, all the above forms of discourse persisted during the period of pure economy based market development that officially ended in 1987 with the publication of the Bruntland Report(WCED 1987); and are persisting under today's eco-economic based market development model. In order to address and perhaps solve these sources of unsustainable development, we need to understand whether or not we can develop a model that brings traditional development theory closer to the optimization path.

## Specific Goals of the Paper

This paper has three specific goals. The first goal is to trace in simple terms the origin of the traditional market theory, and its main characteristics. The second goal is to show in simple terms the origin of sustainability market theory, and its main characteristics. And third, to use the above information to show that the perfect market is not sustainable, and that the perfect sustainability market is optimal.

## The Origin of the Traditional Market

The origin of the traditional market can be traced by means of a very simple desirable market model, stated below:

M = L + P ; Where: M = desirable market
m = undesirable market
L = desirable lifestyle
l = undesirable lifestyle
P = desirable production unit
p = undesirable production unit

The above market model(M) indicates that there are different types of markets depending on whether or not the lifestyles(L) and producers(P) within this market are desirable or not. To maintain the simplicity of the framework, a desirable lifestyle simply means here a way of life that allows you to buy and consume more/what ever you want. An undesirable lifestyle, on the other hand, is a way of existence that does not allow you to buy and consume much/neither the basic things you need. In other words, a desirable lifestyle is an affluent one and an undesirable lifestyle is one in poverty. A desirable production unit here is the one that delivers goods and services at low/the lowest cost possible while an undesirable production units has high/the highest production costs. In other words, a desirable production unit is efficient and the undesirable one is inefficient.

Below, the four possible types of traditional markets are described in detail.

## The Undesirable Market(m1 = lp )

In this market, lifestyles are undesirable(l) and producers are very inefficient(p), which leads to a total dysfunctional market. Notice that these market characteristics are the ones usually found in the markets of extremely poor developing countries. Here, there are no direct or clear advocates for market intervention. And therefore, full subsistence conditions based on basic production and consumption are the rule.

## The Producer Dominated Market(M2 = lP )

In these markets, producers are very efficient(P) while lifestyles are undesirable(l). Since lifestyles are unable to absorb the efficient production patterns of producers, there is a market failure resulting from excess supply. Hence, this is an excess supply market. Notice that under the traditional economic development model, most development may have taken place within this type of producer dominated market as it aims at maximizing efficient economic growth. Notice that here, efficient growth is sustained at the expense of undesirable lifestyles. Here the advocates for market intervention in the demand side are those concerned with the protection of undesirable lifestyles and the advocates for no-intervention in the supply side are those trying to maximize sustained efficiency. Therefore, this is an unequal market where producer's power dominates social goals, as they are not responsive to lifestyle's pressures.

## The Consumer Dominated Market(M3 = Lp )

In this market, lifestyles are desirable(L) and producers are very inefficient(p). Since inefficient production is not able to catch up with the excess demand caused by the desirable lifestyles in this market, there is an excess demand induced market failure, and therefore, this is an excess demand market. Notice that under today's development patterns, some development choices appear to be channeled under this consumer dominated market since desirable lifestyle power is seen as an efficient mean to induce changes in the inefficiency choices of producers. This market allows for the possibility of maximizing sustained desirable lifestyle growth at the expense of inefficient producers. Here the advocates of market interventions in the production side are those concerned with the protection of inefficient producers and the advocates of non-intervention in the demand side are those concerns with maximizing desirable lifestyles. Hence, this is an unbalanced market where lifestyle's power dictates production decisions, as producers are very responsive to lifestyle's pressures.

## The Perfect Market(M4 = LP )

In this market, both lifestyles are desirable(L) and production units are efficient(P). Here since desirable lifestyles match the

efficiency of producers, the market is cleared. Therefore, in the perfect market, the demand induced by desirable lifestyles(L) is met by the supply provided by efficient producers(P). Under this market, incentives and regulations that aim at maximizing and sustaining desirable lifestyles and efficient producers at the same time are sought and aggressively promoted. Hence, the above means that growth in desirable lifestyles(L) and in production(P) at the same time is possible, and that this growth can be sustained and maximized. Here, desirable lifestyles will advocate for market intervention in the supply side, but no intervention in the demand side. Efficient producers, on the contrary, will advocate for intervention in the demand side, but no intervention in the supply side. Overall, the free interaction of these two opposing advocates underlines the dynamics of this market. Therefore, this market has the ingredients necessary for perfect competition and full-blown free trade as it is being practiced today. Notice that in the traditional perfect market, there are always true winners and true losers and that the necessary and sufficient condition for the existence of this market is the presence of desirable lifestyles and efficient producers at the same time. In other words, in the perfect market, there is a balance between desirable lifestyles and efficient production, but this balance is not optimal.

## The Basis for the Traditional Market Propositions

Hence, model M4 = LP provides the basis for the most commonly accepted propositions relevant to traditional markets: perfect competition within lifestyles, within producers, and between lifestyles and producers; consumption/production efficiency; market equilibrium equating supply and demand; sustained growth; and market clearing price at the point where demand meets supply. However, notice that the traditional market theory or propositions mentioned above do not provide or suggest a solution to the sources of development discourse mentioned in the introduction as they reflect the aims to maximize consumption, production, and market price; not to optimize them.

## The Origin of the Sustainability Market

The origins of the sustainability market can be traced by means of the following simple optimal market model:

$$M^* = L^* + P^* ;$$

Where:

| | |
|---|---|
| $M^*$ = optimal market | $m^*$ = non-optimal market |
| $L^*$ = optimal lifestyle | $l^*$ = non-optimal lifestyle |
| $P^*$ = optimal producer | $p^*$ = non-optimal producer |

The above optimal market model($M^*$) suggests that there are several types of sustainability markets depending on whether or not there are optimal lifestyles($L^*$) and/or optimal producers($P^*$) in this market. The possible types of sustainability markets are described below.

## The Unsustainable Market($m^* = l^*p^*$)

According to the optimal market model($M^*$) above, there is an unsustainable market($m^*$) when we have non-optimal lifestyles($l^*$) and non-optimal producers($p^*$) at the same time. Notice that here the term non-optimal includes desirable and undesirable outcomes as none of them comes from/follow optimized processes. Under this market, perfect competition would lead to the maximization of negative development impacts: a drive of lifestyles and producers to move from less desirable lifestyle positions and from the less efficient production positions to the most desirable lifestyles and to the most efficient production unit status possible,respectively, would take place. Here, no clear advocates for optimal lifestyles and optimal producers exist. Hence, existing incentives and regulations permit the maximization of desirable lifestyles and efficient producers. And therefore, those members of the market with less desirable lifestyles and those most inefficient producers will suffer, which is a similar situation underlying perfect market theory. Hence, the lack of optimality in the market leads to unsustainability of this market

according the perfect market sustainability model. In other words, the perfect market is not sustainable because it lacks of both lifestyle and production optimality at the same time.

## Producer Dominated Sustainability Market (M2* = l*P* )

This is one type of partial sustainability, where lifestyles are non-optimal(l*) and production units are producing at optimal levels(P*). This type of market does not currently exist, as the producer's production functions do not yet reflect optimal processes. However, if this market existed, competition among lifestyles for a smaller supply and a higher price would lead to a market failure by providing producers an incentive to move away from the optimal path and by pricing out types of lifestyles that can not compete in this market. Notice that when production is optimal(P*) perfect competition would work against less desirable lifestyles and lead to a market failure. Moreover, notice that non-optimal lifestyles are a necessary condition for a producer dominated sustainability market to exist; and that production optimality is a necessary, but not sufficient condition for the perfect sustainability market to exist. In this market, intervention would address for example inequalities that will result when optimal production is distributed among non-optimal lifestyles. The above suggests, at least in theory, that a movement from a traditional producer dominated market to a producer dominated sustainability market could be more socially painful unless social goals are clearly stated, implemented, and protected.

## The Consumer Dominated Sustainability Market (M3* = L*p*)

This is another type of partial sustainability. However, here lifestyles are optimal(L*), but producers are not optimal(p*). Again, this type of market not yet exists, as lifestyles, desirable and undesirable, are not optimal. However, if this market existed, competition between producers for a higher supply and a lower price would lead to a market failure providing lifestyles an incentive to move away from their optimal path, and by pricing out types of producers that can not compete in this market. Notice that when lifestyles are optimal(L*), perfect competition would work against the most inefficient producers and would lead to a market failure. It

needs to be highlighted too that non-optimal production is a necessary condition for consumer dominated sustainability markets to exist; and that optimal lifestyles are necessary, but not sufficient for the creation of perfect sustainability markets. In this market, intervention will be directed for example at addressing inequalities resulting from the distribution of the optimal demand between efficient and inefficient producers. The above suggests, at least in theory, that a movement from a traditional consumer dominated market to a consumer dominated sustainability market could be more producer unfriendly unless production goals are clearly stated, allocated, and protected.

## The Perfect Sustainability Market(M4* = L*P* )

In this market, both lifestyles are optimal(L*) and producers are optimal(P*). In this case, since optimal lifestyles match optimal producers, the market is also cleared. Hence, in the perfect sustainability market the demand induced by optimal lifestyles(L*) is met by the supply provided by optimal producers(P*). This means that growth in optimal lifestyles and in optimal production units is possible, and it would be self-sustainable. Here, optimal lifestyles would advocate for intervention in the supply side, but not on the demand side. Optimal producers would advocate for intervention in the demand side, but not on the supply side. The free interaction of these two opposing forces underlines the dynamics of the perfect sustainability market. Hence, this market has the ingredients for perfect cooperation and full blown and accountable free trade(perfect fair trade), but this type of market has not yet been developed, and hence, it is not being practiced today. Notice that in the perfect sustainability market, there are not true losers and that the necessary and sufficient condition for this market to exist is the presence of optimal lifestyles and optimal producers at the same time. In other words, in the perfect sustainability market, there is a balance between optimal lifestyles and optimal producers and hence, this balance is optimal.

## The Basis for the Sustainability Market Propositions

Therefore, the model M4* = L*P* provides the basis for the most important propositions relevant to the perfect sustainability market: full cooperation within lifestyles, within producers, and between

lifestyles and producers; consumption/ production balanced efficiency; optimal market equilibrium equating supply and demand; optimal growth; and market clearing optimal price at the point where demand meets supply. Hence, notice that the sustainability market theory or propositions mentioned above provide or suggest a solution to the sources of development discourse mentioned in the introduction as they reflect the aims to optimize consumption, production, and market price, not to maximize them.

## Optimizing the Traditional Perfect Market

The traditional perfect market can be optimized as follows:

M4 = LP

* *
(M4) = (LP)

* **
M4 = LP

M4* = L*P* = The perfect sustainability market

The above suggests that the perfect sustainability market can be derived by optimizing the interaction of lifestyles and producers in the traditional perfect market.

## Conclusions

Several important conclusions can be drawn from the simple presentation above, but the three most important are listed. First, there are several types of traditional markets according to the traditional desirable market model(M). However, none of them is sustainable because they aim in one way or another at the maximization of consumption, production, and market price, not at their optimization. Hence, the traditional perfect market is not sustainable because it is aimed at maximizing sustained growth, which it is not an optimal process. Second, there are several types of sustainability markets possible according to the optimal market model(M*). In this case, only one sustainability model is sustainable, which is called the perfect sustainability model because it is the only one that aims at optimizing consumption, production, and market

price, not at maximizing them. Therefore, the perfect sustainability market is optimal and self-sustainable. And third, the perfect sustainability market can be derived through optimizing the traditional perfect market model as shown above.

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## Biographical Sketch

Lucio Munoz
Independent Researcher
#5-5760 Hampton Place
Vancouver, BC., Canada. V6T-2G1
munoz@interchange.ubc.ca; www.interchange.ubc.ca/munoz
munoz1@sprint.ca