

Sustainability thoughts 149: An overview of perfect market variability based on component dominance and externality neutrality assumptions

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Abstract: It can be said that a perfect market under externality neutrality assumptions is the one where a dominant component rules. For example, the perfect traditional market under externality neutrality assumptions is the one where the dominant economy component rules. However, there are many other perfect market structures possible beside the perfect traditional market such as the perfect social market or the perfect economic market and so on. Yet not much seems to be written about perfect market variability under externality neutrality assumptions to facilitate a view beyond perfect market thinking and competition and perfect market externality neutrality assumptions. And this raises the question, how perfect market variability based on component dominance and externality neutrality assumptions looks like? Among the goals of this paper is to provide an overview of perfect market variability aimed at providing an answer to that question.

Keywords: Sustainability, perfect markets, imperfect markets, dominant paradigm, perfect market variability, the perfect economy market, the perfect social market, the perfect environmental market, the perfect red market, the perfect green market, the perfect socio-environmental market, the perfect sustainability market, authoritarianism based market, externality, externality neutrality assumptions.

Introduction

a) Perfect markets under externality neutrality assumptions

It can be said that a perfect market(M) under externality neutrality assumptions is the one where a dominant component rules so it can be stated as follows:

1) $M = X$, where X = the dominant component

Expression 1 above tells us that component X drives the growth of the perfect market M. And since it works under externality neutrality assumptions the perfect market has no limits for growth. The different market illusions associated with unlimited growth that come into play when markets operate under externality neutrality assumptions have been recently pointed out (Muñoz 2020).

b) The case of the perfect economic market under externality neutrality assumptions

For example, the perfect traditional market(TM) under externality neutrality assumptions is the one where the dominant economy component(B) rules so the model can be expressed as indicated below:

2) $TM = B$

Expression 2 above says that the economy component(B) drives the growth of the perfect traditional market TM. And since it works under externality neutrality assumptions the perfect traditional market has no limits for growth. The ideas of the economy driving growth and no limits to growth are central to Adam Smith's world view on the perfect traditional market(Smith 1776).

Notice that if we make $M = TM$, then $X = B$, then the perfect traditional market TM meets the definition of perfect market M for the economy,

c) Perfect market variability under externality neutrality assumptions

However, there are many other perfect market structures possible beside the perfect traditional market such as the perfect social market or the perfect eco-economic market and so on, which can be generalized as follows:

3) $M_i = X_i$, where X_i = dominant component “i”

Expression 3 above indicates that dominant component X_i drives the growth of the perfect market M_i . And since it works under externality neutrality assumptions the perfect market M_i has no limits for growth. All possible market structures based on component dominance together with their price structures have been recently shared (Muñoz 2016).

Yet despite the existence of perfect market structures other than perfect traditional market structures not much seems to be written about perfect market variability under externality neutrality assumptions to facilitate a view beyond perfect market thinking and competition and perfect market externality neutrality assumptions. And this raises the question, how perfect market variability based on component dominance and externality neutrality assumptions looks like? Among the goals of this paper is to provide an overview of perfect market variability aimed at providing an answer to this question.

Objectives

a) To introduce a perfect market variability model based on component dominance when there are externality neutrality assumptions at work; and b) To use this model to provide an overview of all possible perfect markets possible besides the perfect economy market.

Methodology

1) The terminology used in this paper is introduced; 2) some operational concepts are given; 3) The dominant component perfect market variability model under externality neutrality assumptions is stated assuming social(A), environmental(C), and economic(B) components; 4) The variability of perfect markets from no dominant component, one dominant component, two dominant component, and all dominant component perfect markets and their implication are highlighted; and 5) Some food for thoughts and relevant conclusions are shared.

Terminology

X = Dominant component X	x = Passive component X
B = Dominant economy	b = Passive economy
A = Dominant society	a = Passive society
C = Dominant environment	c = Passive environment
M = Perfect market M	[M] = Imperfect market M
M_i = Perfect market M_i	[M_i] = Imperfect market M_i
{N} = Market N under authoritarianism	{N} = Market N under liberalism
TM = The perfect economy market	DS = The perfect social market
ENM = The perfect environmental market	GM = The perfect green market
RM = The perfect red market	SENM = The perfect socio-environmental market
S = The perfect sustainability market	[M] = Market N under equality, but not freedom
{ M } = Market N under freedom, but not equality	M = Market under equality and freedom

Operational concepts and types of perfect market structures

a) Operational concepts

- 1) **Perfect market**, a market where there is dominant component equality and freedom
- 2) **Imperfect market**, a market where there is component equality, but not freedom
- 3) **Perfect paradigm shift**, a shift from a perfect market to a higher level perfect market

- 4) **Paradigm management**, *the handling of cost externalization through externality management*
- 5) **Paradigm flip**, *a flip to the inverse opposite paradigm*
- 6) **Perfect paradigm flip**, *a flip to the perfect inverse opposite paradigm*
- 7) **Imperfect paradigm flip**, *a flip to the imperfect inverse opposite paradigm*
- 8) **Authoritarian market**, *an imperfect market*
- 9) **Sustainability market**, *the perfect market where there is full co-component equality and freedom*
- 10) **Externality management market**, *the market where there is partial co-component equality, but no freedom.*
- 11) **Imperfect paradigm shift**, *a shift from a perfect market to a higher level imperfect market*

b) Type of perfect market structures

Given the dummy market models with two components $M_1 = Xy$ and $M_2 = xY$, the following can be said about different market structures:

1) Perfect markets

There is dominant component equality and freedom

$M_1 = Xy = \mathbf{A}$ dominant component \mathbf{X} perfect market

$M_2 = xY = \mathbf{A}$ dominant component \mathbf{Y} perfect market

$M_3 = XY = \mathbf{A}$ co-dominant component \mathbf{XY} perfect market

You can appreciate that when there is both component equality and freedom at the same time you have a true perfect market.

2) Imperfect markets type 1

There is dominant component equality, but no freedom, they are dictatorship based markets

$[M_1] = [X]y = \mathbf{A}$ dominant component \mathbf{X} imperfect market type 1

$[M_2] = x[Y] = \mathbf{A}$ dominant component \mathbf{Y} imperfect market type 1

$[M_3] = [XY] = \mathbf{A}$ co-dominant component \mathbf{XY} imperfect market type 1

You can see that when there is only component equality you have an imperfect market type 1.

3) Imperfect markets type 2

There is dominant component freedom, but no equality, they are liberalism based markets

$\{M_1\} = \{X\}y = \mathbf{A}$ dominant component \mathbf{X} imperfect market type 2

$\{M_2\} = x\{Y\} = \mathbf{A}$ dominant component \mathbf{Y} imperfect market type 2

$\{M_3\} = \{XY\} = \mathbf{A}$ co-dominant component \mathbf{XY} imperfect market type 2

Notice that when there is only component freedom again you have an imperfect market type 2.

The dominant component perfect market variability model under externality neutrality assumptions

If we assume a perfect market world(M_i) where three dominant component, society(A), economy(B), and environment(C) interact under externality neutrality assumption, then its variability model can be stated as follows:

$$M_i = A + B + C$$

The expression above simply says that there is a perfect market M_i when the dominant society(A) or the dominant economy(B) or the dominant environment(C) or any combination of them is present; and therefore there is no perfect market M_i if all components are not present in dominant form at the same time.

i) The all passive component market

When there is no dominant component present in M_i above, then we have a full passive component market M_0 with the structure below:

$$M_0 = abc$$

The expression above says that when there is no component dominance we have a fully unsustainable market(FUM) as $M_0 = FUM = abc$.

ii) The one dominant component perfect markets

a) The case of the perfect social market

When only the society(A) is in dominant form in M_i we have the perfect social market or the perfect deep socialism market M_1 , which has the structure below:

$$M_1 = A$$

The expression above indicates that perfect market M_1 is a perfect social market or deep social market(DS) since $M_1 = DS = A$ as the society(A) is dominant; and as there is an externality neutrality assumption it has not limits to growth.

b) The case of the perfect economy market

When only the economy(B) is in dominant form in M_i we have the perfect economy market or the perfect capitalism market M_2 , which has the structure that follows:

$$M_2 = B$$

The expression above tells us that perfect market M_2 is a perfect economy market or perfect traditional market(TM) since $M_2 = TM = B$ as the economy(B) is dominant; and as there is an externality neutrality assumption it has not limits to growth.

c) The case of the perfect environmental market

When only the environment(C) is in dominant form in M_i we have the perfect environmental market or the deep environmental market M_3 , which has the following structure:

$$M_3 = C$$

The expression above indicates that perfect market M_3 is a perfect environmental market(ENM) since $M_3 = ENM = C$ as the environment(C) is dominant; and as there is an externality neutrality assumption it has not limits to growth.

iii) The two dominant component perfect markets

a) The case of the perfect socio-economic market or red market

When both the society(A) and the economy(B) are in dominant form in M_i we have the perfect socio-economic market or perfect socially friendly market or perfect red market(RM) M_4 , with the structure below:

$$M_4 = AB$$

The expression above shows that perfect market M_4 is a perfect socio-economic market(RM) since $M_4 = RM = AB$ as the society(A) and the economy(B) are dominant; and as there is an externality neutrality assumption it has not limits to growth.

b) The case of the perfect eco-economic market or green market

When both the economy(B) and the environment(C) are in dominant form in M_i we have the perfect eco-economic market or perfect environmentally friendly market or perfect green market(GM) M_5 , with the structure as follows:

$$M_5 = BC$$

The expression above indicates that perfect market M_5 is a perfect eco-economic market or green market(GM) since $M_5 = GM = BC$ as the environment(C) and the economy(B) are dominant; and as there is an externality neutrality assumption it has not limits to growth.

c) The case of the perfect socio-environmental market or yellow market

When both the society(A) and the environment(C) are in dominant form in M_i we have the perfect socio-environmental market or perfect environmentally friendly social market(SENM) M_6 , with the structure as follows:

$$M_6 = AC$$

The expression above says that perfect market M_6 is a perfect socio-environmental market(SENM) since $M_6 = SENM = AC$ as the society(A) and the environment(C) are dominant; and as there is an externality neutrality assumption it has not limits to growth.

iv) The all dominant component perfect market

When there is full dominant component presence in M_i above, then we have the perfect sustainability market(S) M_7 , which is a full dominance perfect market and with structure as indicated below:

$$M_7 = ABC$$

The expression above tells us that when all components are present in dominant form at the same time there is a full dominance perfect market called the sustainability market(S) so that $S = M_7 = ABC$. Notice that in the perfect sustainability market S you do not need externality neutrality assumptions as there are no externalities as it is driven by optimization as long as optimization holds there are no limits to growth.

Overview of perfect market structure variability

All the types of markets derived from model M_i above together with their names, their component dominance structure, and their corresponding imperfect market structures type 1 and type 2 are highlighted in Table 1 below:

Table 1

Overview				
Mi Market type	Perfect market name	Dominant market structure	Imperfect type 1 market structure	imperfect type 2 market structure
M_0	FUM	abc	[abc]	{abc}
M_1	DS	A	[A]	{A}
M_2	TM	B	[B]	{B}
M_3	ENM	C	[C]	{C}
M_4	RM	AB	[AB]	{AB}
M_5	GM	BC	[BC]	{BC}
M_6	SENM	AC	[AC]	{AC}

M7	S	ABC	[ABC]	{ABC}
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We can see the corresponding name to each possible market derived from model M_i in Table 1 above together with their corresponding perfect dominant structure as well as their corresponding structures as if they were imperfect markets type 1 in terms of dominant component without freedom and if they were imperfect market type 2 in terms of dominant component without equality. The 8 possible markets are: the fully unsustainable market ($FUM = M_0 = abc$), the perfect social market ($DS = M_1 = A$), the perfect economy market ($TM = M_2 = B$), the perfect environmental market ($ENM = M_3 = C$), the perfect socio-economic market or socially friendly market ($RM = M_4 = AB$), the perfect eco-economic market or environmentally friendly market ($GM = M_5 = BC$), the perfect socio-environmental market or environmentally friendly social market ($SENM = M_6 = AC$), and the perfect sustainability market ($S = M_7 = ABC$). Some of those perfect market structures and/or imperfect market structures are well-known, but others are not well known. For example, the perfect environmental market structure and its imperfect structure or similar socio-environmental structures are not well-known. Among the well-known perfect market structures are for example: 1) the perfect green market structure is $GM = M_5 = BC$, but its imperfect market structure type 1 $[GM] = [M_5] = [BC]$ highlighting the lack of co-dominant component freedom or its imperfect market structure type 2 $\{GM\} = \{M_5\} = \{BC\}$ showing the lack of co-dominant component equality may not yet be well-known; and 2) The structure of the perfect economy market is $TM = M_2 = B$, and its perhaps not very well-known imperfect market structure type 1 based on lack of dominant component freedom is $[TM] = [M_2] = [B]$ as well as its imperfect market structure type 2 based on lack of dominant component equality is $\{TM\} = \{M_2\} = \{B\}$. Moreover, notice that in the last two columns in Table 1 above the imperfect structure of the fully unsustainable market and of the perfect sustainability market are shared as lacking component freedom $[abc]$ and $[ABC]$ and lacking component equality $\{abc\}$ and $\{ABC\}$ respectively. However, a fully unsustainable market under dictatorship is still a fully unsustainable market so $[abc] = \{abc\} \rightarrow abc$; and the perfect sustainability market under dictatorship or component inequality is a situation where sooner or later full sustainability (S) would prevail as $[ABC] = \{ABC\} \rightarrow ABC$.

Food for thoughts

1) Can perfect markets exist without equality? I think Yes, what do you think?; 2) Was the red socialism market an imperfect social market? I think Yes, what do you think?; and 3) Can a true perfect market exists without equality? I think No, what do you think?

Conclusions

First, it was highlighted that the perfect market variability model M_i under externality neutrality assumptions leads to 7 different types of perfect markets and to one fully unsustainable market. Second, it was indicated in the overview that these market structures are consistent to known market structures as dominant based perfect markets such as for example the traditional market ($TM = B$) or the green market ($GM = BC$). And third, it was pointed out that knowing the structure of each perfect market allows us to express their imperfect structure in terms of lack of dominant component freedom or dominant component equality, which creates imperfect market structures that are consistent with known imperfect markets like the economic authoritarianism market ($[TM] = [B]$) where there is economic component equality but no freedom or the red socialism market ($[DS] = [A]$), where there is social equality without freedom. It also leads to other imperfect market structures like $\{TM\} = \{B\}$ or $\{DS\} = \{A\}$, where there is dominant component freedom, but not equality, which are not well-known. In general, it was shown how perfect market variability based on component dominance and externality neutrality assumptions looks like through the use of the perfect market model M_i .

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