Karl Marx Vrs Sustainability Markets: Who Would Have Won this Cold War? Would the World of Karl Marx Have Existed Then?

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Abstract

We know that the clash pure capitalism vrs red socialism was won by pure capitalism as red socialism collapsed under extreme capitalism deficits. In other words, the world of Adam Smith prevailed and the world of Karl Marx collapsed. Now imaging for a moment that Adam Smith would have proposed a model based on sustainability markets instead of traditional markets, who would have won the paradigm clash then? Would the world of Karl Marx have existed then? Among the goals of this paper are to provide answers to these two questions using qualitative comparative tools.

Key words

Adam Smith, Karl Marx, Paradigm Death, Paradigm shift, Paradigm Mergers, Sustainability Gaps, Sustainability Markets, Traditional Market, Red Man, Red Economic Man, Economic Man, sustainability Man, Paradigm Clash, Soviet Bloc, capitalism, socialism.

Introduction

a) The world of Karl Marx(K)

In the world of Karl Marx only society(A) matters. The formal economy(b) and the environment(c) do not matter and they exist only for the use of the red man. This world is summarized in Figure 1 below:
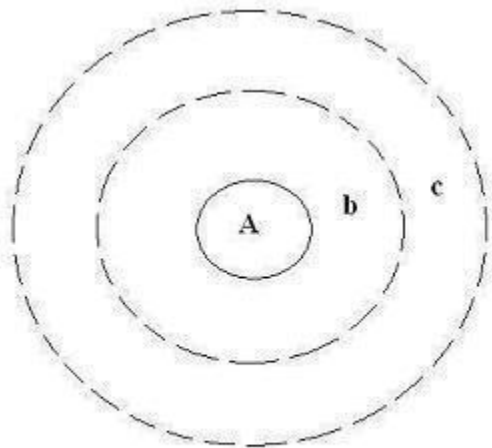
Figure 1 The world of Karl Marx
         K = Abc

Figure 1 above indicates a) that the red socialist model of Karl Marx needs only the presence of society(A) systems in active form as shown by the capital letters in the case of society(A) and its continuous line circle; and b) that the model needs the presence of the economic(b) and environmental(c) systems in passive form at the same time as indicated by the lower case letters and their broken line circles.

In other words, under Karl Marx's model, red socialism, there is a full externality assumption as both the economy(b) and the environment(c) are left out of the model and therefore, social development(A) can take place outside of economic and environmental considerations; and let someone else deal with the cost of those consequences. In here, collective decision-making is key to ensure environmental and economic exclusion and social welfare maximization.

Analytically the model described in Figure 1 above can be indicated as follows as only the society(A) matters:

K = Abc

The model above says that in the Karl Marx's model(K) the necessary and sufficient condition for development to take place is the presence of society(A) only in active form. It is a social monopoly model. Here red agents are making collective rational decisions following the behavior that maximizes social welfare. Notice that here the red man is aiming at maximizing social welfare through direct means. It can be said that the world of Karl Marx started in 1848 when the communist manifesto was first published(Marx and Angels 1848) and ended formally in 1991 together with red socialism when soviet leaders did not allow even controlled capitalism within their system(Muñoz 2010).

b) The world of Adam Smith(T)

In the world of Adam Smith only the economy(B) matters as society(a) and environment(c) are there only for the use of the economic man. This world is summarized in Figure 2 below:
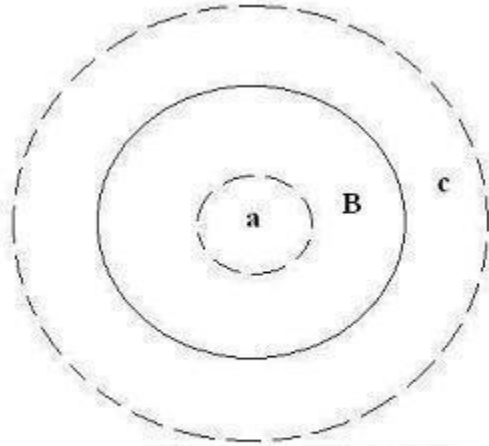

Figure 2   The world of Adam Smith
T = aBc

Figure 2 above says a) that the traditional market of Adam Smith requires only the presence of economic(B) systems in active form as shown by the capital letters in the case of the economy(B) and its continuous line circle; and b) that the model needs the presence of social(a) and environmental(c) systems in passive form at the same time as indicated by the lower case letter in the case of society(a) and environment(c) and their broken line circles.

In other words, under Adam Smith's model, the traditional market, there is a full externality assumption too as both society(a) and environment(b) are left out of the model and therefore, economic development(B) can take place outside of social and environmental considerations; and let someone else deal with the cost of those consequences. So in here independent decision making is needed to ensure full social and environmental exclusion and economic maximization.

Analytically the model shown in Figure 2 above can be stated as follows as only the economy(B) is relevant:

T = aBc

The model above says that in the traditional market of Adam Smith(T) the necessary and sufficient condition for development to take place is the presence of the economy(B) only in active form. It is an economic monopoly model. Here economic agents are making independent rational decisions following the behavior that maximizes profits. See that here economic agents are aiming at maximizing social welfare through indirect means, if it is good for them it is good for society. The structure and the full externality assumption nature of the traditional market of Adam Smith have been described in detail recently(Muñoz 2012).

c) The world of sustainability markets

Muñoz(2015) stressed the fact that Adam Smith missed the opportunity to state the nature and structure of sustainability market in his time. If Adam Smith would had proposed a sustainability market structure(S) instead of the economy only run model(T) described above, he would have proposed a market structure as indicated below in Figure 3:
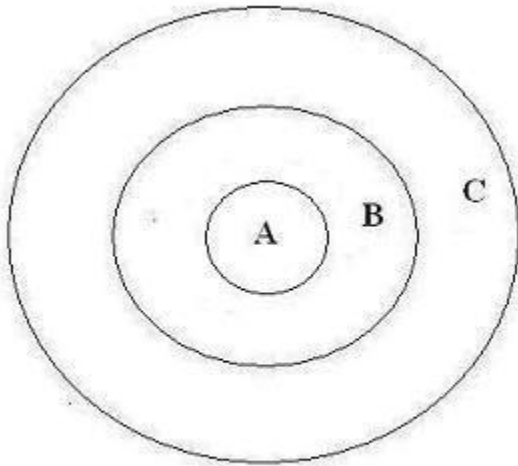

Figure 3 The sustainability market(S): A full inclusion market

Figure 3 above summarizes the structure of sustainability markets(S) that could have been proposed by Adam Smith. This Figure 3 indicates that Adam Smith would have proposed then i) a model that needs the presence of society(A), the economy(B) and the environment(C) in active form at the same time as shown by the capital letters and their continuous line circles; and ii) a model that has no components in passive form; and therefore, it is a fully inclusive model.

In other words, Adam Smith would have proposed a sustainability market(S) where there is no externality neutrality assumption as only socially and environmentally friendly economic development can take place. In this sustainability model(S), fully codependent decision-making is key to ensure social and environmental inclusion and socio-eco-economic welfare optimization.

Analytically the socio-eco-capitalism or socially and environmentally friendly capitalism mode(S) described in Figure 3 above can be indicated as follows as only the society(A), the economy(B) and the environment(C) matter:

S = ABC

The model above says that in the sustainability market model(S) the necessary and sufficient condition for development to take place is the presence of society(A), the economy(B), and the environment(C) at the same time in active form. It is a society-economy-environment partnership based model. In this model sustainability agent or the sustainability man is making fully codependent rational decisions following the behavior that optimizes socio-economic-environmental welfare. The structure of sustainability markets has been recently highlighted in

detail in terms of corrected green markets(Muñoz 2011), in terms of fully corrected traditional markets(Muñoz 2016a), and in terms of perfect sustainability markets(Muñoz 2016b). It seems that the interest of the business community in sustainability thinking has evolved as follows: a) first the global business community in moving towards sustainability markets and prices (WBCSD 2001), b) this interest later gravitated towards using corporate social responsibility approaches(WBCSD 2009), c) Next the interest went towards green market sustainability(IISA and IIED 2014), and to the business opportunities this creates now for the private sector(CFI 2016) and in the future(SA 2016).

Paradigm clashes are real events

Paradigm death, mergers and shifts are facts in development paradigm evolution in which sustainability gap dynamics lead that paradigm evolution(Muñoz 2016c). For example, the ideas of two great thinkers are now dead(Muñoz 2016d), first economic sustainability gap dynamics brought the death of red socialism in 1991 during the old cold war clash allowing the shift towards socially friendly capitalism in former socialist countries; and then later environmental sustainability gap dynamics brought the death of pure capitalism when the traditional market was corrected to reflect environmental concerns partially fulfilling the 1987 Bruntland Commission request for both social and environmental inclusion(WCED 1987) leading to the 2012 shift from traditional markets to green markets(UNCSD 2012a; UNCSD 2012b). Now imaging for a moment that Adam Smith would have proposed a model based on sustainability markets instead of traditional markets, who would have won the paradigm clash then? Would the world of Karl Marx have existed then? Among the goals of this paper are to provide answers to these two questions using qualitative comparative tools.

The goals of this paper

a) To point out what the paradigm clash structure would have looked like in a clash Karl Marx vrs sustainability markets in terms of sustainability gaps; b) To stress the implications of advocating such a sustainability market view on red socialism and bare capitalism; c) To highlight who would have won such a clash and the type of world that would have come out of it and why.

The methodology

First, the qualitative comparative terminology used in this paper is shared. Second, merging rules and some operational concepts are provided. Third the structure of the paradigm clash Karl Marx vrs sustainability markets is given highlighting its sustainability gaps. Fourth, implications of this paradigm clash in terms of the collapse of the Karl Marx's model and the prevailing sustainability market system, a world not suited for red socialism are shared. And finally, some food for thoughts and conclusions are given.

The qualitative comparative terminology

A = Active social system   a) Passive social system

B = Active economic system   b) Passive economic system

C = Active environmental system   c) Passive environmental system

T = Adam Smith's model   S = Sustainability market

K = Karl Marx's model   SG = Sustainability gap

SSG = Social sustainability gap   ECSG= Economic sustainability gap

ESG = Environmental sustainability gap   SI = Sustainability inversegram

KSEM=Karl Marx's socio-econ model   PMR = Paradigm merging rules

SEM = Socio-economic model   T = Traditional market

M = Model   Mi = Model "i"

X = System X   Xi = System Xi

Paradigm merging rules(PMR)

      If "A" and "B" are dominant characteristics; and "a" and "b" are their dominated or passive counter parts, the following is expected:

i) Merging under dominant-dominant interactions

      Under these conditions, dominant or active state prevails as indicated:

(AA) → A   (BB) → B   (AA) (BB) = (AB)(AB) → AB

ii) Merging under dominated-dominated interactions

      Under these conditions, the dominated or passive form prevails as shown:

(aa) → a   (bb) → b   (aa) (bb) = (ab)(ab) → ab

iii) Merging under dominant-dominated interactions and win-win solutions

Under these conditions, the dominant or active system prevails as the system merge as shown below:

(Aa) → A   (bB) → B   (Aa) (bB) = (AB)(ab) → AB

iv) Merging under dominant-dominated interactions and no win-win solutions

Under these conditions, the dominated or passive system prevails and the system collapses as shown below:

(Aa) → a   (bB) → b   (Aa) (bB) = (AB)(ab) → ab

Operational concepts

i) Sustainability gaps expectations under no win-win situation

Let's assume we have two components, A = society and B = economy, and so the three sustainability models possible based on their combination are: M1 = Ab, M2 = aB; and M3 =AB = S. Their position in the sustainability inversegram(SI) can be indicated as in Figure 3 below:
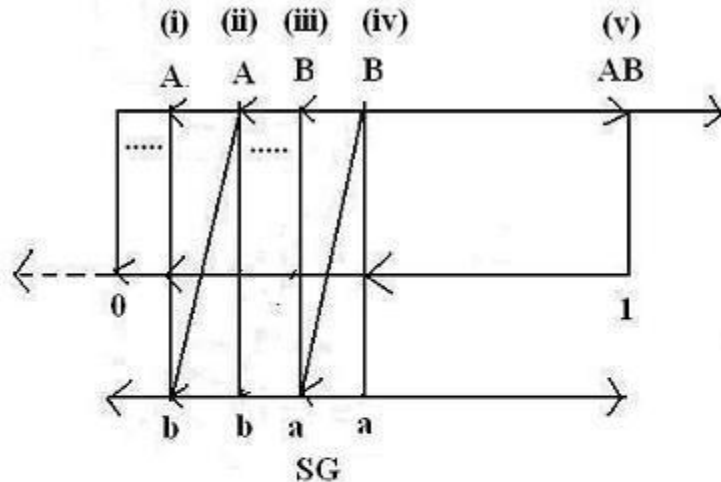

Figure 3   Paradigm death and shift expectations
M1 = Ab   M2 = aB   M3 = AB
Under no win-win situation model M1 and M2 will expand and shift to the left until they are brought down by their associated sustainability gaps and then they will take the form of M3 = AB.

In Figure 3 above, Model M1=Ab is at point (ii), model M2=aB is at point (iv); and model M3=AB = S is at point (v).   Model M1 has an economic sustainability gap(ECSG=b),

model M2 has a social sustainability gap(SSG=a), and model M3 has no sustainability gaps(SG =1).

It can be said based on the inversegram(SI) in Figure 3 above that if there are no win-win situations either model M1 or model M2 or both at the same time would collapse in the long term and lose their original structure as they and their sustainability gaps expand and shift constantly to the left and towards full unsustainability in Figure 3 above. And this can be used for the following generalization:

Expectation: *When there are dominant-dominated system interactions and there are no win-win situations or merging solutions there are sustainability gaps or sustainability debits/deficits, which sooner or later will lead to paradigm death and paradigm shift.*

a) The case of paradigm M1 = Ab

We can see that it has an economic sustainability gap(ECSG = b), so it can be expressed as follows:

M1 = A(ECSG)

And as system A in M1 continues to expand and expand to the left in Figure 3 above such as from point (ii) to point (i) and so on as there are no win-win situations, then its economic sustainability gap tends to zero(ECSG = b ---$\rightarrow$0) and the system collapses and loses its original structure so we have the following expectation:

M1 = {A[(ECSG = b ---$\rightarrow$0)]}---$\rightarrow$0 = M1 collapses losing its original structure and then M1 shifts towards sustainability(M1---$\rightarrow$S = M3). So now the sustainability inversegram(SI) in Figure 3 would have only two models M2 and M3.

The paradigm shift after collapse towards new paradigm has the following structure:

M1 = Ab ----$\rightarrow$AB = S = M3 as M1 closes its economic sustainability gap(ECSG = b---$\rightarrow$B)

b) The case of paradigm M2= aB

We can see that it has a social sustainability gap(SSG = a), so it can be expressed as follows:

M2 = (SSG)B

And as system B in model M2 continues to expand and expand to the left in Figure 3 above such as from point (iv) to point (iii) and so on as there are no win-win situations, then its social sustainability gap tends to zero(SSG = a ---$\rightarrow$0) and the system collapses and loses its original structure so we have the following expectation:

M2 = {[(SSG = a ---$\rightarrow$0)]B}---$\rightarrow$0 = M2 collapses losing its original structure and then M2 shifts towards sustainability(M2--$\rightarrow$S = M3). Now the sustainability inversegram(SI) in Figure 3 above would have only two models M1 and M3.

The paradigm shift after collapse towards new paradigm has the following structure:

M2 = aB ----$\rightarrow$AB = S = M3 as M2 closes its social sustainability gap(SSG = a---$\rightarrow$A)

c) The clash of M1M2

The clash of two competing and extremely opposite paradigms gives the feeling of so called cold wars, which turn out to be a clash between the state of competing sustainability gaps under no win-win situations, as indicated below system to system:

M1.M2 = (Ab) (aB) = A(ECSG)(SSG)B

Notice that the above expression is the same as the following as the system M as a whole:

M = M1.M2 = (Ab)(aB) = (Aa)(bB) = [A(SSG)][(ECSG)B]

The clash above is a clash between the economic sustainability gap(ECSG) in M1 and the social sustainability gap(SSG) in M2. In this type of conflict we can have two situations: i) If a paradigm in conflict sticks to no win-win situations to the end shifting left in Figure 3 above and accumulating deficits to the end then that paradigm will collapse and then shift towards sustainability as the dominant components will prevail(S = M3); and the other paradigm will keep its structure intact after surviving the clash; and ii) if the paradigm in conflict suddenly see win-win alternatives it will die or lose its original structure and merge into a sustainability model as the dominant components will prevail(S = M3); and the other paradigm will keep its structure intact after surviving the clash.

Expectation: *In modern economies when a conflict for dominance between economic sustainability gaps(ECSG) in one system and social sustainability gaps(SSG) in another system arises the system with the economic sustainability gap and accumulated capitalism deficit will not be able to buy time to avoid collapse under no win-win situations. And therefore, the paradigm with the economic sustainability gap will collapse and lose its original structure and shift toward sustainability(S = M3); and the paradigm without the economic sustainability gap will retain its structure and survive the clash. In other words, in modern economies egalitarian but economically poor systems will lose a clash against very unequal, but rich systems as capitalism credits can buy time to wait for the storm to pass when facing paradigm clashes.*

Therefore in the clash M1M2 described above, M1 = {A[ECSG = b--$\rightarrow$0]}---$\rightarrow$0 will collapse as originally structured as its ECSG = b---$\rightarrow$0 and then M1 will shift towards sustainability(M1---$\rightarrow$ S = M3); and M2 will retain its structure, so the sustainability inversegram(SI) in Figure 3 above would have only two models M2 and M3.

The shift of model M1 after the collapse takes the following form:

M1 = Ab--→AB = S = M3 as M1 closes its economic sustainability gap(ECSG = b--→B) after the collapse.

d) The clash of M1M3

The structure of this clash is below:

M1.M3 = (Ab) (AB)

Since M1 has an economic sustainability gap(ECSG = b), the clash can be expressed as follows system to system:

M1M3 = [A(ECSG)](AB)

The above says this is a clash between a system with one sustainability gap and another with no sustainability gaps.

And the above expression is equivalent to the one shown below from the whole system M point of view:

M1M3 = (Ab)(AB) = (AA)(bB) = A[(ECSG)B]

Expectation: *In modern economies when a conflict for dominance between systems with sustainability gaps(SG) and systems without sustainability gaps takes place and there are no win-win situations, the system with sustainability gaps, in this case economic sustainability gaps(ECSG) will collapse and lose its original structure and then merge into a sustainability model. Only sustainability markets will prevail.*

Therefore in the clash M1M3 described above, M1= {A[ECSG = b--→0]}---→0 will collapse as originally structured as its ECSG ---→0 and then M1 will shift towards sustainability(M1---→ S = M3); and M3 will retain its structure, so the sustainability inversegram(SI) in Figure 3 above would have only two models M2 and M3.

The shift of model M1 after the collapse takes the following form:

M1 = Ab--→AB = S = M3 as M1 closes its economic sustainability gap(ECSG = b--→B) after the collapse.

e) The clash M2M3

The structure of this clash is below:

M2.M3 = (aB) (AB)

Since M2 has a social economic sustainability gap(SSG = a), the clash can be expressed as follows system to system:

M2M3 = [(SSG)(B](AB)

The above says this is a clash between a system with one sustainability gap and another with no sustainability gaps.

The expression above is equivalent to the one indicated below from the whole system M point of view:

M = M2M3 = (aB)(AB) = (aA)(BB) = [(SSG)A]B

Expectation: *In modern economies when a conflict for dominance between systems with sustainability gaps(SG) and systems without sustainability gaps takes place and there are no win-win situations, the system with sustainability gaps, in this case social sustainability gaps(SSG) will collapse and lose its original structure and then merge into a sustainability model. Only sustainability markets will prevail.*

Therefore in the clash M2M3 described above, M2= {[SSG = a--$\rightarrow$0]B}---$\rightarrow$0 will collapse as originally structured as its SSG ---$\rightarrow$0 and then M2 will shift towards sustainability(M2---$\rightarrow$ S = M3); and M3 will retain its structure, so the sustainability inversegram(SI) in Figure 3 above would have only two models M1 and M3.

The shift of model M2 after the collapse takes the following form:

M2 = aB---$\rightarrow$AB = S = M3 as M2 closes its social sustainability gap(SSG = a--$\rightarrow$A) after the collapse.

ii) Sustainability gaps expectations under win-win situations
Let's assume again we have two components, A = society and B = economy, and so the tree sustainability models possible based on the combination of them are: M1 = Ab and M2 = aB and M3 =AB = S, then their positions in the sustainability inversegram can be indicated as shown in Figure 4 below:
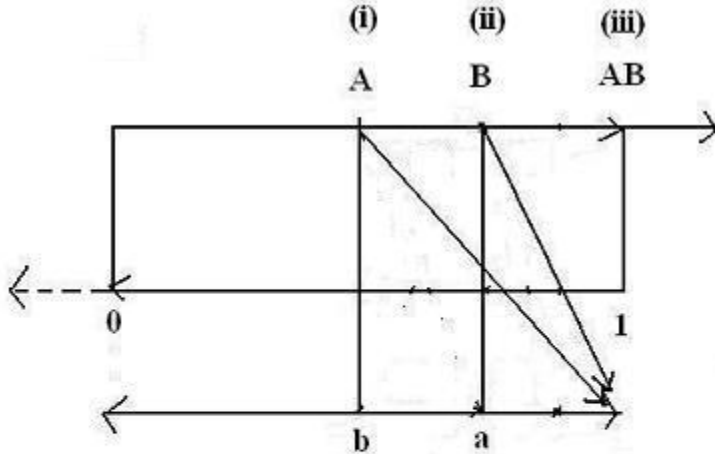
Figure 4   Paradigm merger and shift expectations
$M1 = Ab$ $M2 = aB$ $M3 = AB$
If there are win-win situations model M1 and
model M2 will close their respective
sustainability gaps and die and shift to right
to take the form of $M3 = AB$.

Based on Figure 4 above if there are win-win situations model M1 or model M2 or both at the same time would close their sustainability gaps and shift to the right towards full sustainability at point (iii). And this leads to the following generalization:

Expectation: *When there are dominant-dominated system interactions and there are win-win situations paradigm mergers and shift take place leaving no sustainability gaps.*

a) The case of paradigm M1= Ab

We can see that it has an economic sustainability gap(ECSG = b), so it can be expressed as follows:

M1 = Ab = A(ECSG)

And as model M1 sees win-win situations in closing its economic sustainability gap(ECSG = b ---$\rightarrow$1) to shift towards full sustainability we have the following expectation:

M1 = {A[(ECSG---$\rightarrow$1)]}---$\rightarrow$1 = M1 as originally structured dies and merge and then M1 shifts towards sustainability(M1 = Ab--$\rightarrow$S = AB= M3). So now the sustainability inversegram(SI) in Figure 4 above would have only two models M2 and M3 as now M1 = M3.

The shift of model M1 under win-win situations takes the following form:

M1 = Ab--$\rightarrow$AB = S = M3 as M1 closes its economic sustainability gap(ECSG = b--$\rightarrow$B) to move to a full sustainability structure.

b) The case of paradigm M2 = aB

   We can see that it has a social sustainability gap(SSG = a), so it can be expressed as follows:

M2 = aB = (SSG)B

   And as M2 sees win-win situations in closing its social sustainability gap(SSG = a ---$\rightarrow$1) and move to full sustainability we have the following expectation:

M2 = {[(SSG ---$\rightarrow$1)] B}---$\rightarrow$1 = M2 as originally structured dies and merge and then M2 shifts towards sustainability(M2 = aB--$\rightarrow$S = AB= M3).   So now the sustainability inversegram(SI) in Figure 4 above would have only two models M1 and M3 as now M2 = M3

   The shift of model M2 under win-win situations takes the following form:

M2 = aB--$\rightarrow$AB = S = M3 as Me closes its social sustainability gap(SSG = a--$\rightarrow$A) to move to a full sustainability structure.

c) The case of the clash of M1M2

   The clash of opposing paradigms has the following structure:

M = M1.M2 = (Ab)(aB) = A(ECSG)(SSG)B

M = M1.M2 = (Aa)(bB) = [A(SSG)][(ECSG)B]

   Under win-win situation both models M1 and M2 have an incentive to close their respective sustainability gaps at once and merge and then both shift towards sustainability as the one who does not do it will be left behind.

Expectation: *In modern economies when a conflict for dominance between economic sustainability gaps(ECSG) in one system and social sustainability gaps(SSG) in another system arises and there are win-win situations both systems will have an incentive to close their respective sustainability gaps and merge and shift structure towards sustainability. The paradigm with the economic sustainability gap will close it and shift toward sustainability(S = M3); and the paradigm with the social sustainability gap will close it and shift towards sustainability too. In other words, in modern economies egalitarian but poor systems in clash against very unequal, but rich systems will merge and shift toward sustainability if there are win-win situations.*

   In the case of M1, as the ECSG--$\rightarrow$1 then M1 will shift to the right in Figure 4 to the full sustainability position closing its economic sustainability gap(ECSG = b---$\rightarrow$B) and the following is true:

M1 = Ab--$\rightarrow$ AB

In the case of M2 as SSG--$\rightarrow$1, then M2 will shift to the right too in Figure 4 above to the full sustainability position closing its social sustainability gap(SSG = a---$\rightarrow$A) and the following is true:

M2 = aB---$\rightarrow$AB.

So after closing the sustainability gaps the merger has the following form since M1 = M2 = AB

M = M1.M2 = (AB)(AB) = AB = S

And notice that under win-win situations the following expectations is also true:

M = M1.M2 = (Ab)(aB) ----$\rightarrow$(AB)(AB) = AB = S

M = M1.M2 = (Aa)(bB) ---$\rightarrow$(AA)(BB) = AB = S

d) The case of the clash of M1M3

The clash between systems with and without sustainability gaps has the following structure:

M = M1M3 = (Ab)(AB) = [A(ECSG)](AB)

M = M1M3 = (AA)(bB) = A[(ECSG)B]

When there are win-win situations system with sustainability gaps will merge to join systems with no sustainability gaps.

Expectation: *In modern economies when a conflict for dominance between systems with sustainability gaps(SG) and systems without sustainability gaps takes place and there are win-win situations, the system with sustainability gaps will die and then merge into a sustainability model. Only sustainability markets will prevail.*

Therefore in the clash M1M3 described above, M1= {A[ECSG = b--$\rightarrow$1]}---$\rightarrow$1 will die as originally structured as its ECSG ---$\rightarrow$1 and then M1 will merge and shift towards sustainability(M1 = Ab---$\rightarrow$ AB = S =M3); and M3 will retain its structure, so the sustainability inversegram in Figure 4 above would have only two models M2 and M3.

The merging of these paradigms after the death of M1 takes the following form since now M1= AB after closing its economic sustainability gap(ECSG = b---$\rightarrow$B):

M = M1M3 = (AB)(AB) = AB = S

Notice that under win-win situations the following expectations are also true:

M = M1M3 = (Ab)(AB) -----→(AB)(AB) = AB = S

M = M1M3 = (AA)(bB) -----→(AA)(BB) = AB = S

e) The case of the clash of M2M3

The clash between systems with and without sustainability gaps has the following structure:

M = M2M3 = (aB)(AB) = [(SSG)B](AB)

M = M2M3 = (aA)(BB) = [(SSG)A]B

When there are win-win situations system with sustainability gaps will merge to join systems with no sustainability gaps.

Expectation: *In modern economies when a conflict for dominance between systems with sustainability gaps(SG) and systems without sustainability gaps takes place and there are win-win situations, the system with sustainability gaps will die and then merge into a sustainability model. Only sustainability markets will prevail.*

Therefore in the clash M2M3 described above, M2 = {[(SSG = a ---→1)]B}---→1 will die as originally structure as its SSG ---→1 and then M2 will merge and shift towards sustainability(M2 = aB---→ S = AB =M3); and M3 will retain its structure, so the sustainability inversegram in Figure 4 above would have only two models M1 and M3.

The merging of these paradigms after the death of M2 takes the following form since now M2= AB after closing its social sustainability gap(SSG = a---→A):

M = M2M3 = (AB)(AB) = AB = S

Notice that the following expectations also hold true under win-win situations:

M = M2M3 = (aB)(AB) ------→(AB)(AB) = AB = S

M = M2M3 = (aA)(BB) ------→(AA)(BB) = AB = S

iii) General paradigm death and paradigm shift expectations
When there are sustainability gaps(SG) and there are no win-win situations or win-win situations are avoided for too long, there will be paradigm deaths and paradigm shifts. And this is because as sustainability gaps tend to zero (SG--→0) as unsustainability tends to full unsustainability the whole system will collapse and new paradigms will re-align around the dominant components to form new paradigm shifts combinations:

a) Paradigm death and the case of deep paradigms:

i) Pure economic / capitalistic models will collapse under social sustainability gaps(SSG) and/or environmental sustainability gaps(ESG) as they cannot live accumulating social and/or environmental deficits forever.

ii) Pure social / red socialist models will collapse under economic sustainability gaps(ECSG) and/or environmental sustainability gaps(ESG) as they cannot live accumulating economic and/or environmental deficits forever.

iii) Pure environment / green models will collapse under social sustainability gaps(SSG) and/or economic sustainability gaps(ECSG) as they cannot live accumulating social and/or economic deficits forever.

b) Paradigm death and the case of partnership based paradigms

i) Socio-environmental / socio-ecology models will collapse under economic sustainability gaps(ECSG) as they cannot live accumulating economic deficits forever.

ii) Socio-economic / socio-capitalist models will collapse under environmental sustainability gaps(ESG) as they cannot live accumulating environmental deficits forever.

iii) Eco-economic / green capitalist models will collapse under social sustainability gaps(SSG) as they cannot live accumulating social deficits forever.

iv) Generalizing paradigm mergers and paradigm shift expectations
When there are sustainability gaps(SG) and there are win-win situations there will be paradigm mergers and paradigm shifts. And this is because as sustainability gaps tend to one (SG--$\rightarrow$1) then unsustainability tends to full sustainability and whole system merger will take place; and new paradigms will re-align around the dominant components of the merging paradigms to form new paradigm shift combinations:

a) Paradigm merger and the case of deep paradigms:

i) Pure economic / capitalistic models and pure social /red socialist models under win-win situations will merge to form socio-capitalist models after closing associated social sustainability gaps(SSG) and economic sustainability gaps(ECSG).

ii) Pure social / red socialist models and pure environment/green models will merge under win-win situations to form eco-socialist models after closing associated social sustainability gaps(SSG) and environmental sustainability gaps(ESG).

iii) Pure environment / green models and pure economic / capitalist models will merge under win-win situations to form eco-economic models or green market models after closing associated economic sustainability gaps(ECSG) and environmental sustainability gaps(ESG).

iv) In summary: Under win-win situations any two deep paradigms will merge to form a new partnership paradigm after closing associated sustainability gaps.

b) Paradigm merger and the case of partnership based paradigms

i) Socio-environmental / socio-ecology models and socio-economic/socio-capitalist models under win-win situations will merge and form a sustainability market model after closing associated economic sustainability gaps(ECSG) and environmental sustainability gaps(ESG).

ii) Socio-economic / socio-capitalist models and eco-economic / green market models under win-win situations will merge and form a sustainability market model after closing associated social sustainability gaps(SSG) and environmental sustainability gaps(ESG).

iii) Eco-economic / green capitalist models and eco-socialist models will merge under win-win situations to form a sustainability market model after closing associated social sustainability gaps(SSG) and economic sustainability gaps(ECSG).

iv) In summary: Under win-win situation two different partnership paradigms will merge to form a sustainability market model after closing associated sustainability gaps.

The structure of paradigm crash Karl Marx vrs sustainability markets(S)

Based in the introduction since K= Abc and S = ABC, then the structure of the paradigm clash between red socialism(K) and sustainability markets(S) if it would had been stated by Adam Smith would have looked as follows:

K.S = (Abc)(ABC) = (AA)(bB)(cC) = A(bB)(cC)

If we make ECSG = bB and ESG = cC, then the following is true:

K.S = A(ECSG)(ESG)

The expression above shows two important things: a) There are no social sustainability gaps(SSG) affecting the sustainability market, neither social nor economic nor environmental gaps and therefore, Karl Marx would have had a hard time building a social case against sustainability based capitalism; b) the paradigm clash would have been about economic sustainability gaps(ECSG) and environmental sustainability gaps(ESG) at the same time, but both affecting Karl Marx's model only; and c) Adam Smith would have had an easy time making an economic and environmental case against red socialism.
Under no win-win situation when a system with sustainability gaps clashes with another without sustainability gaps the system with the sustainability gap, in this case Karl Marx's model(K= Abc), collapses and shifts towards sustainability markets(K = Abc---→S = ABC) as both the economic sustainability gap and the environmental sustainability gap are closed after the collapse(ECSG = b--→B and ESG = c---→C) according to paradigm death and shift expectations.

The implications of this red socialism and sustainability paradigm clash

Under the conditions above, if Adam Smith had stated sustainability markets(S) in his time probably the world of Karl Marx(K) and red socialism as we know it would not have existed as Karl Marx would have had a hard time making a social case against sustainability markets. And if Karl Marx's world would have still materialized anyway it would have collapsed sooner as you cannot live accumulating economic and environmental sustainability deficits for ever; and it would have been replaced by sustainability markets(S).

In other words the world of Karl Marx and red socialism(K) would have ended faster if it ever would have taken hold if facing sustainability market and we would have been living in a world ruled by sustainability markets(S) before and after its collapse. On the other hand, the traditional market(T) would not have existed if Adam Smith would not have proposed it. In summary, if Adam Smith would have proposed sustainability markets red socialism/Karl Marx's model and the traditional market model, both may not have existed.

The death of Karl Marx's model

The structure of the fall Karl Marx model and red socialism in this case would have looked like as indicated below:

K.S = {A(ECSG--$\rightarrow$0)(ESG---$\rightarrow$ 0)}-$\rightarrow$0 = collapse of K and K.S---$\rightarrow$ABC = S
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                Paradigm death   **Paradigm shift**

As indicated in the operational concepts and rules, when the stability of the sustainability gap tends to zero(SG--$\rightarrow$0) due to no win-win economic and environmental situations the model with that sustainability gap(SG) falls apart or collapses; and a paradigm shift take place where the dominant components prevail as shown below:

Since K= Abc collapses, then ECSG = bB-$\rightarrow$B and the ESG = cC--$\rightarrow$C ; and therefore the following is true for the paradigm shift from the red socialism(K) to sustainability markets(S) after win-win economic and environmental situations are found; and the both sustainability gaps are closed(ECSG = b---$\rightarrow$B and ESG = c--$\rightarrow$C):

K= Abc --$\rightarrow$ABC = S since b---$\rightarrow$B and c--$\rightarrow$C when gaps are closed.

In summary: If Adam Smith would had proposed sustainability market instead of the traditional market then the world of Karl Marx and red socialism if materialized would have collapsed during the clash Karl Marx vrs sustainability markets; and shifted towards sustainability markets or socially and environmentally friendly capitalism. Countries under sustainability markets would have kept their system intact leading to a whole world living under sustainability markets. And pure capitalism would not have existed then as Adam Smith would not have proposed it.

Food for thoughts

Had Adam Smith stated sustainability markets instead of traditional markets, I think:

a) The world of Karl Marx may not have been possible and there would have been then no red socialism as it would have been difficult to build a social case against sustainability markets;

b) Even if Karl Marx's world and red socialism would have still materialized under these sustainability market conditions they would have lost very fast the paradigm clash because of its ongoing accumulation of economic sustainability and environmental sustainability deficits;

c) We would have then been living in a world run by socially and environmentally friendly capitalism before the coming of Karl Marx and after the collapse of his world; and

d) The center of power as we know it today may have shifted to the economic center.

What do you think?

Conclusions

It was pointed out that if Adam Smith would have proposed sustainability markets instead of the traditional market then the clash with Karl Marx's model would have been a clash between economic and environmental sustainability gaps. It was stressed that when a system with a sustainability gaps clashes with a system without sustainability gaps, the system with sustainability gaps, in this case Karl Marx's model collapses and shifts towards sustainability markets. And finally, it was highlighted that under these conditions we would have been living in a world of sustainability markets and red socialism would had not happened as Karl Marx would have been unable to build a social case against sustainability markets, or if it would have happened it would have lost the paradigm clash very fast living under constantly growing economic and environmental sustainability deficits.

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