Adam Smith Vrs Karl Marx: Stating the Structure and Implications of the Paradigm Clash that Led to the Death of Karl Marx's World, to the Fall of the Soviet Bloc, and to the Rise of Socially Friendly Capitalism.

By

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Abstract

Adam Smith and Karl Marx sent the world into a long cold war that culminated in 1991 with the death of Karl Marx's world, with the fall of the Soviet Bloc, and with the rise of socially friendly capitalism in China and in the former soviet republics. From the sustainability point of view the cold war(bare capitalism vrs red socialism) was simply a war between the social sustainability gap in Adam Smith's model and the economic sustainability gap in Karl Marx's model, yet not much is written about the structure of this paradigm clash from the sustainability angle. One of the goals of this paper is to highlight the paradigm clash structure behind the death of Karl Marx's world, the fall of the Soviet Bloc, and the rise of socially friendly capitalism.

Key words

Adam Smith, Karl Marx, Paradigm Death, Paradigm shift, Paradigm Mergers, Sustainability Gaps, Traditional Market, Red Man, Red Economic Man, Economic Man, Paradigm Clash, Soviet Bloc, China, bare capitalism, red socialism, exclusion, maximization, externality neutrality, knowledge gap.

Introduction

a) The world of Adam Smith(T)

i) The nature

Analytically the model of Adam Smith 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.

ii) The consequences

In this market economic agents are making independent rational decisions following the behavior that maximizes profits. See that here economic agents are aiming at maximizing social welfare by indirect means, if it is good for them it is good for society. This is the world of the economic man.

iii) The rise of bare capitalism

Since the industrial revolution until 1987 when the Bruntland Commission criticized it(WCED 1987) creating the conditions for paradigm shift to green markets(UNCSD 2012a; 2012b) Adam Smith's traditional market model(T) has been the body and soul of bare capitalism, a deep economic development model. The structure of Adam Smith's market was recently highlighted and compared to the structure of sustainability markets to point its social and environmental externalities assumptions(Muñoz 2015).

iv) The world of Adam Smith graphically

As indicated above 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, which is summarized in Figure 1 below:

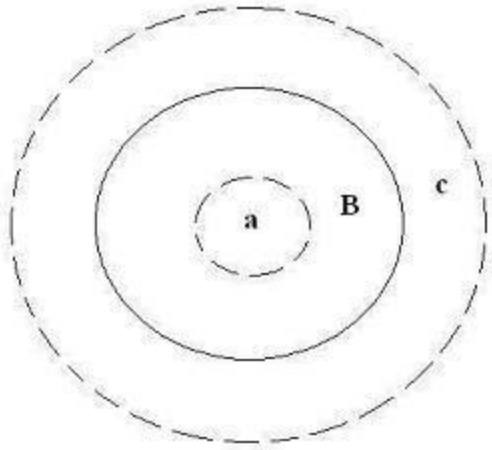

Figure 1 The world of Adam Smith

Figure 1 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 traditional market 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 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 this market individual decision making is needed to ensure full social and environmental exclusion and economic maximization. Adam Smith's market was recently called man-made market I(Muñoz

2012). And it has been recently stressed that Adam Smith's model could have been brought down by social unsustainability or environmental unsustainability or both types of unsustainability at the same time(Muñoz 2016a), but it was only the environmental issue that brought it down in 2012(Muñoz 2016c) when traditional markets shifted towards green markets.

b) The world of Karl Marx(K)

i) The nature

Analytically Karl Marx model 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.

ii) The consequences

In Karl Marx's model 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. This is the world of the red man.

iii) The rise of red socialism

Karl Marx's world became the body and soul of socialist movements all over the world, a deep social development model. It lasted until 1991 when it died with the fall of the soviet bloc under capitalism deficits(Muñoz 2010).

iv) The world of Karl Marx graphically

As mentioned above 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, which is summarized in Figure 2 below:

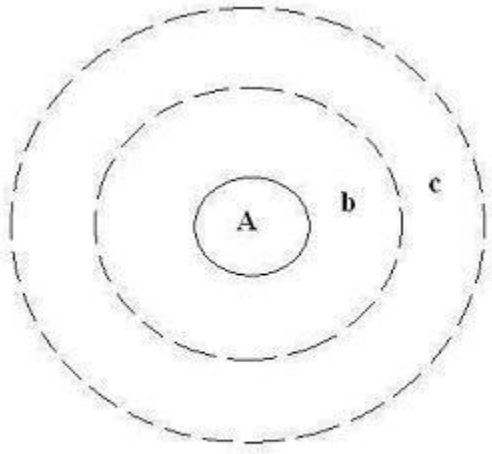

Figure 2 The world of Karl Marx

Figure 2 above indicates a) that the red socialist model of Karl Marx needs only the presence of social(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 too 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 this model, collective decision-making is the key to ensure environmental and economic exclusion and social welfare maximization. It was recently indicated that Karl Marx's model could have been brought down by environmental deficits or economic deficits or both deficits at the same time(Muñoz 2016a), but only economic deficits did it as indicated above.

c) The paradigm clash Adam Smith vrs Karl Marx

The clash between Adam Smith/bare capitalism and Karl Marx/red socialism, two totally exclusive paradigms, exemplifies the classic example of cold war. And this war was essentially a clash between the social sustainability gap in Adam Smith's model and the economic sustainability gap found in Karl Marx's model from the sustainability point of view. And this paradigm clashes are consistent with paradigm death and shift expectations(Muñoz 2016b). However, not much is written about paradigm clashes and the evolution of development paradigms from the sustainability angle to be able to see in simple terms the structure behind this classic paradigm clash and the theoretical and actual implications of this. One of the goals of this paper is to highlight the structure of the paradigm clash that led to the death of Karl Marx model, to the fall of the Soviet Bloc, and to the rise of socially friendly capitalism in China and in the former soviet republics.

The goals of this paper

This paper has five goals: i) To highlight the actual structure of the paradigm clash between Adam Smith's model and Karl Marx's model in terms of sustainability gaps: ii) To stress the implications of this structure in terms of the dilemmas faced by the Soviet leadership and by the capitalistic leadership; iii) To point out how the death of Karl Marx's world, the fall of the soviet bloc, and their paradigm shift towards socially friendly capitalism came about under no win-win socio-economic situations; iv) To indicate how the death of Karl Marx's world and the rise of capitalist China came about under win-win socio-economic situations; and v) to bring to the attention that the paradigm shift from red socialism to socially friendly capitalism has created a socio-economic knowledge gap as there is no red micro-economics or red macro-economics.

The methodology

First, the qualitative comparative terminology used in this paper is shared. Second, some merging rules and operational concepts are provided. Third, the structure of the paradigm clash, capitalism vrs red socialism, is highlighted. Fourth, the dilemmas raised by the

paradigm clash structure under no win-win situations to the soviet leadership and to the leadership of capitalist countries are stressed. Fifth, the process by which the death of Karl Marx's world came about leading to the fall of the soviet block and their paradigm shift towards a socio-economic or socially friendly capitalist model is pointed out. Sixth, how China shifted to socially friendly capitalism after the death of Karl Marx's world under win-win situations is indicated. And finally some food for thoughts and relevant 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

CSEM =China's socio-economy model SEM = Socio-economic model

T = Traditional market M = Model

Mi = Model "i" X = System X

Xi = System Xi SSG = Social sustainability gap

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:

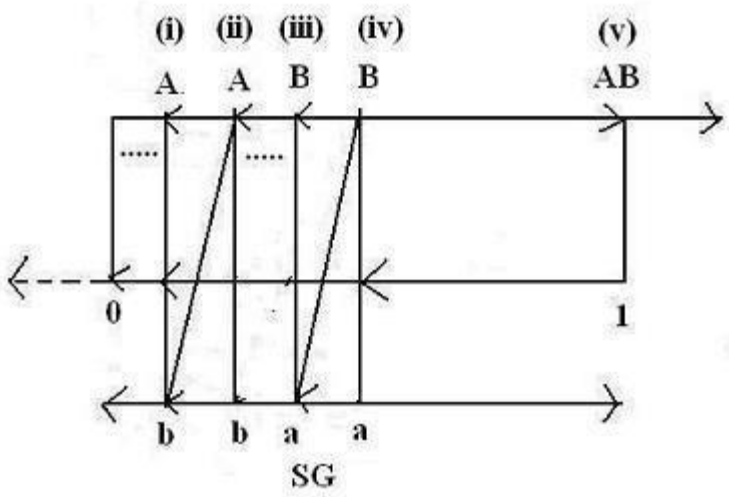

Figure 3 Paradigm death and shift expectations
M1 = Ab M2 = aB M3 = AB
Under no win-win situation model M1 and M2 will expand and shift to the left until they are brought down by their associated sustainability gaps and then they will take the form of M3 = AB.

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 ---→0) and the system collapses and loses its original structure so we have the following expectation:

M1 = A[(ECSG = b ---→0)]---→0 = M1 collapses losing its original structure and then M1 shifts towards sustainability(M1---→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 ----→AB = S = M3 as M1 closes its economic sustainability gap(ECSG = b---→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 ---→0) and the system collapses and loses its original structure so we have the following expectation:

M2 = {[(SSG = a ---→0)]B}---→0 = M2 collapses losing its original structure and then M2 shifts towards sustainability(M2--→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 ----→AB = S = M3 as M2 closes its social sustainability gap(SSG = a---→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--→0]--→0 will collapse as originally structured as its ECSG = b---→0 and then M1 will shift towards sustainability(M1---→ 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--→0]B--→0 will collapse as originally structured as its SSG ---→0 and then M2 will shift towards sustainability(M2---→ 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---→AB = S = M3 as M2 closes its social sustainability gap(SSG = a--→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:

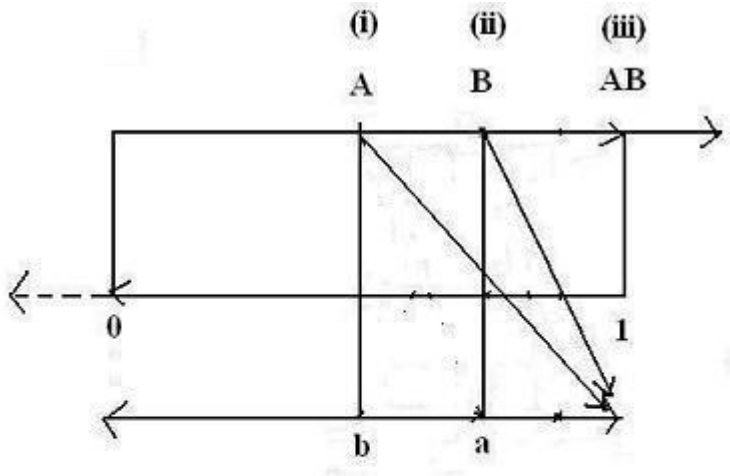

Figure 4 Paradigm merger and shift expectations
M1 = Ab M2 = aB M3 = AB
If there are win-win situations model M1 and model M2 will close their respective sustainability gaps and die and shift to right to take the form of M3 = AB.

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 ---→1) to shift towards full sustainability we have the following expectation:

M1 = A[(ECSG---→1)]--→1 = M1 as originally structured dies and merge and then M1 shifts towards sustainability(M1 = Ab--→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--→AB = S = M3 as M1 closes its economic sustainability gap(ECSG = b--→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 ---→1) and move to full sustainability we have the following expectation:

M2 = [(SSG ---→1)] B---→1 = M2 as originally structured dies and merge and then M2 shifts towards sustainability(M2 = aB--→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--→AB = S = M3 as Me closes its social sustainability gap(SSG = a--→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--→1 then M1 will shift to the right in Figure 4 to the full sustainability position closing its economic sustainability gap(ECSG = b---→B) and the following is true:

M1 = Ab--→ AB

In the case of M2 as SSG--→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---→A) and the following is true:

M2 = aB---→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) ----→(AB)(AB) = AB = S

M = M1.M2 = (Aa)(bB) ----→(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--→1]-→1 will die as originally structured as its ECSG ---→1 and then M1 will merge and shift towards sustainability(M1 = Ab---→ 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---→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--→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 death of Karl Marx's model(K) and its consequences

i) The structure of the paradigm clash between capitalist(T=aBc) and red socialists(K= Abc)

To see the internal structure of the paradigm clash between capitalism(T = aBc) and red socialism(K = Abc) highlighting the cold war we need to contrast these two paradigms as follows to point out the sustainability gaps in confrontation or clash:

T.K = (aBc)(Abc) = (aA)(Bb)(cc)

Since SSG = aA and ECSG = Bb, then we have:

T.K = (aBc)(Abc) = [SSG].[ECSG].c

In other words, the clash between capitalism(T) and red socialism(K) was about a clash between a social sustainability gap(SSG) in the capitalist system(T) and the economic sustainability gap(ECSG) in the red socialist system(K).

ii) The dilemma in the face of the red socialist countries from the clash

The closing of the economic sustainability gap(ECSG) would help them survive, but it goes against their fundamental principle "Society first". If they did not have total capitalism deficits they had they could have waited out the storm, and perhaps they could have won the cold war and avoid paradigm death and paradigm shift. When in confrontation an inclusive society without money it expected to lose against an exclusive society with money in the long-term according to paradigm death and shift expectations.

iii) The dilemma in the face of bare capitalist countries from the clash

The closing of the social sustainability gap(SSG) would help them survive, but it goes against their fundamental principle "Economy first". Since they had capitalism surplus they could afford to wait for the storm to pass and that way they won the cold war and avoid paradigm death and paradigm shift at that time. In modern development systems the system with the sustainability gap is expected to fall when in confrontation with another without that sustainability gap in the long-term according to paradigm death and shift expectations.

iv) The fall of the soviet bloc

The soviet leadership refused to close the economy sustainability gap(ECSG) by allowing privatization in, even in a controlled manner, making the stability of the economic sustainability gap tend to zero(ECSG = b---→0)and this led to the collapse of the soviet bloc, to the death of Karl Marx's model(K); and to the paradigm shift from the red socialism model to the socio-economic model(SEM) as the dominant components remain , a situation that is stated below analytically:

T.K = {[SSG].[ECSG--→0].c}---→ 0 = collapse and T.K---→ABc = SEM

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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--→0) due to no win-win socio-economic 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 SSG = Aa-→A and ECSG = Bb--→B ; and therefore the following is true for the paradigm shift from the Karl Marx's model(K) to the socio-economic model(SEM) after win-win socio-economic situations are found; and the economic sustainability gap is closed(ECSG = b---→B):

K= Abc --→ABc = SEM since b---→B when gap is closed.

The death of the Karl Marx's model(K) allowed for a paradigm shift towards the socio-economic model(SEM) within the states that were members of the Soviet Union after it collapsed allowing for a different form of capitalism, socially friendly capitalism.

In other words, merging the model T and the model K under win-win socio-economic situation by rearranging terms and following merging rules we get the dominant model structure after the fall of the Soviet Union as indicated below:

Under win-win situations the two models, model T and model K, merge as follows as only the dominant components prevail after the paradigm fall:

T.K = (aBc)(Abc) = (aA)(Bb)c = ABc = SEM

In summary: Karl Marx's model(K) died and the traditional market model(T) , retained its structure(T = aBc) and all countries previously in the soviet bloc shift to paradigm SEM = ABc, reflecting a model that is different than the one the former soviet bloc had before the shift(K = Abc).

v) The rise of capitalist China

Under win-win socio-economic situation the Chinese leadership moved to close the economy sustainability gap(ECSG) by allowing privatization in a controlled manner making that way ECSG = b--→B, which led to the death of Karl Marx's red socialist model(K) in China, to the birth of China's socio-economic model(CSEM) and to the survival of the system:

We know that under win-win situations, the following is true:

SSG = aA--→A and the ECSG = Bb--→B as the sustainability gaps are closed; and therefore,

T.K = [SSG].[ECSG].c---→ [A].[B].c = ABc = CSEM

Under win-win situations model T and model K merge as follows as only the dominant components prevail:

T.K = (aBc)(Abc) = ABc = CSEM

Therefore we can see again that as Karl Marx's model(K) died, the traditional market, T = aBc, retained its structure and the Chinese system became CSEM = ABc, reflecting a paradigm shift in China that it is different than K = Abc it had previously. In other words, now in China we do not have a red man anymore, we have a red economic man. The red economic man is acting to reflect the mutual self-interest of the economy and society to partially optimize or to jointly maximize socio-economic welfare while the red man before him was acting selfishly to maximize society interest only.

vi) The Chinese socio-economic market(CSEM)

Figure 5 below summarizes the structure of the Chine socio-economic model(CSEM) indicating that now the goal of the state is dual: to look for the best interest of society and the economy at the same time or their mutual self-interest:

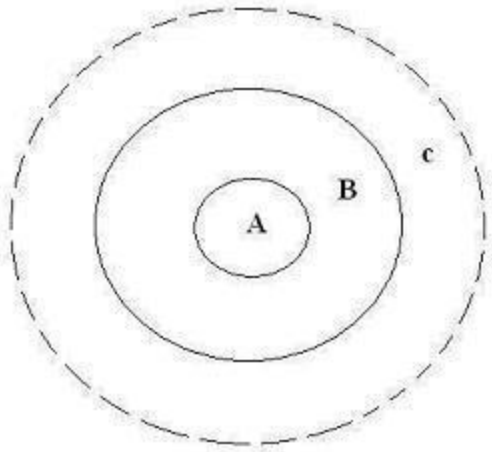

Figure 5 The chinese socio-economic market

Therefore the Chinese model in figure 5 above can be expressed as done below:

CSEM = ABc = AB(ESG)

And now we can see that Chinese socio-economic model(CSEM) is under the influence of an environmental sustainability gap(ESG), which as time passes and as China follows the joint maximization goal and according to sustainability gap expectations it will lead to paradigm death and paradigm shift other things being equal as China cannot live accumulating environmental deficits forever.

Finally it is important to stress here three things: a) Red socialism lost the clash in the soviet bloc because it did not addressed the economic sustainability gap(ECSG) created by Karl Marx when he simplified reality; and b) Red socialism lost the clash in China because the leadership chose to close the economic sustainability gap(ECSG) to avoid system collapse due to capitalism deficits.

vii) The creation of the socio-economic knowledge gap

When the world of Karl Marx died and China and all the former soviet bloc states shifted their red socialism model(K) to the socio-capitalistic model(SEM) they created a socio-economic knowledge gap as there is no red micro-economics(e.g. The theory of the socially friendly firm or consumer); and there is no red macro-economics(e.g. The theory of the socially friendly economy) as well as they left behind the knowledge based supporting the red socialist model.

Food for thoughts

a) Had Karl Marx won the paradigm war if he would have advocated for socially friendly capitalism instead of red socialism?,

b) Had Karl Marx been able to make a case against capitalism if Adam Smith would have stated the sustainability market theory instead of the traditional market theory?, and

c) How would Adam Smith and Karl Marx worlds be expected to perform in a paradigm clash against sustainability markets?

Conclusions

First, it was shown that the cold war was a war between the social sustainability gap in Adam Smith's model and the economic sustainability gap in Karl Marx's model. Second, it was pointed out that facing no win-win socio-economic situation the economic sustainability gap lost the war and led to the death of Karl Marx's model, to the fall of the soviet bloc, and to their shift towards socio-economic models. Fourth, it was stressed that to avoid system collapse the Chinese leadership moved to close their economic sustainability gap which lead to the death of Karl Marx's world in China and to the rise of socially friendly capitalism in China. And finally it was indicated that the shift from red socialism to socio-capitalism created a socio-economic knowledge gap and left the knowledge based of the red socialist system behind.

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