Sustainability thoughts 129: What was wrong with the cold war structure of Karl Marx's red socialism market model? Was the 1991 flip from red socialism to pure capitalism a logical solution to its economic sustainability problem? If not, why not?

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By

Lucio Muñoz*

* Independent qualitative comparative researcher/consultant, Vancouver, BC, Canada. Email: munoz@interchange.ubc.ca

Abstract

When originally proposed Karl Marx's model was affected by an embedded eco-economic sustainability gap as both the economy and environment are assumed exogenous to the model, but through time only the economic sustainability gap took center stage as indicated by the dynamics of the cold war between red socialism and pure capitalism. As the existence of sustainability gaps means the existence of market illusions, then the general red socialism market illusion is that social development can take place without leading to economic and environmental externalities; and the particular cold war red socialism market illusion is that social development can take place without producing economic externalities. And whenever there are market illusions, there are broken circular economies; the red socialism economy was not an exception as it had a broken circular red socialism economy. The fall of red socialism in 1991 did not follow with a paradigm shift towards economy friendly red socialism or red market, but with a flip towards pure capitalism. Apparently red market paradigm shift knowledge gaps prevented decision makers in red socialism countries to proactively see what probably Karl Marx with his deep understanding of how capitalism works could see or could have seen, the need to transition once power is consolidated from red socialism to economy friendly red socialism directly by slowly closing its economic sustainability gap or indirectly through economic externality management markets. The fall of red socialism also meant the fall of Karl Marx's dream of a world without social sustainability gaps, a world where society as a whole benefits from economic and social growth. Hence, there is a need to understand what could have been done logically to keep Karl Marx's dream alive since his time to 1991 and why a flip from red socialism to pure capitalism since 1991 defies proactive logic as it mean trading social responsibility for economic responsibility, which apparently makes this decision a no choice solution. And to gain this understanding, the following questions become relevant: What was wrong with the structure of Karl Marx's red socialism market model? Was the 1991 flip from red socialism to pure capitalism in 1991 a logical solution to its sustainability problem? If not, why not? Among the goals of this paper is to provide an answer, both analytically and graphically, to those questions.

Key concepts

Red socialism market, traditional market, economy friendly red socialism market, red market, circular red socialism economy, circular traditional economy, circular economy friendly red socialism, economic externality management market, circular economic externality management market based red socialism, sustainability gap, economic sustainability gap, social sustainability gap, paradigm shift, paradigm transition, paradigm flip

Introduction

a) The general structure of Karl Marx's red socialism model

i) Analytically

Since the general Karl Marx's red socialism model(KM) when proposed(Marx and Engels 1848) assumes that only society matters(A) so the economy(b) and the environment(c) are passive components in the system, then it can be expressed analytically as follows:

1) KM = Abc

Expression 1) above summarizes the view that in a world of three relevant issues, the society(A), the economy(B) and the environment(C), the general structure of Karl Marx's red socialism model(KM) tells us that only society matters(A) and that the economy(b) and the environment(c) are passive components in the market that exist only support social development goals.

As only society(A) matters, then only social costs(SM) are internalized in production's pricing mechanism as economic and environmental costs are externalized[E(BC) = bc] in the general red socialism model(KM); and therefore, the red socialism market production price(KMP) is determined by social cost(SM) only as indicated below:

2) KMP = SM

Expression 2 above tells us that the red socialism market price(KMP) that guides red socialism production(KK) and red socialism consumption(KL) in the general red socialism model(KM) is determined by social costs(SM).

ii) Graphically

The general structure of the red socialism model(KM) can be expressed graphically in terms of types of producers(KK) and consumers(KL) and the economic and environmental costs that are externalized[E(BC)] as shown below:

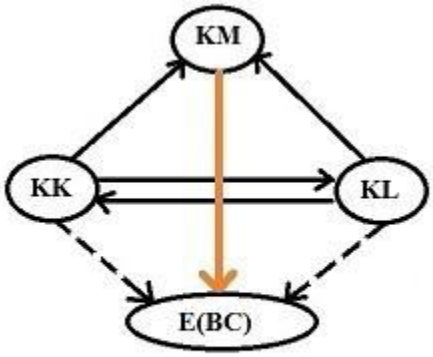

Figure 1 The general structure of the red socialism market

Figure 1 above indicates that in the general red socialism market(KM) there are economic and environmental externalities[E(BC)] associated with social production(KK) and social consumption(KL), but they are taken as irrelevant as indicated by the broken arrows between KK and E(BC) and between KL and E(BC) so they are externalized(E). The idea that social development can take place without producing economic(B) and environmental(C) externalities is the base of the full red socialism market's illusion(Muñoz 2020a).

b) The specific cold war structure of Karl Marx's red socialism model

i) Analytically

Since the cold war Karl Marx's red socialism model(KM) is seen as an anti capitalism model, then it can be said that it assumes that only society matters(A); and that the economy(b) is a passive components in that system, which can be stated as done below:

3) KM = Ab

Expression 3) above summarizes the view that in a world of two relevant issues, the society(A) and the economy(B), where the cold war structure of Karl Marx's red socialism model(KM) tells us that only society matters(A) and that the economy(b) is a passive component in the market that exist only support social development goals. The environment(c) is not relevant so it is dropped out of the cold war version of the model.

Again as only society(A) matters, then only social costs(SM) are internalized in production's pricing mechanism as economic costs are externalized[E(B) = b] in the cold war red socialism model(KM); and therefore, the red socialism market production price(KMP) is determined too by social cost(SM) only as indicated below:

4) KMP = SM

Expression 4 above tells us that the red socialism market price(KMP) that guides red socialism production(KK) and red socialism consumption(KL) in the cold war red socialism model(KM) is determined by social costs(SM).

ii) Graphically

The cold war structure of the red socialism model(KM) can be expressed graphically in terms of types of producers(KK) and consumers(KL) and the economic costs that are externalized[E(B)] as shown below:

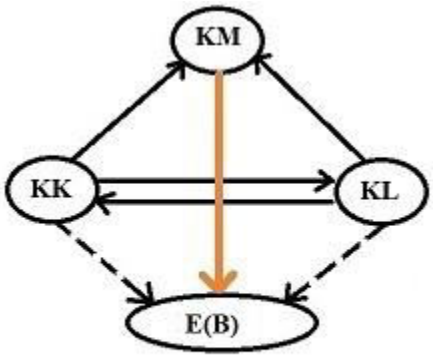

Figure 2 The cold war structure of the red socialism market

Figure 2 above indicates that in the cold war red socialism market(KM) there are economic externalities[E(B)] associated with social production(KK) and social consumption(KL), but they are taken as irrelevant as indicated by the broken arrows between KK and E(B) and between KL and E(B) so they are externalized(E). And this means the red socialism market price(KMP) only reflects social costs(SM) associated with production so that KMP = SM. It has been pointed out recently that leaving economic externalities out creates an economic sustainability gap(ECSG = b), which makes the cold war red socialism model the weakest model(Muñoz 2016) when competing with pure capitalism as when a system with economic sustainability gaps competes with a system with no economic sustainability gaps the system with the sustainability gap loses the cold war(Muñoz 2019a).

c) The market illusion associated with the cold war structure of Karl Marx's red socialism model

The assumption that social development(A) can take place for ever while accumulating economic deficits creates the red socialism market illusion and its circularity; and since economic concerns(b) are irrelevant or do not matter by assumption they can be removed from the structure of the cold war red socialism model(KM) to reflect social dominance(A), a situation described both analytically and graphically below:

i) Analytically

The cold war Karl Marx's red socialism market illusion where social development(A) has no economic impacts[E(B) = b = 1] can be indicated as below:

5) KM = A

Expression 5) tells us that social development(A) has not limits and it produces no externalities(E). In other works, for the red socialism market illusion to hold or exist, there is economic externality neutrality or there is an economic externality neutrality assumption.

ii) Graphically

The cold war red socialism market illusion and its circularity can be expressed graphically in terms of types of producers(KK) and consumers(KL) and the absence of the economic costs as the economic externality assumption says that there are no economic impacts and therefore, no economic costs are externalized[E(B)] as shown below:

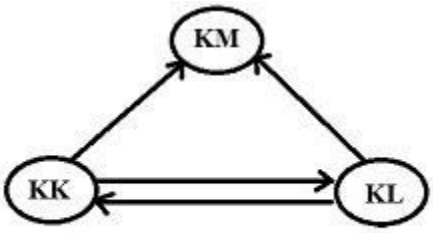

Figure 3 The circular red socialism market illusion

Figure 3 above tells us that under perfect red socialism markets(KM) there are no economic externalities[E(B)]; and therefore, social production(KK) and social consumption(KL) take place without generating economic externalities as indicated by the continuous arrows between KK and KL. Hence, in Figure 3 we have a circular cold war red socialism economy(CKM) where red socialism production(KK) and red socialism consumption(KL) are determined by the social cost only red market price(KMP). It has been recently highlighted that the fall of red socialism in 1991 showed that assuming that economic externalities could be left out of red socialism for ever was a mistake as it led to system collapse(Muñoz 2016).

4) The 1991 fall of red socialism and its flip back to pure capitalism

However, the fall of red socialism in 1991 did not follow with a paradigm shift towards economy friendly red socialism or red market as expected by paradigm dynamic expectations (Muñoz 2019a), but with a flip towards pure capitalism(Muñoz 2019b). Apparently red market paradigm shift knowledge gaps prevented decision makers in red socialism countries to proactively see what probably Karl Marx with his deep understanding of how capitalism works could see or could have seen, the need to transition once power is consolidated from red socialism to economy friendly red socialism directly by slowly closing its economic sustainability gap or indirectly through economic externality management markets. How paradigm shift knowledge gaps can make it difficult for decision makers to see how paradigm shifts can be implemented has been recently stressed(Muñoz 2020b). A way that may have been in Karl Marx mind to move from a world under social sustainability gaps to a world with no social sustainability gaps under economy friendly red socialism step by step has been highlighted recently(Muñoz 2019c) . Notice that the fall of red socialism also meant the fall of Karl Marx's dream of a world without social sustainability gaps, a world where society as a whole benefits from economic and social growth. Hence, there is a need to understand what could have been done logically to keep Karl Marx's dream alive since his time in 1848(Marx and Engels 1848) to 1991 and beyond; and to understand why a flip from red socialism to pure capitalism since 1991 defies proactive logic as it mean trading social responsibility for economic responsibility(Muñoz 2019d), which apparently makes this decision a no choice solution. And to gain this

understanding, the following questions become relevant: What was wrong with the structure of Karl Marx's red socialism market model? Was the 1991 flip from red socialism to pure capitalism in 1991 a logical solution to its sustainability problem? If not, why not? Among the goals of this paper is to provide an answer, both analytically and graphically, to those questions.

Goals of this paper

i) To highlight what was wrong with the cold war red socialism market model and with its circularity?; ii) To point out that there were two expected solutions, one direct and one indirect, to the economic sustainability problem affecting red socialism and avoid system collapse that Karl Marx would have expected to keep the dream of social responsibility alive as well as to stress the nature of the circularity that exist within each of these solutions; and iii) To stress the structure of the solution to the economic sustainability gap that Karl Marx would not have never expected: The flip from red socialism to pure capitalism.

Methodology

i) The terminology used in this paper is shared; ii) Operational concepts and cost internalization and cost externalization rules are given; iii) What was wrong with the cold war red socialism model and with its circularity is pointed out; iv) The direct and indirect solutions to the economic sustainability problem affecting the cold war red socialism model that Karl Marx would have expected to see in order to keep the dream of social responsibility alive are presented in detail; v) The structure of the solution to the economic sustainability problem affecting the cold war red socialism model that Karl Marx would have never expected to see is stressed analytically and graphically; and vi) Some food for thoughts and important conclusions are provided

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
TM = traditional market	KM = red socialism market
CTM = circular traditional economy	CKM = circular red socialism economy
SM = social margin	ECM = economic margin
i = profit	RM = Red market

TMP = P = traditional market price = ECM + i KMP = red socialism market price = SM

E(T) = externalization of T I(ab) = internalization of a and b

I(t) = internalization of t E(AB) = externalization of A and B

I(b) = internalization of b E(B) = externalization of B

K = traditional supply/producers L = traditional demand/consumers

KK = red socialism supply/producers KL = red socialism demand/consumers

RK = red market supply/producers RL = red market demand/consumers

T_B = economic tax on social production ECSG = economic sustainability gap

DK = economic externality management market supply/producers

DL = economic externality management market demand/consumers

RECSG = remaining economic sustainability gap

ECEMI = economic externality management market impact

ECEMP = Economic externality management market price = SM + T_B

ECEM = Economic externality management market

CECEM = Circular economic externality management market

Operational concepts and externalization and internalization rules

<u>i) Operational concepts</u>

1) Traditional market, *the economy only market*

2) Green market, *the environmentally friendly market*

3) Red market, *the socially friendly market*

4) Sustainability market, *the socially and environmentally friendly market.*

5) Traditional market price, the *general market economic only price or the price that covers the*
cost of production at profit(TMP = ECM + i = P) or zero profit(TMP = ECM = P).

6) Green market price, *the price that reflects both the economic and the environmental cost of production or the price that covers the cost of environmentally friendly production.*

7) Red market price, *the price that reflects both the economic and social cost of production or*

the price that covers the costs of socially friendly production.

8) Sustainability market price, *the price that reflects the economic, social, and the environmental cost of production or the price that covers the cost of socially and environmentally friendly production.*

9) Cost externalization, *the leaving out of the pricing mechanism of the market relevant costs associated with production.*

10) Social cost externalization, *the leaving out of the pricing mechanism of the market the social costs associated with production.*

11) Environmental cost externalization, *the leaving out of the pricing mechanism of the market the environmental costs associated with production.*

12) Economic cost externalization, *the leaving out of the pricing mechanism of the market the economic costs associated with production.*

13) Cost externalization assumption neutrality, *the assumption that production has minimal or no cost impact on external factors to a market model.*

14) Full costing, *the reflecting in the pricing mechanism of the market all cost associated with production; there are no market distortions.*

15) Partial costing, *not reflecting in the pricing mechanism of the market all cost associated with production; there are partial market distortions.*

16) No costing, *not reflecting in the pricing mechanism of the market any costs associated with production; there is full market distortion.*

17) Full inclusion, *all factors are endogenous to the model, there are no exclusions.*

18) Partial inclusion, *some factors are exogenous to the model, there are some exclusions.*

19) Fully independent development choices, *when we have individual development choices unrelated to each other or pure choices such as society only(A), economy only(B), and environment only(C). In this world only fully independent development choices exist so the set = {A, B, C}. This is the world of the Arrow Impossibility theory and theorem.*

20) Partially codependent development choices, *when we have mixed/paired development choices such as socio-economy(AB), socio-environment(AC), and eco-economy(BC). In this universe only codependent development choices exist so the set = {AB, AC, BC}. This is outside the normal world of the Arrow Impossibility theory and theorem.*

21) Fully codependent development choices, *when all development choices are mixed together such as the socio-economy-environment(ABC) model. In this paradigm only fully codependent development choices exist so the set = {ABC}. This is outside the world of the Arrow*

Impossibility theory and theorem.

22) Full cost externalization, *all costs associated with production are not reflected in the pricing mechanism of the market.*

23) Partial cost externalization, *some costs associated with production are not reflected in the pricing mechanism of the market.*

24) No cost externalization, *all costs associated with production are reflected in the pricing mechanism of the market.*

25) Full cost internalization, *all costs associated with production are reflected in the pricing mechanism of the market.*

26) Partial cost internalization, *some costs associated with production are reflected in the pricing mechanism of the market.*

27) No cost internalization, *all costs associated with production are not reflected in the pricing mechanism of the market.*

28) Externalities, *factors assumed exogenous to a model*

29) Full externality assumption, *only one component is the endogenous factor in the model; the others are exogenous factors.*

30) Partial externality assumption, *not all factors are endogenous factors at the same time in the model.*

31) No externality assumption, *all factors are endogenous factors at the same time in the model.*

32) Economic externality, *the economic costs associated with production not reflected in the pricing mechanism of the market.*

33) Social externality, *the social cost associated with production not reflected in the pricing mechanism of the market.*

34) Environmental externality, *the environmental cost associated with production not reflected in the pricing mechanism of the market.*

35) Green or environmental margin, *to cover the extra cost of making the business environmentally friendly*.

36) Social margin, *to cover the extra cost of making the business socially friendly.*

37) Economic margin*, to cover only the economic cost of production*

38) Profit, *the incentive to encourage economic activity*

39) Full cost price, *a price that reflects all costs associated with production.*

40) Some cost price, *a price that reflects only some costs associated with production.*

41) No cost price, *a price that does not reflect any cost associated with production.*

42) Circular market illusion, *the idea that production activity can take place without producing relevant externalities.*

43) Circular traditional economy illusion, *the idea that production activity can take place without producing relevant social and/or environmental externalities.*

44) Circular dwarf green economy, *the idea that market prices can be manipulated externally to generate revenue to cover the cost of dealing with the externality they create to close the non-free market cycle production-consumption-environmental externality.*

45) Circular green economy, *the idea that market prices reflect the cost of making business environmentally friendly in order to cover the cost of dealing with the environmental externalities they create to close the free market cycle production-consumption-environmental externality.*

48) Circular sustainability based economy, *the idea that market prices reflect the cost of making business social and environmentally friendly in order to cover the cost of dealing with the social and environmental externalities they create to close the free market cycle production-consumption-socioenvironmental externality.*

49) Circular externality management based market illusion, *the idea that you can solve an externality problem by dealing with the consequences of that problem, not the cause.*

50) The red socialism market, *the society only market*

51) The red socialism market price, *the price that reflects only the social cost of production.*

52) The red socialism market illusion*, the idea that social development can take place without generating environmental and economic externalities*

ii) Externalization rules

Let's assume we have a market with two relevant components, society(A) and economy(B), where A = active component, a = passive component, B = active component, and b = passive component, then the externalization rules(E) work as follows:

1) E(A) = a **---→** *relevant social costs(A) are assumed irrelevant*

2) E(B) = b **---→** *relevant economic costs(B) are assumed irrelevant*

3) E(AB) = ab **---→** *relevant social costs and economic costs(AB) are assumed irrelevant*

iii) Internalization rules

Let's assume we have a market with two relevant components, society(A) and environment(C), where A = active component, a = passive component, C = active component, and c = passive component, then the internalization rules(I) work as follows:

4) I(a) = A ----→ *irrelevant social costs(a) are now relevant*

5) I(c) = C ----→ *irrelevant environmental costs(c) are now relevant*

6) I(ac) = AC ----→ *irrelevant social costs and environmental costs(ac) are now relevant*

iv) Model structure and externalization rules

Let's assume we have the following three market structures M1 = ac, M2 = Ac and M3 = AC, then the following holds true:

7) M1 = ac = E(AC) = *a fully irresponsible market as all costs are externalized*

8) M2 = Ac = [I(a)][E(C)] = *a partially responsible market as social cost is internalized*

9) M3 = AC = [I(a)][I(c)] = *a fully responsible market as all costs are internalized.*

v) Reversing externalization rules

Let's assume we have a market with two relevant components, society(A) and environment(C), where A = active component, a = passive component, C = active component, and c = passive component, then the process of reversing externalization-internalization rules works as follows:

The case of internalizing the externality: if E(AC) = ac, the following holds true:

10) I[E[AC]] = I[ac] = AC, internalization-externalization forces cancel each other out

The case of externalizing the internality: if I(ac) = AC, the following holds true:

11) E[I[ac]] = E[AC] = ac, externalization-internalization forces cancel each other out

What was wrong with the cold war red socialism market model?

We can see that there is a problem in the structure of the cold war red socialism model(KM) in Figure 2 above when the economic externalities[E(B)] that are being externalized because they are assumed to be irrelevant are actually relevant, which means that red socialism is being affected by an economic sustainability gap encrusted in the model. In other words, as economic externality costs are relevant, then there is an economic sustainability gap embedded in the red socialism market in Figure 2 above that appears when economic externalities become relevant factors, which can be appreciated graphically as shown in Figure 4 below:

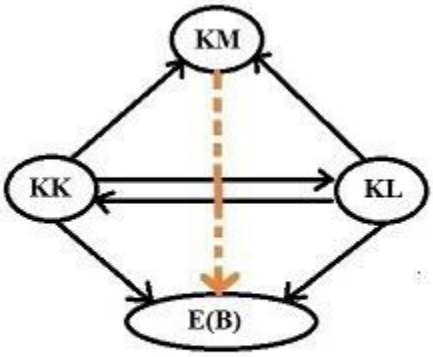

Figure 4 The economic externality problem affecting the cold war red socialism market

Figure 4 above shows clearly that when we externalize relevant economic externalities[E(B)] we create an embedded economic sustainability gap(ECSG) as indicated by the broken arrow from KM to E(B) that affects the sustainability of the cold war red socialism market(KM). Hence, the problem that cold war red socialism had is that it assumed that economic externality costs were irrelevant when they were actually relevant; and externalizing relevant externalities creates an economic sustainability gap that if left unchecked it will expand more and more as the red socialism market expands more and more accumulating economic deficits in the process that will sooner or later bring the model down as we cannot live under economic deficits forever(Muñoz 2019a). Notice that since economic externalities are left out of the pricing mechanism of the cold war red socialism market(KM) in Figure 4 above then red socialism supply/production(KK) and red socialism demand/consumption(KL) are determined by the red socialism market price(KMP) that reflects only social costs of production(SM) so that KMP = SM. Therefore, as red socialism development take place we accumulate economic sustainability deficits as only the social cost of production are captured in the pricing mechanism of the red socialism market(KM), economic costs are not accounted for.

What was wrong with the cold war circular red socialism market model?

We can appreciate in Figure 3 above that there is a problem in the circular structure of the cold war red socialism model(KM) when the economic externalities[E(B)] that are taken as irrelevant are actually relevant, which means that the circular structure of red socialism is being affected by an economic sustainability gap(ECSG) encrusted in the model and breaking its circularity. In other words, as economic externality costs are real, that means that the circular red socialism market in Figure 3 above has been operating under a broken circular red socialism economy as not accounting for economic costs creates an economic externality sustainability gap(ECSG) affecting it, as shown in Figure 5 below:

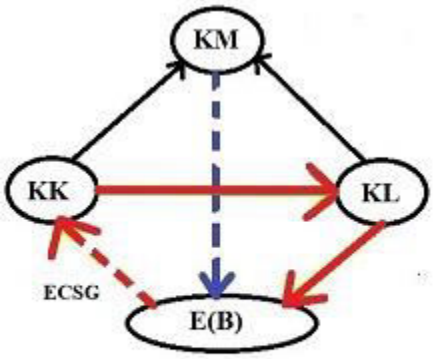

Figure 5 The economic sustainabilitygap(ECSG) embedded in the circular cold war circular red socialism(KM) illusion

Figure 5 above indicates clearly that when we externalized relevant economic externalities[E(B)] as indicated by the broke blue line from KM to E(B) we create a broken circular cold war red socialism market(CKM) as we create an economic sustainability gap(ECSG) that is embedded in the circular structure as indicated by the broken arrow from E(B) to KK, a gap that affects the sustainability of the cold war circular red socialism market. Hence, the problem the cold war circular red socialism market had is that it assumed that a broken circular red socialism economy was not broken when it was broken. We can appreciate too from Figure 5 above that if left unchecked the economic sustainability gap(ECSG) will expand more and more as the red socialism market expands more and more accumulating economic deficits in the process that will sooner or later bring the model down as we cannot live under economic deficits permanently as indicated above. As the red socialism market price(KMP) does not capture the economic costs of production, only the social cost of production, we do not have the economic resources needed to deal with the economic sustainability gap(ECSG) in Figure 5 above.

The two solutions to the economic sustainability problem affecting the cold war red socialism market that Karl Marx would have expected to keep the core goal of social sustainability alive:

There are two possible and logical approaches, one perfect and direct, and one imperfect and indirect, which would have been in Karl Marx's mind giving his deep understanding of how capitalism works so as to keep the goal of social responsibility alive, which are described below:

a) The perfect approach or direct approach to achieve economy friendly red socialism: The economic externality cost internalization solution

The perfect market solution to the economic sustainability gap embedded in the cold war red socialism market(KM) shown in Figure 4 above is economic cost internalization, which has two impacts on the red socialism market: a) it shifts red socialism market to red markets or to economy friendly red socialism market as it closes the economic sustainability gap(ECSG)

affecting it; and b) this leads to an unbroken circular red market economy, both situations are indicated below:

1) The paradigm shift from red socialism(KM) to economy friendly red socialism market or red markets(RM) when the economic sustainability gap is closed through economic cost internalization

When the economic externalities[E(B)] that were irrelevant in Figure 2 above are made relevant and they are accounted for, then the economic sustainability gap(ECSG) affecting the red socialism market showed in Figure 4 above is closed as now economic costs[B] are internalized[I(b) = B], and this shift the cold war red socialism market(KM) to the red market or economy friendly red socialism market(RM) as indicated below:

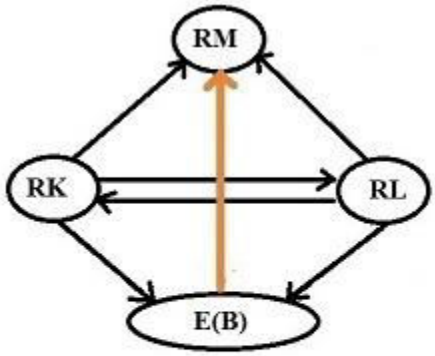

Figure 6 The shift from red socialism(KM) to economy friendly red socialism or red markets(RM) that comes along when the economic externality cost[E(B)] is internalized in the pricing mechanism of the red market(RM)

We can highlight the following aspects based on Figure 6 above: i) In economy friendly red socialism markets or red markets(RM) economic externalities[E(B)] are relevant as indicated by the continuous arrows from RK and RL to E(B); ii) there are no economic sustainability gaps(ECSG) in the red market(RM) as economic cost internalization closes that gap; iii) the red market(RM) is a perfect, free market where red market production(RK) and red market consumption(RL) take place in the absence of both social and economic externalities; iv) The red market(RM) is cleared by the red market price(RMP = RP) which accounts for both the social cost(SM) and the economic cost(P) of production so that RMP = RP = SM + P); and v) the red market(RM) is a socially and economy friendly market as both society(A) and economy(B) are relevant components so the structure of the red market(RM) can be stated analytically as RM = AB. In other words, the red market(RM) is a society and economy friendly market while the cold war red socialism market is a society only friendly market.

2) The unbroken nature of the circular economy friendly red socialism market or red market(CRM) as there are not economic sustainability gaps

As economic externalities are internalized{I[E(B)] = I(b) = B} now, then the red market or economy friendly red socialism market(RM) has a closed circular economy structure as shown in Figure 7 below:

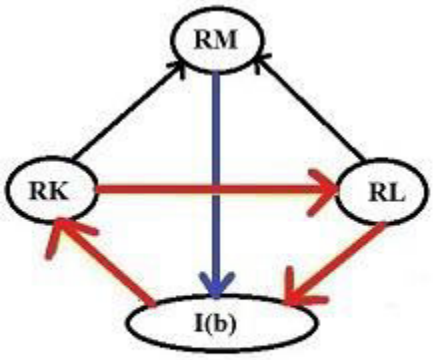

Figure 7 The structure of the circular economy friendly red socialism market or circular red market(CRM)

We can see the following in Figure 7 above: i) The internalization of the economic costs of production[I(b)] closes the economic sustainability gap(ECSG) as indicated by the blue arrow going from RM to I(b); ii) The closing of the economic sustainability gap(ECSG) means that the red market(RM) has an unbroken circular economy that goes from RK to RL to I(b) as indicated by the red arrows. As the economic cost of production are internalized[I(b)] now we have the economic resources needed to maintain the economic sustainability gap closed and live in a world of socially and economy friendly markets or economy friendly red socialism markets(RM), where we have an unbroken circular red economy(CRM).

b) The imperfect approach or indirect approach to achieve economy friendly red socialism: The use of economic externality based markets(ECEM) to transition to economy friendly red socialism or red market(RM)

The imperfect solution through economic externality management markets(ECEM) to address the economic sustainability gap(ECSG) embedded in the cold war red socialism market leads to i) a model with a broken market structure as it is no longer a perfect red socialism market; and ii) a model with a broken circular economic structure as not all economic externalities are accounted for in the economic externality management tax(T_B), a situation described below in detail:

1) The management of the economic sustainability gap

The economic tax(T_B) on social production that is needed to help transition the red socialism market(KM) towards red markets(RM) leads to an economic externality management based market(ECEM) with a structure as indicated in Figure 8 below:

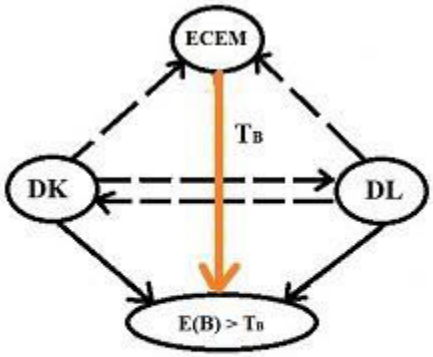

Figure 8 Red socialism under an economic externality management market based framework(ECEM) through tax T_B

We can highlight the following about the economic externality management based market(ECEM) in Figure 8 above: i) The cost of economic externalities is considered relevant as indicated by the arrows between DK and DL to E(B), but not all economic costs are accounted for as $E(B) > T_B$; ii) The institution of the economic tax T_B means that the economic externality management market(ECEM) is not a free market as indicated by the broken arrows from DK and DL to ECEM; iii) The existence of the economic tax T_B means that producers DK and consumers DL in economic externality management markets(ECEM) are price takers as indicated by the broken arrows between DK and DL; and iv) As the social cost of production(SM) and the economic tax T_B are reflected in the pricing mechanism of the economic externality management market, then the economic externality management market price(ECEMP) accounts for those costs so that $ECEMP = SM + T_B$

2) The broken nature of the circular economic externality management based market

As not all economic cost of production[E(B)] are accounted for in the economic externality management market(ECEM) since $E(B) > T_B$, then the economic sustainability gap(ECSG) affecting red socialism is not fully closed leaving a remaining economic sustainability gap(RECSG) still affecting the economic externality management market red socialism model while the economic tax(T_B) is in place, a situation described in Figure 9 below:

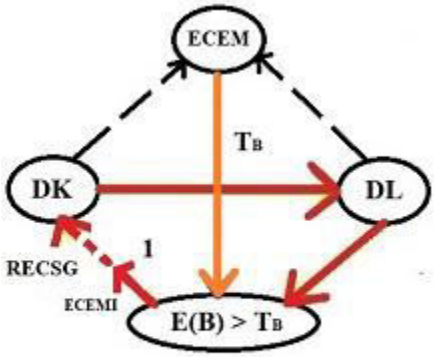

Figure 9 The broken circular economic externality mananament based red socialism market(ECEM)

The following aspects can be pointed out based on Figure 9 above: i) there is a broken circular economic externality management economy(CECEM) based red socialism as there is a remaining economic sustainability gap(RECSG) between DK and E(B) > T_B as indicated by the broken red arrow section; ii) the economic tax(T_B) has an initial economic externality management impact(ECEMI) that reaches up to point 1 as indicated by the continues red arrow section between DK and E(B) > T_B; iii) the economic externality management based market(ECEM) is not a free market as indicated by the broken arrows from DK and DL to ECEM; and iv) an economic tax schedule can be used to closed the remaining economic sustainability gap(RECSG) between DK and E(B) > T_B.

The market structure of the direct solution to the economic sustainability problem affecting the cold war red socialism model in order to achieve economy friendly red socialism that Karl Marx may have expected

As producing at social cost(SM) only for ever was not sustainable, after the consolidation of red socialism and strong accumulation of social assets Karl Marx may have expected an orderly shift from red socialism to economy friendly red socialism or red markets in order to keep the core value of social responsibility intact so the benefits of capitalism accrue to the masses, a shift that can be appreciated easy in Figure 10 below:

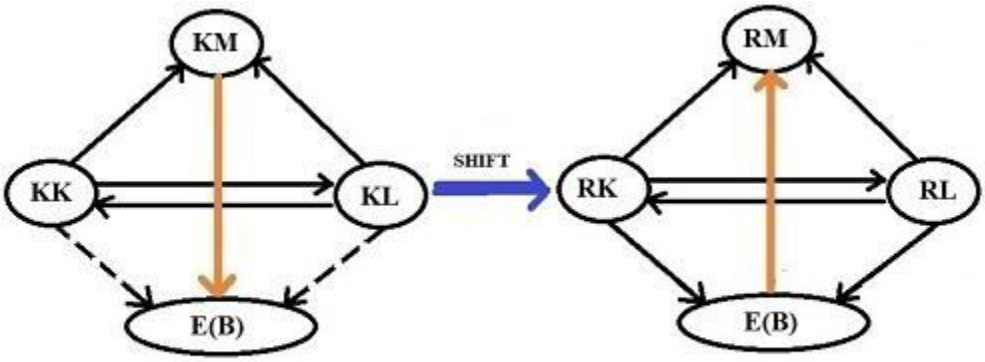

Figure 10 The structure of the paradigm shift from red socialism markets(KM) to red markets(RM)

By contrasting the structure of red socialism(KM) on the left and the structure of economy friendly red socialism(RM) on the right in Figure 10 above we can see the following: i) economic externalities[E(B)] are irrelevant in the red socialism market(KM) as indicated by the broken arrows from KK and KL to E(B) while they are relevant in red markets(RM) as indicated by the continuous arrows from RK and RL to E(B); ii) economic externalities[E(B)] are externalized in red socialism(KM) as indicated by the arrow from KM to E(B) while they are internalized in red markets(RM) as indicated by the arrow from E(B) to RM; iii) both the red socialism market(KM) and the red market(RM) are free markets where their market prices determine supply and demand as indicated by the continuous arrows from KK and KL to KM and from RK and RL to RM respectively; and iv) when we internalized the economic externalities{I[E(B)] = I(b) = B} affecting red socialism market(KM) we shift it to a red market(RM) as indicated by the blue arrow. Both the red socialism model(KM) and the red market model(RM) are socially friendly markets; hence the shift keeps the core value of social responsibility intact, but the red market(RM) is a higher level market than the red socialism market(KM) as it is a more responsible market.

The market structure of the indirect solution to the economic sustainability problem affecting the cold war red socialism model to transition to economy friendly red socialism(RM) that Karl Marx may have expected

Again as producing at social cost(SM) only for ever was not sustainable, after the consolidation of red socialism and weak accumulation of social assets Karl Marx may have expected an step by step transition from red socialism to economy friendly red socialism or red markets in order to keep the core value of social responsibility intact at the end so the benefits of capitalism accrue to the masses, a transition that can be summarized as in Figure 11 below:

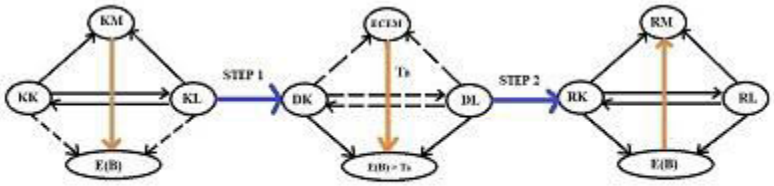

Figure 11 The structure of the transition from red socialism markets(KM) to red markets(RM) through economic externality management based markets(ECEM)

We can see in Figure 11 above that after consolidation of red socialism(KM) under weak social assets accumulation it could have transitioned in two steps towards economy friendly red socialism(RM): i) step 1: the economic externality management step, where the economic tax T_B is to be used to encourage and establish the first blocks of economy friendly red socialism programs; and ii) step 2: the shift to red markets by passing full economic responsibilities to producers and consumers while supporting those actors who need help to be able to fully participate in that market. Hence, Figure 11 summarizes a way to manage the economic sustainability gap affecting red socialism(KM) to bring it towards economy friendly red socialism(RM) step by step.

The structure of the solution to the economic sustainability problem affecting the cold war red socialism model that Karl Marx would have never expected: The flip from red socialism to pure capitalism

What Karl Marx would not have expected is a flip from red socialism(KM) to pure capitalism(TM) as it happened in 1991 as indicated in the introductions as doing this means flipping social responsibility for economic responsibility; and therefore, it means letting Karl Marx's dream of a world without social sustainability gaps behind, the structure of this paradigm flip is shown in Figure 12 below:

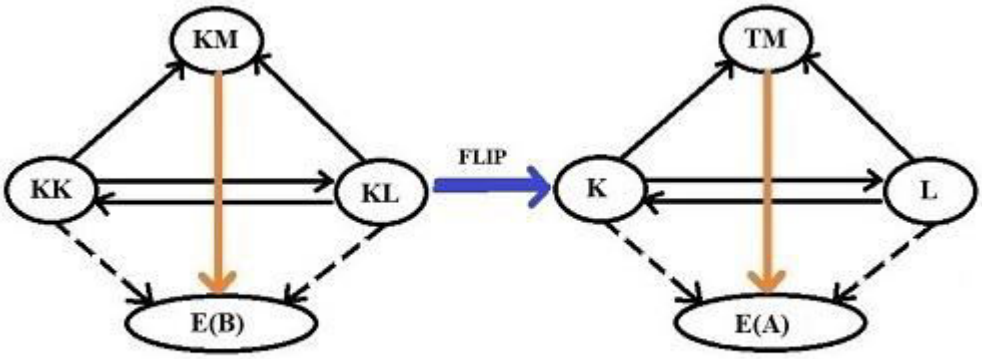

Figure 12 The structure of the paradigm flip from red socialism markets(KM) to pure capitalism markets(TM)

We can highlight the following aspects associated with the flip from red socialism(KM) to pure capitalism(TM) in former red socialism countries detailed in Figure 12 above: i) Economic externalities[E(B)] were irrelevant in during red socialism(KM) as indicated by the broken arrows from KK and KL to E(B) and after the flip now social externalities[E(A)] are

irrelevant as indicated by the broken arrows from K and L to E(A); ii) a flip to traditional markets(TM), instead of a shift red markets(RM) means that the benefits of capitalism will accrue to a few, instead of accruing to the masses; iii) hence, we flipped from a perfect red socialism model(KM) or socially friendly model to a perfect traditional market model(TM), a socially unfriendly model, leaving the core value of social responsibility behind; and iv) this means that we went from a society dominant system to an economy dominant system. In other words, former red socialist countries, including China, went from having an economic sustainability gap when under red socialism to now having a social sustainability gap under pure capitalism affecting their markets. This flip apparently happened as mentioned in the introduction because red market paradigm shift knowledge gaps made it impossible for the leaders of red socialism to see the need to either orderly shift to red markets or transition step by step to red markets through economic externality management based markets soon after red socialism consolidated as a flip of paradigms goes against the core value of social responsibility that brought red socialism into the world stage in the first place.

Summary:

i) What was wrong with the cold war structure of Karl Marx's red socialism market model was that it had an economic sustainability gap embedded as economic externalities are relevant and when not accounted for in the pricing mechanism of the red socialism market it led to the accumulation of economic deficits as social development expanded; ii) There were two logical solutions to the economic sustainability problem affecting cold war red socialism that Karl Marx could have expected, a direct solution or shift to economy friendly red socialism after the consolidation of red socialism; and an indirect solution or transition to economy friendly red socialism through the use of economic externality management based markets; iii) There was an illogical solution to the economic sustainability problem affecting cold war red socialism that Karl Marx would not have expected, the flip from red socialism to pure capitalism; iv) In the presence of red market paradigm shift knowledge gaps the way to implement any of the two logical solutions to keep the goal of social responsibility alive and maintain political power is not clear, leaving no choice but to implement the illogical solution and keep political power; and therefore, v) To maintain political power a flip from cold war red socialism to pure capitalism took place in 1991.

Implications:

i) There was an economic sustainability gap embedded in the cold war red socialism model affecting its sustainability; ii) The flip from cold war red socialism to pure capitalism was the illogical solution to the economic sustainability gap problem as it means flipping the core value of cold war red socialism, social responsibility, for the core value of pure capitalism, economic responsibility; iii) The shift or the transition through economic externality management markets to economy friendly red socialism or red markets were the logical solutions to keep social responsibility as a core value in the model, but red market paradigm shift

knowledge gaps made understanding the how to implement those options impossible; and hence, iv) the illogical solution, the flip from cold war red socialism to pure capitalism was the only practical solution available in 1991as there are no traditional market paradigm shift knowledge gaps affecting the flip.

Food for thoughts

1) If there would have been no red market paradigm shift knowledge gaps during the time of red socialism(1848 to 1991), would the 1991 paradigm flip from red socialism to pure capitalism have taken place? I do not think so, what do you think?; 2) If the cold war would have been between economy friendly red socialism or red markets and pure capitalism, who would have won the cold war? I think red markets, what do you think?; and 3) Are economic externality management markets dwarf red markets? I think yes, what do you think?

Specific conclusions

i) It was pointed out that what was wrong with the cold war red socialism market was the existence of an embedded economic sustainability gap as economic costs associated with social production are real; ii) It was described in detail that there were two logical solutions to fixing the economic sustainability gap while keeping the core value of social responsibility alive, a direct shift to or a transition to economy friendly red socialism or red markets; and iii) It was pointed out that a paradigm flip from cold war red socialism to pure capitalism was the illogical solution as Karl Marx would have never expected it, but under binding red market paradigm shift knowledge gap flipping was the practical solution to keep political power available by 1991.

General conclusion

Over all, it was highlighted that 1) What was wrong with the cold war structure of Karl Marx's red socialism market model was that it had an economic sustainability gap embedded that needed to be fixed proactively by a logical fix, a shift or a transition through economic externality management markets towards red markets, to maintain the core value of social sustainability alive, but that never happened; 2) Hence, by 1991 only the illogical solution to the economic sustainability gap problem affecting cold war red socialism was practical to keep or achieve political power so the fall of cold war red socialism was followed by a flip to pure capitalism in all former soviet bloc countries and China; and 3) therefore, failure to move towards economy friendly red socialism proactively opened the door for a flip back to pure capitalism and to the end of Karl Marx's dream of social responsibility.

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