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## **Sustainability thoughts 116: How the economic science based liberal democracy model should be expected to react when facing external shocks under inequality?**

By

**Lucio Muñoz\***

\* Independent qualitative comparative researcher/consultant, Vancouver, BC, Canada. Email: [munoz@interchange.ubc.ca](mailto:munoz@interchange.ubc.ca)

## **Abstract**

If we look carefully at the unequal structure of the economic science based liberal democracy model in which we live in western countries we can see that a good indicator of what to expect in term of response when this market is impacted by external threats like pandemics, financial market crashes, energy market crashes and so on depends on whether or not that external threat is a binding threat to survival of the rich/the supply side of the market. If the threat is a nonbinding threat to the survival of the rich even when it is a binding threat to the survival of the poor/demand side of the market you should expect the rich to endorse weak responses to the threat. If the threat to the survival of the rich/supply side of the market is a binding threat, whether the rich can disentangle or not from the threat, the rich/supply side of the market will support extreme responses to the threat, even including direct trickle ups only or direct trickle ups and direct trickledown at the same time depending on the entanglement nature of the binding threat. For example, the corona virus threat is a binding threat to the survival of the rich/supply side of the market as it cannot disentangle from it; and hence we should expect them to endorse direct trickle ups and direct trickledowns at the same time. Yet no much is written about links between the treat to the survival of the rich/supply side of the market and the nature of the responses they are willing to support to face the external threat head on under the economic science based liberal democracy under inequality in which they thrive. Which raises the question, how the economic science based liberal democracy model should be expected to react when facing external shocks under inequality? The main goal of this paper is to provide a detailed answer to this question, both analytically and graphically.

## **Key concepts**

Equality, inequality, liberal democracy, liberal market, external threats, binding threats, non-binding threats, entanglement, disentanglement, trickledowns, trickleups, pro-rich growth, unbalanced growth

## Introduction

### a) The structure of the economic science based liberal democracy model under inequality

The link between economic science and the science based liberal democracy model under inequality has been recently detailed (Muñoz 2020) as indicated in Figure 1 below:

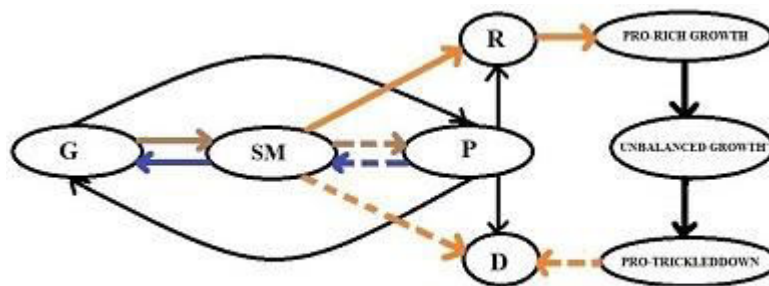


Figure 1 The economic science based liberal democracy model under inequality

The following aspects can be highlighted to summarize the nature of the economic science based liberal democracy model under inequality in Figure 1 above: i) Governments (G) are elected by the people (P) one person, one vote as indicated by arrow from P to G; ii) elected governments (G) use economic science (SM) to provide unequal treatment to the rich (R) and the poor (D), the rich (R)/supply side receives direct support as indicated by the continuous arrow from SM to R; and the poor (D)/demand side receives indirect support as indicated by the broken arrow from SM to D; iii) unequal government (G) treatment leads to pro-rich growth, which leads to unbalanced economic development and to pro-trickledown wishes where unbalanced growth somehow will indirectly benefit the poor (D)/demand side as indicated by the broken arrow from PRO-TRICKLEDDOWN to D; and iv) the livelihood of the poor (D)/demand side depends on indirect help from the government (G) and indirect help from pro-trickledown expectations from the rich (R)/supply side. It is known that benefit trickledowns from the rich/supply side do not work under inequality as little or no benefit reaches the poor (Muñoz 2009). Under normal conditions or no external threats to the economic science based liberal democracy under inequality in Figure 1 elected governments will pursue a pro-rich growth agenda always.

### b) The structure of the economic science based liberal democracy model under inequality and general external threats to the survival of the rich

If what makes the economic science based liberal democracy model take action or not in response to external threats is whether or not this external threat is a binding threat to the

survival of the rich(R)/supply side of the market, then the rich(R) plays a central role in influencing the government(G) in how to respond to specific external threats as it is indicated in Figure 2 below:

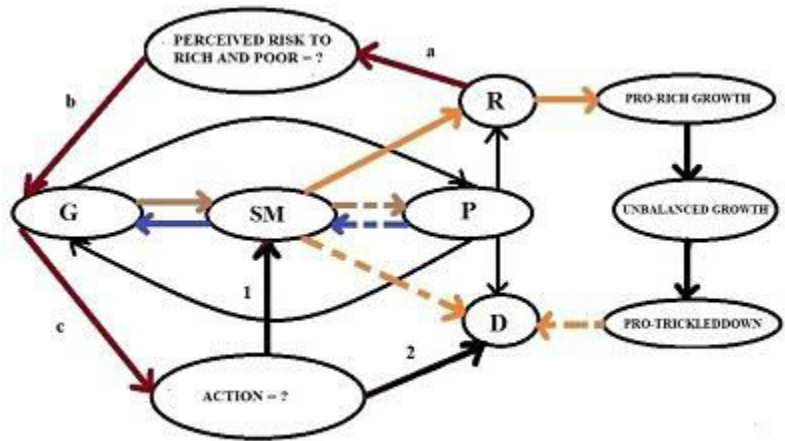


Figure 2 The economic science based liberal democracy under under inequality and external threats

We can see in Figure 2 above that the rich(R) can afford access to economic science(SM) knowledge as indicated by the continuous arrow from SM to R while the poor(D) cannot afford access to it as indicated by the broken arrow from SM to D. Hence, the way the rich(R) influences government action(G) based on Figure 2 above has four steps: i) First, the rich(R) uses economic science knowledge(SM) to incorporate perceived risk to wellbeing of the rich and of the poor as indicated by arrow “a”; ii) the rich(R) uses this assessment to lobby the government(G) as indicated by arrow “b”; iii) the rich(R) influences government action(G) as indicated by arrow “c”; and iv) the government(G) then will take direct action as indicated by arrow “1” and/or indirect action as indicated by arrow “2” consistent with the best interest of the rich(R)/supply side of market for its survival. In other words, consistent with Figure 2 above, if the survival of the rich(R) is not at stake when facing external threats, they will incorporate this understanding to influence the government; and the government then will take no action or at the most it will take mild indirect action to help the poor even if the survival of the poor(D) is at stake, but if the survival of the rich(R) is at stake the rich will use this understanding to influence the government; and then the government should be expected to take extreme actions, total and partial extreme actions to ensure the survival of the rich. It has been pointed out that in societies or systems based on dominant-dominated components the will of the dominant component prevails(Muñoz 2019) for as long as the deterioration of the dominated component can be managed and does not lead to system collapse or merger; and hence the dominant component should be expected to go the extra mile to ensure its survival so the rich in the rich dominated liberal markets should be expected to go even to extreme responses to external threats if its survival is at stake.

**c) The need to understand the links between external threats to the survival of the rich and the type of government support they will endorse in response to the threat**

Hence, if we look carefully at the unequal structure of the economic science based liberal democracy model in which we live in western countries detailed in Figure 1 above we can see that a good indicator of what to expect in term of response when this market is impacted by external threats like pandemics, financial market crashes, energy market crashes and so on is whether or not that external threat is a binding threat to survival of the rich/the supply side of the market as schematized in Figure 2 above. If the threat is a nonbinding threat to the survival of the rich even when it is a binding threat to the survival of the poor/demand side of the market you should expect the rich to endorse from no government response to weak responses to the threat. For example, science based global warming threats(UN 1992; IPCC) all over the world have not been met with extreme government responses yet as indicated by the Paris Agreement(UN 2015a) as the rich apparently see those threats not just as not immediate threats, but also as threats with disentanglement. So the rich will support development programs and goals and practices that fall far away from extreme action(UN 2015b; UNEP 2017; CPLC 2019).

On the other hand, if the threat to the survival of the rich/supply side of the market is a binding threat, whether the rich can disentangle or not from the threat, the rich/supply side of the market will support extreme responses to the threat, even including direct trickle ups only or direct trickle ups and direct trickledown at the same time depending on the entanglement nature of the binding threat to the rich. For example, the corona virus threat is a binding threat to the survival of the rich/supply side of the market as they cannot disentangle from it; and hence we should expect them to endorse direct trickle ups and direct trickledowns at the same time to ensure their survival. In other words, science based corona virus pandemic threats(WHO 2020) all over the world have been met with extreme government responses endorsed by the rich such as economic responses(Foster and Mundell 2020) under lockdowns(BBC 2020) and travel bans(Josephs 2020) as the rich see those threats not just as immediate threats, but also as threats with entanglement. So the rich will support development programs with extreme action supported by non-mandatory policies as in Canada(Flanagan 2020) to mandatory policies as in Italy(Horowitz 2020) if the survival of the rich is at stake.

Yet no much is written about links between the threat to the survival of the rich/supply side of the market and the nature of the responses they are willing to support to face the external threat head on under the economic science based liberal democracy under inequality in which they thrive. Which raises the question, how the economic science based liberal democracy model should be expected to react when facing external shocks under inequality? The main goal of this paper is to provide a detailed answer to this question, both analytically and graphically.

### **The goals of this paper**

a) To use the external threat impact framework shared in Figure 2 above to highlight the expected response of the government when the type of threat to the survival of the rich/supply

side of market changes from low risk with or without entanglement to high risk with or without entanglement; and b) to point out the expected implications of different government responses to both to the wellbeing of the rich and that of the poor.

## **The methodology**

First, the terminology used in this paper is introduced. Second, the operational concepts and threat entanglement-government response expectations are shared. Third, the economic science based liberal democracy under inequality is subjected to low risk external threat to the survival of the rich with entanglement considerations. Fourth, the economic science based liberal democracy under inequality is subjected to high risk external threat to the survival of the rich and entanglement considerations. Fifth, the economic science based liberal democracy under inequality is subjected to high risk external threat to the survival of the rich and disentanglement considerations. Sixth, the economic science based liberal democracy under inequality is subjected to low risk external threat to the survival of the rich and disentanglement considerations. Finally, some food for thoughts and relevant conclusions are listed.

## **The terminology**

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SM = economic science based market      R = the rich/supply side of market

D = the poor/demand side of market      LMM = liberal market model

SLDM = science based liberal democracy model      P = people

ESLDM = economic science based liberal democracy model      G = elected government

Ti = external threat “i”      GR<sub>Ti</sub> = government response to threat Ti

M1 = equality market      EMETi = equality market under threat Ti

M2 = inequality market      IMETi = inequality market under threat Ti

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## **The operational concepts and operational models and government response expectations**

### **A) Operational concepts**

- 1) **Equality**, *the idea that all members of a system receive the same treatment.*
- 2) **Inequality**, *the idea that only some members of a system receive better treatment.*
- 3) **The liberal market**, *the pro-growth market.*
- 4) **Sustainability**, *the idea that equality leads to full responsibility.*
- 5) **Trickledown**, *the idea that pro-rich growth will one day indirectly benefit the poor.*
- 6) **Direct trickledown**, *the help that reach the poor directly.*
- 7) **Extreme intervention based direct trickle down**, *the government help that reach the poor directly during an extreme event.*
- 8) **Trickle up**, *the government help that reach the rich directly during an extreme event.*
- 9) **Indirect trickle up**, *the idea that direct trickledown will benefit pro-rich growth.*
- 10) **Pro-rich growth**, *the type of development targeted to benefits the rich.*
- 11) **Pro-poor growth**, *the type of development targeted to benefit the poor.*
- 12) **Balanced growth**, *the type of development that brings benefits to both the rich and the poor at the same time.*
- 13) **Unbalanced growth**, *the type of development that brings benefits to only the rich or to only the poor.*
- 14) **Externality neutrality assumption illusion**, *the idea that relevant inequalities or market distortions can be assumed away to create perfect conditions.*
- 15) **External threats**, *threats coming from outside the system.*
- 16) **Binding external threats**, *high risk threats, real or perceived.*
- 17) **Non-binding external threats**, *low risk threats, real or perceived.*
- 18) **Entanglement/entangle**, *being coupled/coupled.*
- 19) **Disentanglement/disentangle**, *being uncoupled/uncoupled.*
- 20) **Extreme government response**, *the help the government provides during extreme threats under equality markets or inequality markets.*

## **B) Operational models and government response expectations**

Let's assume we have the following environment: i) we have a market system(M) with two components, the rich(R) and the poor(D); ii) we have external threats(T) that can be binding(B) threats with entanglement(E) or without entanglement(e) and that there can be non-binding(b) threats with entanglement(E) or without entanglement(e); and iii) where R = active component, r = passive component, D = active component, and d = passive component.

### **a) Types of markets**

#### ***i) A market under equality( $M_1$ )***

A market under equality has all its components in active form so it can be stated as follows:

$$1) M_1 = R.D$$

Expression 1) above simply says that in this market both the rich(R) and the poor(D) are equally important.

#### ***ii) A market under inequality( $M_2$ )***

A market under inequality does not have all its components in active form so it can be stated as follows:

$$2) M_2 = R.d$$

Expression 2) above simply indicates that in this market only the rich(R) is important, but the poor(d) is not.

### **b) Linking markets with external threat impacts**

#### ***i) Equality market under external threat(EME)***

The impact of external threat( $T_i$ ) on the components of an equality based system is spread across all the components of the system and as both of them is active components of the system the impact on both of them matters and will equally guide policy response making. If we spread  $T_i$  across expression 1) above we get the following:

$$3) T_i(M_1) = T_i(R.D) = T_i(R).T_i(D)$$

Expression 3 above is telling us that the external threat( $T_i$ ) affects both the rich(R) and the poor(D) in the equality market ; and therefore, both of them can influence equally government policy response making as both of them are active components. In other words, both the impact  $T_i(R)$  and the impact  $T_i(D)$  matter when influencing the government policy responses to  $T_i$  under equality.

Hence, the general structure of the equality market under the external threat  $T_i$  is the following:

$$4) EME_{T_i} = T_i(R).T_i(D)$$

*ii) Inequality market under external threat(IME)*

The impact of external threat( $T_i$ ) on the components of an inequality based system is spread across all the components of the system too, but since only one is an active component of the system then only the impact on the active component matters in guiding government policy response making. If we spread  $T_i$  across expression 2) above we get the following:

$$5) T_i(M_2) = T_i(R.d) = T_i(R).T_i(d) = T_i(R)$$

Expression 5 above is saying that the external threat( $T_i$ ) affects both the rich( $R$ ) and the poor( $D$ ), but since the poor( $d$ ) is a passive component only the impact on the rich will affect policy response making. In other words, it is like  $T_i(d)$  does not exist [ $T_i(d) = 1$ ] so it can be dropped, only the impact  $T_i(R)$  matters when influencing the government policy responses to  $T_i$  under inequality.

Hence, the general structure of the inequality market under the threat  $T_i$  is the following:

$$6) IME_{T_i} = T_i(R)$$

**c) Types of external threats**

The external threats( $T_i$ ) can be binding( $B$ ) to the components of the system if the risk is high or they can be with entanglement( $E$ ) if a component cannot disentangle from that external threat or it can be both binding and entangled at the same time to the components, which can be stated as in the expression below:

$$7) T_i = B + E$$

There are 4 types of external threats( $T_i$ ) that can be extracted from expression 5) above:

*i) The case of binding threat with disentanglement*

When the components of the system face a high risk external threat, but they can disentangle from the threat either based on science or non-science, they are said to have a binding threat( $B$ ) with disentanglement( $e$ ), which is the first type of external threat based on expression 5 above:

$$8) T_1 = B.e$$

*ii) The case of non-binding threat with entanglement*



When the components of the system face a low risk external threat and they cannot disentangle from the threat neither based on science or non-science, they are said to have a non-binding external threat(b) with entanglement(E), which is the second type of external threat based on expression 5 above:

$$9) T_2 = b.E$$

*iii) The case of binding threat with entanglement*

When the components of the system face a high risk external threat and they cannot disentangle from the threat neither based on science or non-science, they are said to have a binding threat(B) with entanglement(E), which is the third type of external threat based on expression 5 above:

$$10) T_3 = B.E$$

*iv) The case of nonbinding threat with disentanglement*

When the components of the system face a low risk external threat and they can disentangle from the threat based on science or non-science, they are said to have a non-binding threat(b) with disentanglement(e), which is the fourth type of external threat based on expression 5 above:

$$11) T_4 = b.e$$

**d) Linking external threat with market type**

*i) The case of the equality market under external threats(EME)*

As under equality there cannot be disentanglement from external threats as both the rich(R) and the poor(D) face the external threat(Ti) under equality, then the only two threats to the system that matter here are the external threats  $T_2 = b.E$  and  $T_3 = BE$  as both of them are threats with entanglement(E). In other words, any government policy response to the external threat under equality markets will be proportional to the type of external threat(Ti) face by both the rich(R) and the poor(D) depending on if the threat is  $T_2$  or  $T_3$ . Neither the rich(R) nor the poor(D) can disentangle from the external threat, be it binding(B) or non-binding(b).

*ii) The case of the inequality market under external threats(IME)*

As under inequality there can be disentanglement(e) from and entanglement(E) with the external threats so all threats  $T_1 = Be$ ,  $T_2 = bE$ ,  $T_3 = BE$  and  $T_4 = be$  are important here. And since in inequality markets only the external threat impact on the rich(R) matters and therefore, only this impact is to be incorporated in guiding any government policy response. Then the rich(R) should be expected to endorse government responses to the external threat that protect their survival or wellbeing or best interest regardless of the type of threat. In other words, any

policy response to the external threat under inequality markets will be disproportional to the response aimed at the poor(D). Under any scenario then, regardless of whether the wellbeing of the poor(D) is at stake or not in the face of the external threat  $T_i$  the rich(R) will endorse only responses that benefit them, partially or totally.

**e) Linking type of external threat with equality market and with the expected government response to be endorsed in this market to deal with the threat**

In equality markets under external threat ( $EME_{T_i}$ ) in expression 4) above we can see that the impact on the survival of rich(R) and of the poor(D) in the face of the threat  $T_i$  are equally important and since under equality there can be no disentanglement from the threat as the rich and the poor are entangled and face it equally together, then only threats  $T_i$  with entanglement matter under equality; and hence the type of threat with entanglement to the equality system ( $T_2$  or  $T_3$ ) is what determines the type of government response ( $GR_{T_i}$ ) to the threat they both the rich and the poor are expected to endorse, a situation that can be stated as follows:

**12)  $EME_{T_i} = T_i(R).T_i(D) \rightarrow GR_{T_i} = \text{type of government response expectation}$**

Expression 12) above simply says that the type of government response ( $GR_{T_i}$ ) in the equality market depends on the type of response that both the rich(R) and the poor(D) will endorse.

*i) Case 1: If the external threat to the equality market is  $T_i = T_2 = b.E = a \text{ non-binding threat}(b)$  to the survival of the equality system with entanglement(E), then substituting this into expression 4) above we get the following:*

**13)  $EME_{T_2} = T_2(R).T_2(D) = bE(R).bE(D)$**

Since according to expression 13) above the threat to both the rich(R) and the poor(D) is non-binding(b), and that means that the risk is low and since both the rich(R) and the poor(D) are entangled(E) to the threat  $T_2$  then they both will endorse a government response of no action to mild action to ensure the survival of both components, as stated below:

**14)  $EME_{T_2} \rightarrow GR_{T_2} = \text{No to mild government response to protect both}$**

**Expectation 1:** Expression 14) tells us that we should expect the rich(R) and the poor(D) to endorse no response to mild government response when equality markets are under threat  $T_2 = b.E$

*ii) Case 2: If the external threat to the equality market is  $T_i = T_3 = B.E = a \text{ binding threat}$  to the survival of the equality system with entanglement, then substituting this into expression 4) above we get the following:*

**15)  $EME_{T_3} = T_3(R).T_3(D) = BE(R).BE(D)$**

Since according to expression 15) above the threat to both the rich(R) and the poor(D) is binding(B); and that means that the risk is high and since both the rich(R) and the poor(D) are entangled(E) to the threat  $T_3$ , then they both will endorse a government response of strong to extreme action to ensure the survival of both components, as indicated below:

**16)  $IME_{T_3} \text{-----} \rightarrow GR_{T_3} = \text{Strong to extreme government response to protect both}$**

**Expectation 2:** Expression 16) tells us that we should expect the rich and the poor to endorse strong to extreme government response when equality markets are under threat  $T_3 = BE$ .

**f) Linking type of external threat with inequality market and with expected government response to be endorsed in this market**

In inequality markets under external threat ( $IME_{T_i}$ ) in expression 6) above we can see that the impact on the survival of rich(R) matters in the face of the threat  $T_i$ ; and therefore, that is what determines the type of government response( $GR_{T_i}$ ) to the threat that the rich are expected to endorse, a situation that can be stated as follows:

**17)  $IME_{T_i} = T_i(R) \text{-----} \rightarrow GR_{T_i} = \text{type of government response expectation}$**

Expression 17) above simply says that the type of government response( $GR_{T_i}$ ) in the inequality market depends only on the type of response that the rich(R) will endorse.

*i) Case 1: If the external threat to the inequality market is  $T_i = T_1 = B.e = a binding threat to the survival of the rich with desentanglement, then substituting this into expression 6) above we get the following:$*

**18)  $IME_{T_1} = T_1(R) = B.e(R)$**

Since according to expression 18) above the threat to the rich(R) is binding(B); and that means that the risk is high and since the rich(R) are disentangled(e) from the threat  $T_1$ , then they will endorse an extreme government response to ensure only their survival regardless of the impact of that action on the poor(D), as indicated below:

**19)  $IME_{T_1} = T_1(R) \text{-----} \rightarrow GR_{T_1} = \text{partial extreme government action to protect the rich}$**

**Expectation 3:** Expression 19) tells us that we should expect the rich(R) to endorse partial extreme government response to protect itself only when inequality markets are under threat  $T_1 = Be$ . This expectation may apply when there is a market crash threat.

*ii) Case 2: If the external threat to the inequality market is  $T_i = T_2 = b.E = a non-binding threat to the survival of the rich with entanglement, then substituting this into expression 4) above we get the following:$*

**20)  $IME_{T_2} = T_2(R) = b.E(R)$**

Since according to expression 20) above the threat to the rich(R) is non-binding(b); and that means that the risk is low and since the rich(R) are entangled(E) with the threat  $T_2$ , then they will endorse no response to mild government response depending or not if  $T_2$  is a threat to the survival of the poor or not, as indicated below:

**21)  $IME_{T_2} = T_2(R)$  ----- $\rightarrow GR_{T_2} =$  no action to mild government action is endorsed**

**Expectation 4:** Expression 21) tells us that we should expect the rich(R) to endorse no action to mild action as government response when inequality markets are under threat  $T_2 = bE$ . This expectation may apply to the global warming threat to an inequality based market.

*iii) Case 3: If the external threat to the inequality market is  $T_i = T_3 = B.E =$  a binding threat to the survival of the rich with entanglement, then substituting this into expression 4) above we get the following:*

**22)  $IME_{T_3} = T_3(R) = B.E(R)$**

Since according to expression 22) above the threat to the rich(R) is binding(B) ; and that means that the risk is high and since the rich(R) are entangled(E) from the threat  $T_3$ , then they will endorse full extreme government response to ensure only the survival of the rich(R) and the poor(D) at the same time, as indicated below:

**23)  $IME_{T_3} = T_3(R)$  ----- $\rightarrow GR_{T_3} =$  extreme government action to protect all is endorsed**

**Expectation 5:** Expression 23) tells us that we should expect the rich(R) to endorse a full extreme government response to protect both the rich(R) and the poor(D) at the same time when inequality markets are under threat  $T_3 = BE$ . This expectation may apply to pandemic threats such as the corona virus to an inequality based market.

*iv) Case 4: If the external threat to the inequality market is  $T_i = T_4 = b.e =$  a non-binding threat to the survival of the rich with disentanglement, then substituting this into expression 4) above we get the following:*

**24)  $IME_{T_4} = T_4(R) = b.e(R)$**

Since according to expression 24) above the threat to the rich(R) is non-binding(b); and that means that the risk is low; and since the rich(R) are disentangled(e) from the threat  $T_4$ , then they will endorse no action as the government response following its best interest regardless of the impact of that action on the poor(D), as indicated below:

**25)  $IME_{T_4} = T_4(R)$  ----- $\rightarrow GR_{T_4} =$  no action policy response is endorsed by the rich**

**Expectation 6:** Expression 25) tells us that we should expect the rich(R) to endorse no action as the government response when inequality markets are under threat  $T_4 = b.e$ . If the survival of the poor were at stake, the position of the rich will be “that is life” and endorse no

government action to help the poor as the normal operation of the inequality market is expected to take care of the that problem through trickledowns.

**The economic science based liberal democracy model under inequality when facing an external threat that is non-binding with entanglement**

In the case where the real risk from the external threat to the survival of the rich is low or perceived low because it is not taken as an immediate threat and when there is entanglement or coupling, then we have a situation where based on using science or no science led lobbying the rich will endorse indirect mild government responses to help the poor if the survival of the poor is at stake as that situation could blow back on the rich wellbeing if the poor fully collapses, which is summarized in Figure 3 below:

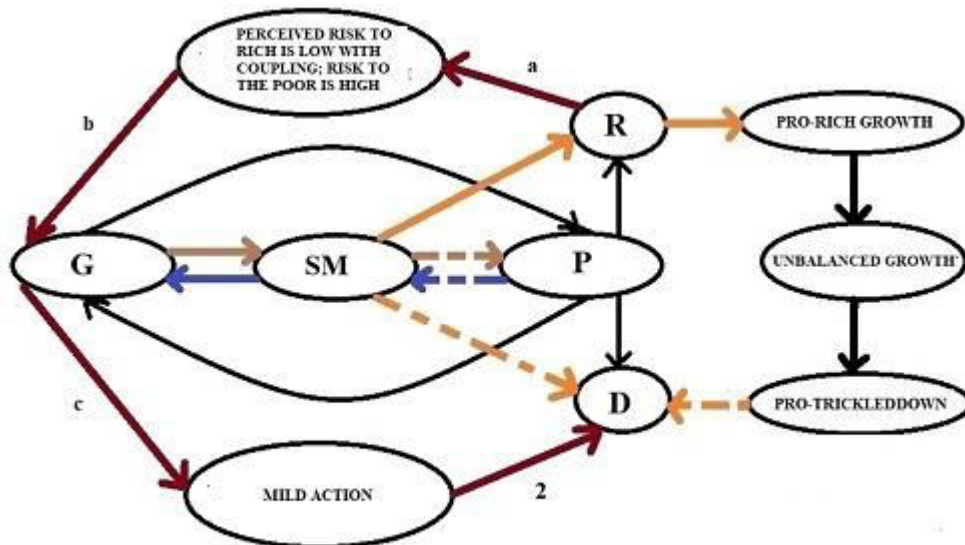


Figure 3 The economy science based liberal democracy model under inequality, low risk and decoupling external threat

We can see in Figure 3 above the following: i) As the risk to the survival of the rich is low and the rich is entangled or coupled to the threat; and the risk to the poor is high, then the rich/supply side of the market will lobby the government following the path black arrow “a” to black arrow “b” to black arrow “c” for implementing mild action to help the poor indirectly as indicated by the black arrow “2” between MILD ACTION and D; and ii) the rich expects to benefit the poor also indirectly through the trickledown pushed down by the unbalance growth system as indicated by the broken arrow from PRO-TRICKLEDDOWN to D. The situation in Figure 3 above is consistent with the government response  $GR_{T2}$  expectation 4 of mild action shared in the operational expectations above when inequality markets are under threat  $T2 = b.E$

## The economic science based liberal democracy model under inequality when facing an external threat that is binding with entanglement

In the case where the perceived risk or real risk from the external threat to the survival of the rich is high and there is entanglement or coupling, then we have a situation where there is a binding threat as it is a sure immediate threat to the rich and they are entangled to it, then we have a situation where using science or no science they cannot avoid the treat so they will lobby the government for full extreme action; and they will endorse that full extreme government action as response to help themselves and to help the poor at the same time, which is summarized in Figure 4 below:

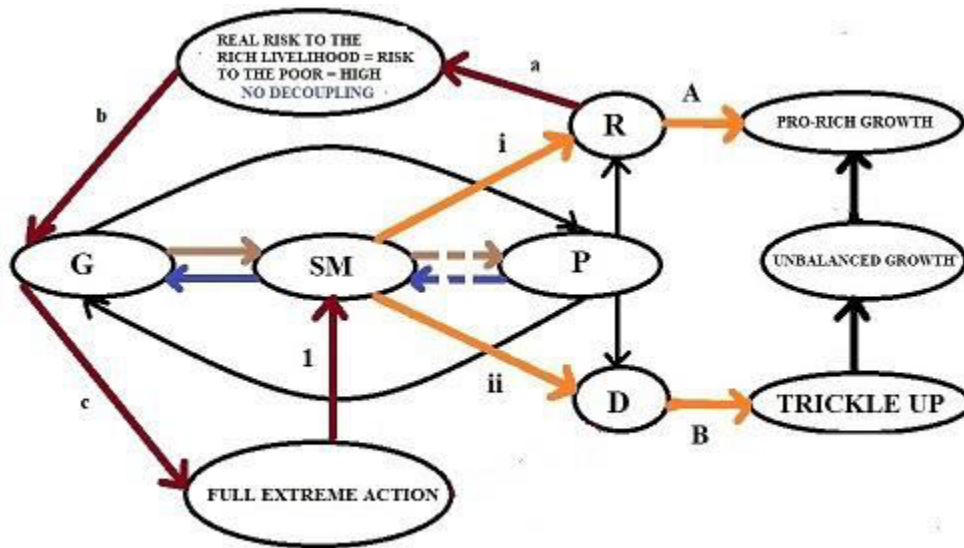


Figure 4 The economy science based liberal democracy model under inequality and no decoupling threats

We can see in Figure 4 above the following aspects: a) As the risk to the survival of the rich is high and the rich is entangled to the threat; and the risk to the poor is high; then the rich/supply side of the market will lobby the government following the route arrow “a”, arrow “b”, and arrow “c” for implementing full extreme action to help both the rich and the poor directly as indicated by the black arrow “1” between FULL EXTREME ACTION and SM; b) there is a direct trickle up to the rich(R) as indicated by arrow “i” to support the pro-rich growth program as indicated by arrow A; and c) there is a direct trickledown to the poor(D) as indicated by arrow “ii” to support pro-poor growth as indicate by arrow B, which leads to an indirect trickle up from the poor(D) to the rich(R) that helps stabilize unbalanced growth and the pro-rich growth model. The situation in Figure 4 above is consistent with the government response  $GR_{T3}$  expectation 5 of full extreme government action shared in the operational expectations above when inequality markets are under threat  $T3 = BE$ .

## The economic science based liberal democracy model under inequality when facing an external threat that is binding with disentanglement

In the case where the perceived risk or real risk from the external threat to the survival of the rich is high and there is disentanglement, then we have a situation where there is a binding threat as it is a sure or immediate threat to the survival of the rich, but they can disentangle from it, then we have a situation where using science or no science led lobbying the rich will influence the government to take a partial extreme response and the rich will endorse this partial extreme government action as response but only to help itself, which is summarized in Figure 5 below:

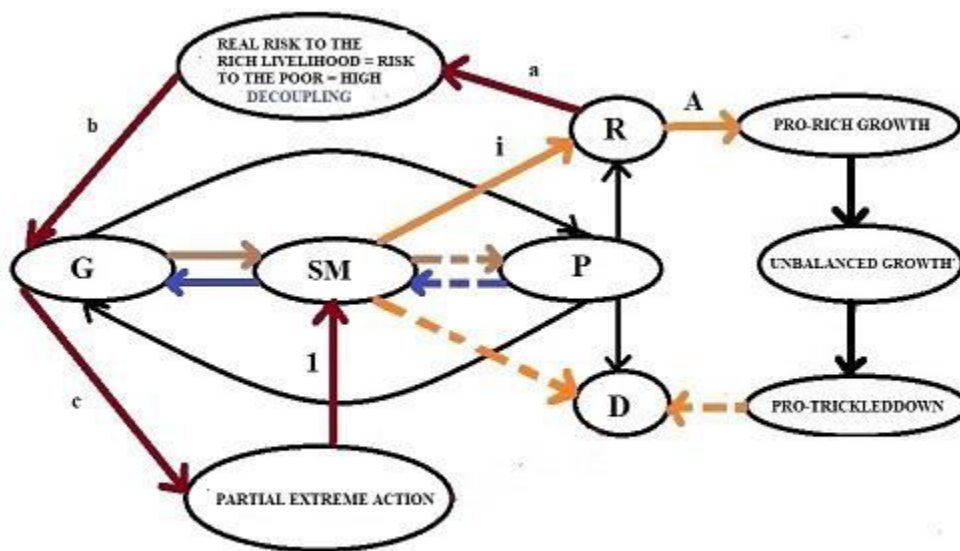


Figure 5 The economic science based liberal democracy model under inequality and high risk with decoupling threat

We can see in Figure 5 above the following aspects: a) As the risk to the survival of the rich is high and the rich is disentangled to the threat; and even when the risk to the poor is high the rich/supply side of the market will lobby the government following the influence route arrow “a”, arrow “b” and arrow “c” for implementing partial extreme action to help itself directly as indicated by the black arrow “1” between PARTIAL EXTREME ACTION and SM; b) there is a direct trickle up to the rich only as indicated by arrow “i” to support the pro-rich growth program as indicated by arrow A; c) there is no direct trickledown to the poor as indicated by the broken arrow “ii” to support pro-poor growth; and d) the rich now hopes to help the poor indirectly by the trickledown generated by the trickle up and pushed down by unbalanced growth. The situation in Figure 5 above is consistent with the government response  $GR_{T1}$  expectation 3 of partial extreme government action shared in the operational expectations above when inequality markets are under threat  $T1 = Be$ .

## The economic science based liberal democracy model under inequality when facing an external threat that is non-binding with disentanglement

In the case where the perceived risk or real risk from the external threat to the survival of the rich is low and there is disentanglement or decoupling, then we have a situation where there is a non-binding threat as it is not a sure or immediate threat to the rich and they can disentangle from it, then we have a situation where using science or no science led lobbying the government for and they will endorse no action, nor direct or indirect action as response regardless of whether there is a binding threat to the survival of the poor as it will be taken as “that is life and that is how the market works”, which is summarized in Figure 6 below:

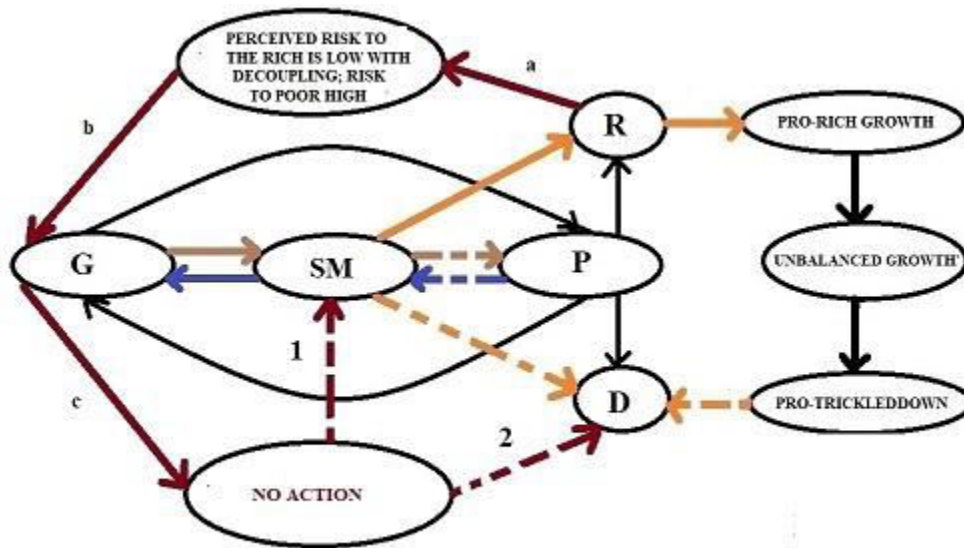


Figure 6 The economy science based liberal democracy model under inequality and low risk to the rich

We can see in Figure 6 above the following aspects: a) As the risk to the survival of the rich is low and the rich is disentangled from the threat; and even when the risk to the poor is high, then the rich/supply side of the market will lobby the government through the influence route arrow “a” to arrow “b” to arrow “c” for implementing no action, not direct action as indicated by the broken line 1 and no indirect action as indicated by the broken line 2 as now the poor is on its own as an island as indicated by all the broken arrows meeting at D; b) the rich/supply side of market behaves here as if the market is working normally and needs no government intervention; and c) this is because now the rich hopes to help the poor indirectly by the trickledown expected to be pushed down by unbalanced growth. The situation in Figure 6 above is consistent with the government response  $GR_{T4}$  expectation 6 of no government action shared in the operational expectations above when inequality markets are under threat  $T4 = be$ .

### Implications

a) If the survival of the rich/supply side of the market is at stake when facing external threats under inequality, the rich will push for extreme government responses that benefits them



whether they are in an entangled or disentangled position; and b) If the survival of the rich/supply side of the market is not at stake when facing external threats under inequality, the rich will endorse at most mild action to help the poor but only when it is entangled to the threat.

### **Food for thoughts**

1) Can we shift an inequality market to an equality market if we go disentangle less or go without disentanglements? I think yes, what do you think?; 2) If we were in an inequality market dominated by the poor, should we expect direct trickle ups to the rich if the survival of the poor was at stake under entanglement? I think yes, what do you think?; and 3) Is balanced growth possible under inequalities? I think no, what do you think?

### **Conclusions**

1) It was shown that the external threat impact framework introduced in this paper is helpful in framing how the rich can target lobbying of governments based on the level of risk to their survival to induce responses to threats in ways that meet their best interest; 2) It was indicated that when the rich face non-binding threats with entanglement they endorse up to mild government responses; 3) It was stressed that when the rich face binding threats with entanglement they will endorse full extreme government responses to ensure their survival as well as the survival of the poor; 4) It was highlighted that when the rich face binding threats with disentanglement they will endorse partial extreme government responses to ensure their survival only; 5) It was pointed out that when the rich face non-binding threats with disentanglement they will endorse a policy of no government action against the threat; and hence 6) It was described how the economic science based liberal democracy model should be expected to react and how it is linked to specific government responses when facing external shocks under inequality?

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