

This paper is one of a series of individual essays written within the conceptual constraints contained in the Podcast Syllabus for "**Forms for A Future.**" The collection of essays will become the individual episodes of the podcast.

### **Technical Version with Graphics of Podcast #13: The Power of Balance**

Edward Renner

A teeter-totter, like we see in a child's playground, provides a graphic metaphor for the key concept of the Power of Balance with respect to the distribution of wealth. The equilibrium point is where the disparity of income between the rich and the poor is in the economic self-interests of both. Neither the rich nor the poor, as a socio-economic class, would want the income gap to be any greater or lesser.

How could this be? After all, the struggle between the classes has always been to gain a greater proportion of the wealth and to win in the struggle for a greater balance of economic power. How can there be greater power through balance?

To understand the metaphor, create a mental image of a trip to the playground to use a teeter-totter. Imagine a skinny Bill Cosby at 100 pounds on one side, and his friend, fat Albert at 200 pounds on the other side. With the teeter-totter in the center position, fat Albert is firmly planted on the ground and Bill Cosby stuck high in the air.

In this example, if we let fat Albert represent all of the poor people, and Bill Cosby all of the rich people, the poor people would be firmly planted on the ground due to their far greater numbers. However, if we had the people get off the teeter-totter and instead put all of their money in a basket at their end of the teeter-totter, the situation would be reversed. Now, the rich end would be firmly planted on the ground due to large amount of money, and the poor end stuck high in the air. In this way the teeter-totter can serve as a metaphor for the current imbalance in the distribution of wealth when represented either as the number of people who are rich or poor, or as the amount of money each group has.

Now, to return to the initial example, if Bill Cosby and fat Albert were to actually use the teeter-totter it would be necessary to move the teeter-totter so that two thirds of the length of the board was on Cosby's side, and only one third of the total length on fat Albert's side. This is because two units of length times 100 pounds on Cosby's side would then be equal to one unit of length times 200 pounds on fat Albert's side. In this way the teeter-totter serves as a metaphor for the process of finding an equilibrium point for achieving balance in the current distribution of wealth.

As a starting point I would like to restrict the application of the metaphor to the distribution of wealth in the United States. Then, as a second step, I will extend the analogy to the world, and as a third and final step extend the metaphor from an economic to a political and social perspective.

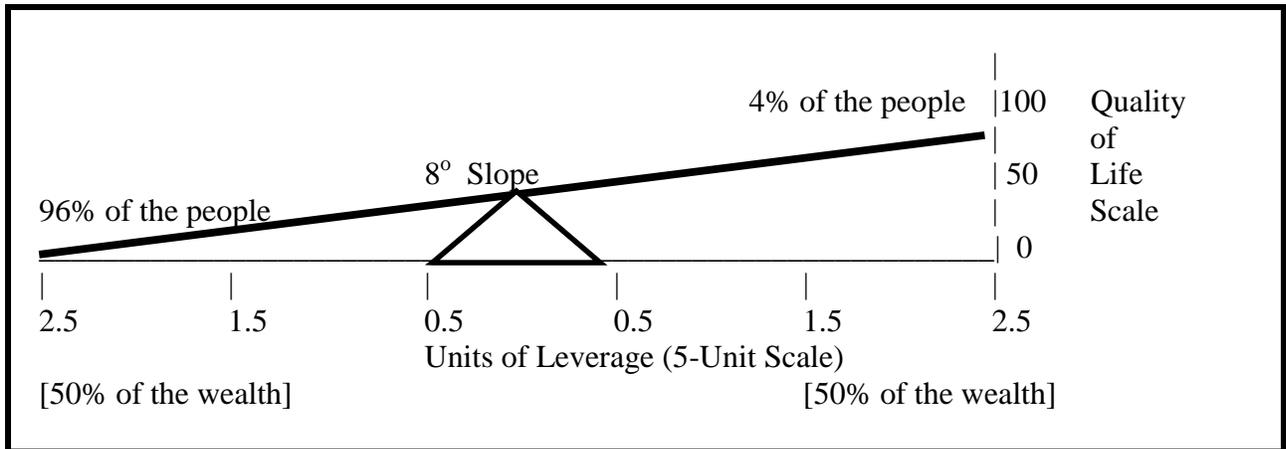
## Application to Wealth and Income in the United States

At one extreme, is a situation without any disparity of wealth. In that case, 20% of people would have 20% of the wealth, and 80% of people would have 80% of wealth. In other words, everyone would have exactly the same amount. At this extreme there is no inequality, or 0%. The other extreme is a situation where one person has all of the income or the wealth. At this extreme, there is total inequality, or 100%.

Obviously, neither extreme case is possible in reality; there will always be some degree of inequality. The degree of inequality can be measured by a number that represents the proportion of inequality that actually exists between the two absolute extremes of 0% (no inequality) to 100% (total inequality). This proportion is a mathematical calculation called a “Gini” index.<sup>1</sup>

### The Distribution of Wealth

Currently, in the United States, 4% of the people have 50% of the wealth.<sup>2</sup> If we put the richest 4% people on the right-handed side of the teeter-totter and the remaining 96% people on the left-handed side, it would be out of balance as illustrated in Figure 1. *This situation yields a Gini Index of 46%, meaning we are 46% of the way from perfect equality of wealth to a situation where one person has all of the wealth.* The teeter-totter Figures will provide a graphic illustration of the impact of various levels of inequalities of both income and wealth, and calculations of the imbalance as way visualize the impact of their Gini Indexes.

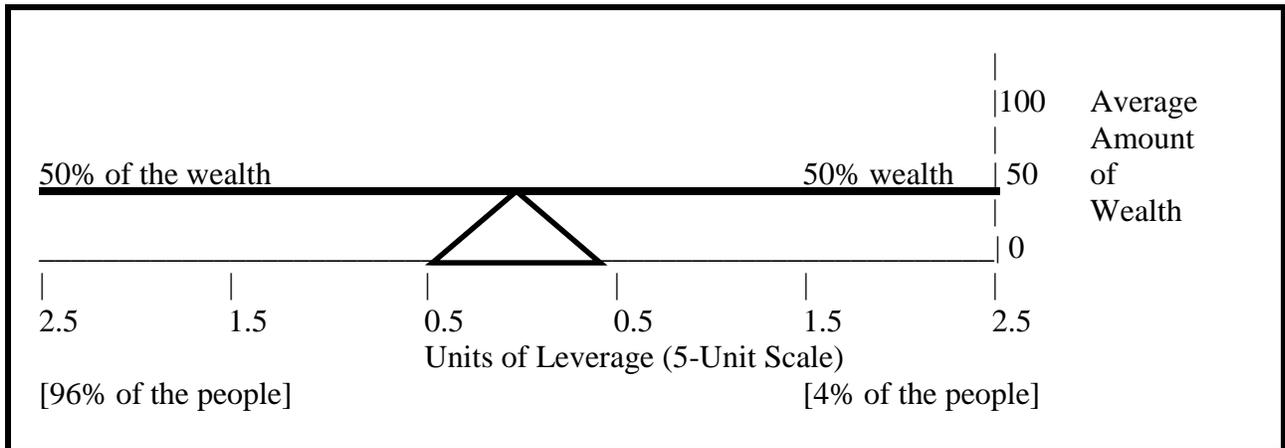


**Figure 1: Gini Index 47%**

Counting each person as one unit of weight, the net downward force on the ground of the left side containing 96% of the people would be their combined number times the length of the lever less the combined weight of the 4% on the other side times the length of the lever. With the fulcrum in the middle of a five-unit teeter-totter the net weight against the ground would be:

$$(96 \times 2.5) - (4 \times 2.5) = (240) - (10) = 230 \text{ units}$$

However, if we replaced the people with their money the teeter-totter would be in balance since 50% of the total wealth is in the hands of each group. This is illustrated in Figure 2 where the 4% people, represented by the money in their pockets, balances the 96% people represented by the money in their pockets. This balance point yields a Gini Index of 47%. For the purposes of this illustration I am simply using the current figures for the distribution of wealth in the U.S. without any judgment about whether this is an appropriate or inappropriate balance point based on the distribution of wealth.



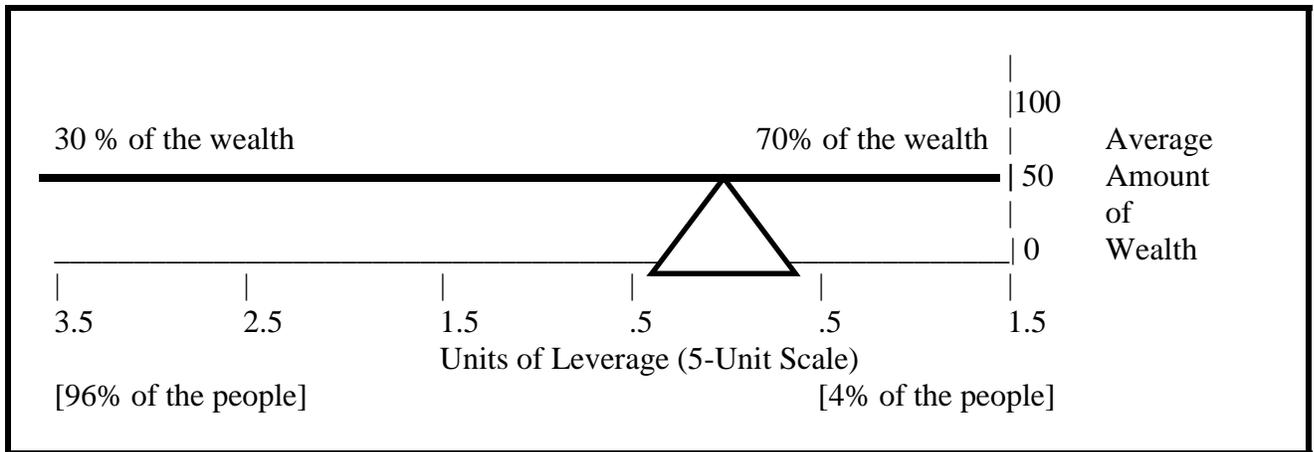
**Figure 2: Gini Index 47%**

Again, the formula is the weight of the wealth on the left times the leverage minus the weight of the wealth on the right times the leverage.

$$(50 \times 2.5) - (50 \times 2.5) = (125) - (125) = 0 \text{ (or balance)}$$

### Political Right and Left

One of the consequences of right-wing politics, as illustrated by the policies of the Republican Party, and in particular the Bush administration, is to create a situation in which the richest 4% have even increasing proportions of the wealth. For illustrative purposes, consider a situation where the richest 4% of the people increase their share from 50% to 70% of the wealth. Under this distribution of wealth, if the people were to be replaced on the teeter-totter by their money, the 4% of the people on the right-hand side would have 70% of the money, and the remaining 96% of the people on the left-hand side would have 30% of the money. In order for the teeter-totter to be balanced in this situation the fulcrum would have to be moved to the far right, 7/10s of the way toward the extreme right-hand side. Clearly, the greater the percentage of total wealth owned by the rich, the further to the right the fulcrum needs to be placed. *This distribution of wealth yields a Gini Index of 67%, and is illustrated in Figure 3.*

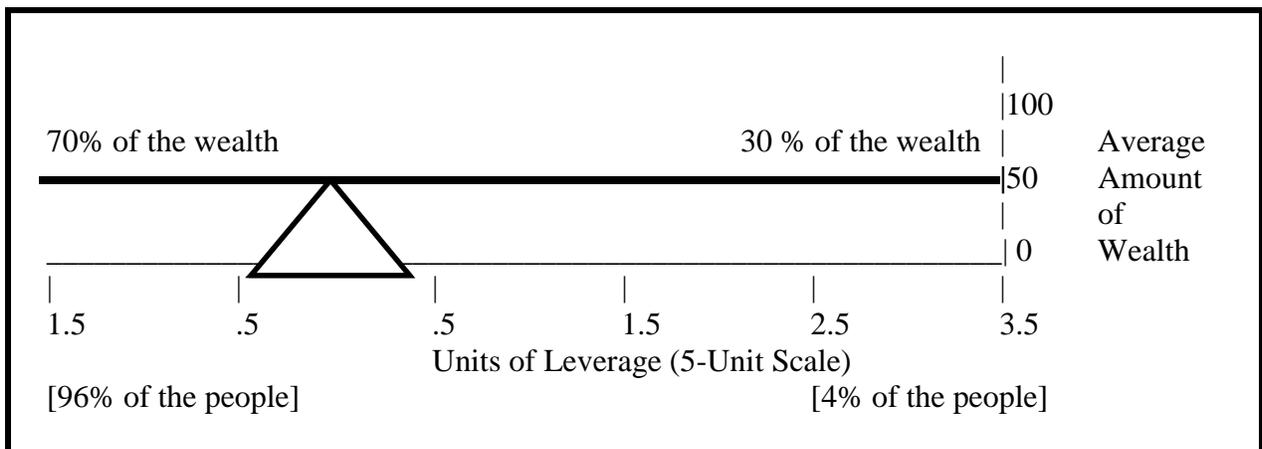


**Figure 3: Gini Index 67%**

The formula for the balance point is the weight on the left side multiplied by the leverage less the weight on the right side multiplied by the leverage.

$$(30 \times 3.5) - (70 \times 1.5) = (105) - (105) = 0 \text{ (or balanced)}$$

This image of right-wing politics can be contrasted with an equivalent example of left-wing politics in which the 4% of the richest people have their share of the wealth reduced from 50% to 30%. Thus, the remaining 96% of the people would have 70% of the wealth. If the number of people on the teeter-totter are, again, replaced by their wealth, as in Figure 3 above, the fulcrum would have to be moved 3/10s of the way in from the left side in order for the teeter-totter to be in balance. *This distribution of wealth yields a Gini Index of 26%*, and is illustrated in Figure 4.



**Figure 4: Gini Index 26%**

The formula to show the balance point would be the weight on the left side multiplied by the leverage less the weight on the right side multiplied by the leverage, which is the reverse of Figure 3.

$$(70 \times 1.5) - (30 \times 3.5) = (105) - (105) = 0 \text{ (or balance)}$$

Neither Figure 3 nor 4 represents the extreme right- or left-wing political position. The limiting case in Figure 3 is where one person has all the wealth. The limiting case for Figure 4 is captured by the phrase: “From each according to their abilities and to each according to their needs.” Neither limiting case is viable. If one person had all the wealth there would not be any economy worth having, and if every free-loader had equal wealth with every one else there is no incentive to be a worker rather than to be a free-loader and no economy worth having. So, having eliminated both extremes, the only question is where the fulcrum should be placed, and by what standard of judgment.

### Slope

We know from modern history that both extremes are unworkable. Under extreme right-wing conditions, where free market capitalism is unrestrained, the exploitation of the poor by the rich results in popular unrest and eventual revolution, and more recently in Latin America the emergence of democratically elected left-leaning governments. Variations of Kings, Feudal Empires, and Banana Republics have come and gone. At the other extreme, left-wing philosophies for the more uniform distribution of wealth could only be imposed through highly regulated economies, and usually dictatorial régimes. Without the individual incentive of extra wealth for innovation, industriousness and hard work, progress stalled. The eventual triumph of a Democratic/Capitalist mixed economy documents the objective reality that some middle ground is probably ideal; at least that is the lesson from modern history. Thus, the working assumption in this essay is that some amount of income and wealth inequality is desirable and that the disparity must be regulated to some degree to keep a measured balance. The question is not whether there needs to be a mixed economy, but rather over the degree and nature of regulation. The question is “how much?”

The debate over the distribution of income and the degree of income disparity is often cast in terms of political philosophy, as above, in the capitalist vs. Marx example. Sometimes it is cast in terms of religious values or moral philosophy about what is “right” in an absolute sense. But, there is a “neutral” alternative of seeking a purely quantitative answer. What position of the fulcrum produces the highest quality of life by providing the level of income disparity that results in the maximum benefits? How much sharing of the wealth by the rich is in their own best interest? And, how much disparity of income between a worker and the boss, or between the boss and the owner, is in the poorer of the pair’s best interest? Where is the balance point? Political and moral philosophies put aside because, where is objective equilibrium in purely economic terms? There are two considerations to continue this discussion, both of which may be diagrammed by continuing to use the teeter-totter as a metaphor.

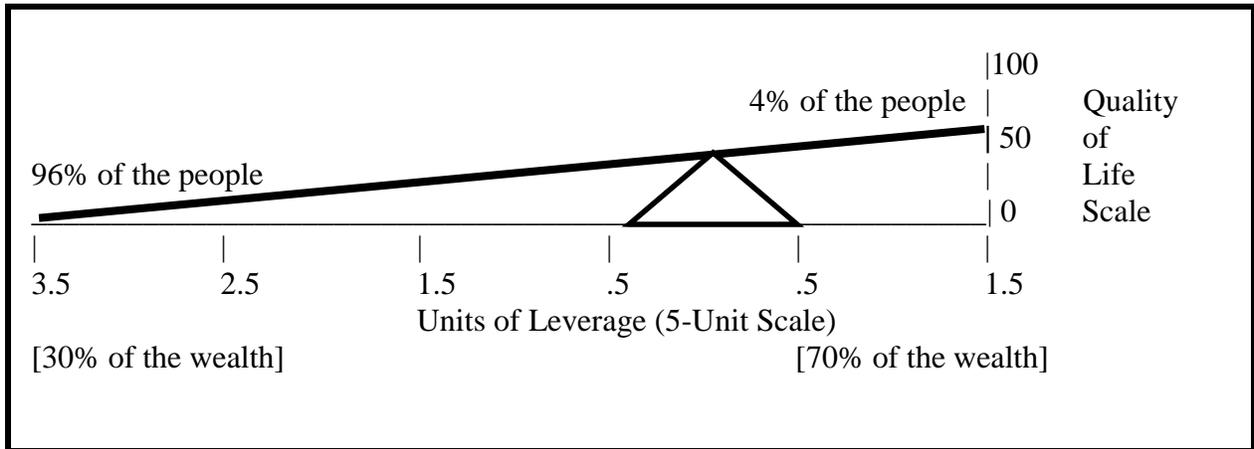
### (1) Imbalance in the Distribution of Wealth

Imbalance is created when one group has proportionately more wealth than their absolute number. Figure 1 presented an illustration of the current reality in the US where 4% of people have 50% of the wealth. Under those circumstances, with the fulcrum in the center to balance collective wealth, 96% of the people were on the left and 4% of the people were on the right

resulting in a downward force of 230 units pressure against the ground resulting from the imbalance in the distribution of the weight represented by the number of people. See Figure 1 with a Gini Index of 47%.

$$(06 \times 2.5) - (4 \times 2.5) = (240) - (10) = 230 \text{ units}$$

However, Figure 3 presented an illustration where 4% of the people have 70% of the wealth. Under these circumstances the fulcrum is to the far right. If we now replaced the wealth of the people by their actual numbers, to make it comparable to Figure 1, 96% of people would be on the left and 4% of the people would be on the right. See Figure 5 with a Gini Index of 67%.



**Figure 5: Gini Index 67%**

Under these conditions, with the fulcrum on the extreme right, the result is a downward force of 330 units of pressure against the ground resulting from the imbalance of the distribution of weight when represented by the number of people.

$$(96 \times 3.5) - (4 \times 1.5) = (336) - (6) = 330$$

The implication of re-drawing the illustration from Figure 3, with a Gini Index of 67%, by replacing the total wealth with the actual number of people, is to display the force with which the poorer proportion of people are slammed into the ground. The effect of increasing the income disparity from 50% to 70% is to increase the impact of poverty from 230 to 330 units of force, an increase of 100 units. However, the ground is not a good analogy for it is a “hard landing.” In the real world, the poorest proportion of people are forced below the poverty line, if you will, below ground level. A better analogy would be to imagine the teeter-totter placed in a swimming pool rather than a playground. Thus, there would be a “softer landing,” such as provided by a social service net. The buoyancy required to offset the downward pressure of 330 units, in the right-wing case, would be a cost to be subtracted from the overall wealth. To the extent that those forced under the water, or under ground to retain the language of the original example, also creates an underground economy in order for them to survive, such as crime, this represents an additional drain on the total wealth and must be subtracted as an addition cost.

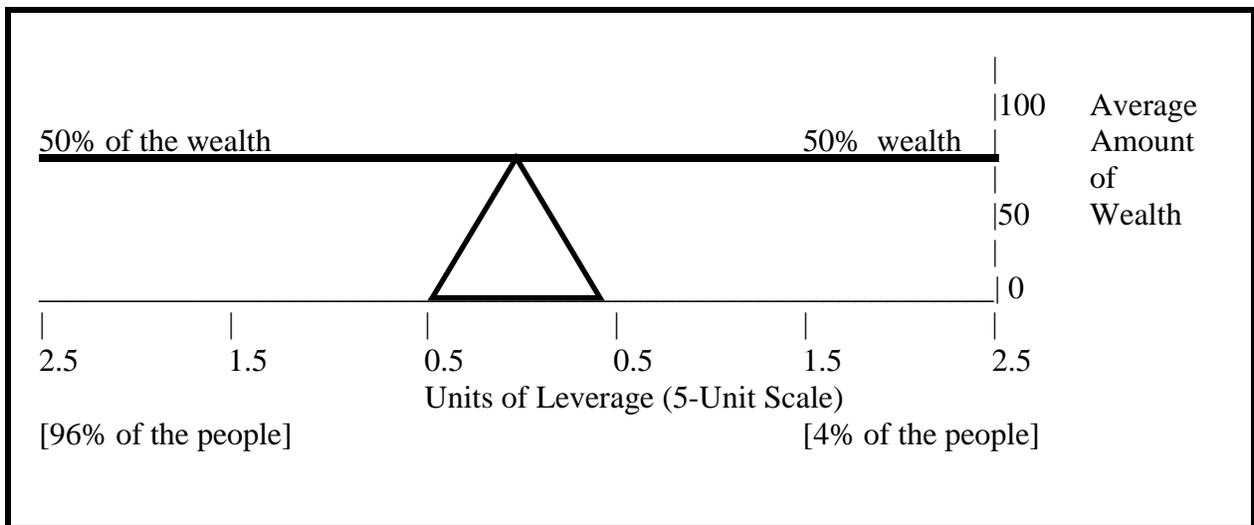
This shift to the right may be contrasted with Figure 4, with a Gini Index of 26%, which illustrates an equivalent shift toward the left, where the richest 4% now only have 30% of the wealth (instead of 50%), and the remaining 96% of the people have 70% (rather than 50%) of the wealth. If we now replaced the wealth of the people by their actual numbers, to make it comparable to Figure 1, 96% of people would be on the left and 4% of the people would be on the right. Under these conditions, with the fulcrum on the far left, the result is a downward force of only 130 units of pressure against the ground resulting from the imbalance of the distribution of weight when represented by the number of people.

$$(96 \times 1.5) - (4 \times 3.5) = (144) - (14) = 130$$

The effect of decreasing the income disparity by increasing the proportion of the wealth of the poorest 96 % of the population from 50% to 70%, is to decrease the impact of poverty from 230 to 130 units of force, a net reduction of 100 units.

(2) Imbalance and the Total Amount of Wealth

The primary justification for having a slope, or imbalance, in the distribution of wealth is that the imbalance creates the innovation that produces additional wealth. The argument is that without the capacity to profit from enterprise, enterprise will not thrive. The justification is that growth increases wealth for everyone; both the rich and poor will be better off. This effect can be captured graphically by increasing the height of the fulcrum on the teeter-totter as shown in Figure 6, which maybe contrasted with the shorter height of the fulcrum in Figure 2.



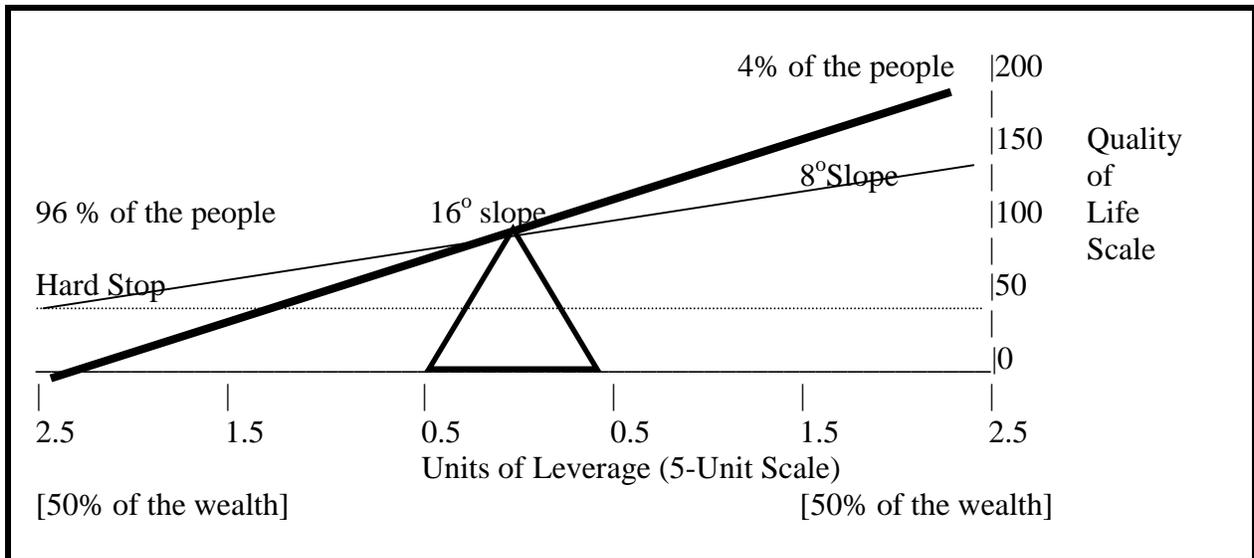
**Figure 6: Gini Index 46%**

However, a correlated consequence of Figure 6 is that there is a greater range of swing on both the left and right side of the teeter-totter. When the height of the fulcrum is very low, there can be very little discrepancy between the rich and poor. With little over all wealth, represent by a very low fulcrum, the discrepancy in wealth could be as little as whether a person has or does not have jam to put on their bread. Diamond describes the highlands of New Guinea that have



globalization is to be good for the world, the slope cannot be allowed to continually get steeper without either a corresponding shift of the fulcrum to the left, decreasing the proportion of people who are poor, or by creating a new higher stop point by raising the floor, in order to ensure that both the rich and poor gain from new technology and the creation of new wealth.

One strategy is to increase the amount of wealth associated with the “Hard Stop” point at the same relative amount as the gain in wealth on the right side. The result of doing so is to keep the slope as a constant (such as shown in Figure 1 before the increase in height of the fulcrum) and provide equal benefit to those on both the left and on the right side of the teeter-totter. This is illustrated in Figure 8, where the stop point is “re-set” to 50 units of quality, rather than at the zero level of Figure 1. While the right side of the teeter-totter increases from 64 units in Figure 1 to a corresponding level of 114 units in Figure 8, simply by holding the slope constant by raising the poverty line (e.g., minimum wage). Under these conditions both the rich and poor are better off in absolute terms by 50 units, but the level of relative disparity between them has been reduced.



**Figure 8: Gini Index 26%**

This will also reduce the force with which the poorer end is forced into a hard landing from the 230 units of Figure 1, to 130 units, yielding a Gini Index of 26%.

$$[(96 \times 2.5) - 50] - [(4 \times 2.5) + 50] = 130$$

The other strategy is decreasing the proportion of the population who are poor by redistribution of newly created wealth. For example if, after the height of the fulcrum is increased through the addition of new wealth, the poorest 76% of and the richest 24% of the people, each had 50% of the wealth (in contrast to the 96% vs. 4% split that currently exists in the US) then the downward force of the hard landing would be correspondingly reduced from the 230 units shown in Figure 1 to the smaller amount of 130, for a Gini Index of 26%.

$$(76 \times 2.5) - (24 \times 2.5) = 130$$

Both of these alternatives are left-wing politics that are the functional equivalent of moving the fulcrum partially toward the left as represented in Figure 4.

### A Qualitative Application

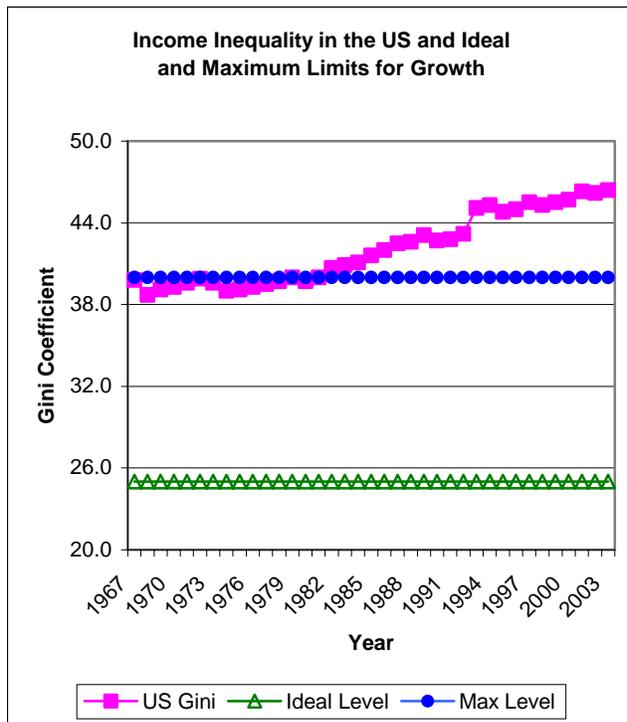
The quantitative formulas, however, are not necessary for a conceptual application of the model. The neoconservative policies the Bush administration of forcing the fulcrum toward the extreme right are plunging additional people into a “hard landing.” The budget cuts to social service programs produced by the Iraqi war and the budget deficit are eliminating the programs required for a “soft landing.” The outcome is increased hardships of many, for the additional financial gain of a select few who have used their wealth to gain greater political influence. The relaxation of environmental standards, which translates into reducing the requirement for treating sustainability as a production cost, has the net effect of providing temporary wealth for a few with huge costs to be born by the many in the future.

These decisions reflect the less restricted free hand of post-modern corporate power and wealth - - Enron like -- to shift the fulcrum of political and social balance further to the right. The net effect is a drift toward the laissez-fair economics (described in Podcast #4) that produced the Robber Barons of the Industrial Revolution, and eventually the emergence of the counter-force of the New Deal of the 1930, and the Great Society of the 1960s. Both of these shifted the political/social fulcrum back toward the left. This counterforce, however, was short-lived. The United States missed a golden opportunity to use the prosperity of the last half of the 20th century to achieve a wider distribution of wealth. As one example, at the end of the period of the Great Society an individual who worked 43 hours a week at minimum wage would have been at the poverty line for a family of four. Today, it takes more than 72 hours of work each week at minimum wage to be at the same point. The increased wealth from the increased productivity of the digital revolution that has flattened the world did not raise the floor, but has actually lowered it as illustrated in Figure 7.

The time has come, again, as it was during the New Deal, to reverse the mechanisms which allow creative enterprise to dump increasing numbers of people into greater relative levels of poverty while keeping ever increasing shares of the benefits for themselves. Rather, the standard for a mixed economy should be to continuously raise the stop-line, through such forms as universal health-care and no children living in poverty, by regulating the slope of the teeter-totter. Similar to a continuously increasing graduated income tax, the outcome would ensure that the fruits of progress are shared by both the companies and their workers, and that greater, not lesser, economic equality becomes a reality.

In terms of inequality of income, the US has been drifting toward higher a higher Gini Index for over the past 30 years. At its current level of 47% it is the third largest in the world, second only to Brazil and Mexico.<sup>3</sup> At 47% it is well above the ideal level of 26% and has exceed the maximum level for economic efficiency of 40%.<sup>4</sup> See Figure 9.

**Figure 9**



Aiming for the lower end of the Gini range is important because a nation obtains the same level of growth at lower levels of inequality, which also allows for the reduction of poverty at a faster rate.”<sup>5</sup> Given that we are now living in a global economy, investments in health, education and the environment to reduce inequalities within the national boundaries of the United States is essential, but not sufficient.

A Gini index in the US of 47%, that is getting larger every year, is limiting the capacity of our country to achieve its dream (some would say destiny) of exporting to the world the potential virtues of democratic capitalism. If this is to be our destiny, then it is imperative, to repeat the quote from Cornel West’s book Democracy Matters,<sup>6</sup> to:

“... shore up international law and multilateral institutions that preclude imperial arrangements and colonial invasions... (and that) facilitate the principled transfer of wealth... by massive investments (here at home) in health care, education...and the preservation of the environment (p.62).”

World poverty, no less than national poverty, provides fertile ground for the seeds of world social distress that divert the world’s resources into insurgency, and the resources of the US into maintaining a large army for counter-insurgency.

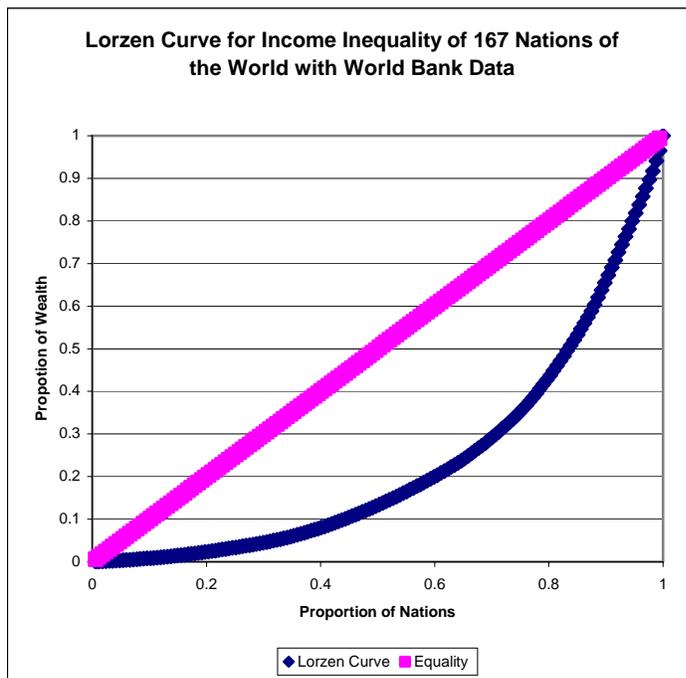
### **Application to the World Economy**

The application of the metaphor of the teeter-totter to the world is not a simple matter of exchanging the people of the world for the people of the United States, and the distribution of the wealth of the world for the distribution of wealth in the United States. The people of the world are all members of nation states. For the application of the model to the world, it is nations and their national wealth that are the elements to be placed on the teeter-totter. Thus, there is an intervening variable. Each nation has its own set of teeter-totter dynamics that it must juggle within its own internal political reality, i.e., the reality that determines where each national fulcrum lies in terms of the political left versus the political right position. This relative position of the fulcrum, whether national or world-wide, determines the degree of regulation that takes place between the two unworkable extremes. The question is not whether there needs to be a mixed national or world economies, but rather the degree and nature of the regulation.

The inequalities of income between the nations of the world are larger than the inequalities of income within any individual nation of the world. When the Gross National Income (GNI) per capita of the 167 nations of the world is used as the reference point, rather than the income of individuals within a nation, the Gini Index is 53%.<sup>7</sup> This is well beyond the point of global economic efficiency (See Figure 10 below). It is in the self-interests of the rich nations as well as the poor to reduce this discrepancy. There are direct parallels between the inefficiencies that result between the people within a nation, and that result between nations within the context of our new global economy. When the gap between the rich and poor widens excessively:<sup>8</sup>

- Rent seeking and predatory activities tend to rise within a nation, as does the parallel of resource extraction and predatory activity between nations.
- High land concentration and a landless majority result in high shirking and supervision costs and the erosion of ecologically fragile lands within a nation as does the parallel of foreign ownership and production control in the activities between nations.
- There is a strong relationship between inequality and crime rates within a nation, as there is a parallel between the opposing philosophies of economic fairness between ethnic and national groups with a rise of terrorism

**Figure 10**



There is no need to continue the list. The shift from a national to a global frame of reference simply amplifies the economic consequences of income and wealth inequalities from one of internal national domestic policy, to one of external national foreign policy. Both the rich and poor nations of the world have a vested self-interest in reducing the size of world income and wealth inequalities to a much smaller level, to allow for both responsible attainable growth compatible with environmental constraints, and to maximize world poverty reduction.

The recent rise of left-leaning governments in South America gives force to the growing popular resistance to economic exploitation and

oppression, either from within or outside national boundaries. The democratic election of these governments are perhaps a warning that pushing the fulcrum too far to the right is not in the best interests of either the relatively wealthy or those who are relatively poor.

Given the current economic reality of globalization, corporate power is escaping national regulation and in so doing is driving the fulcrum further and further to the right. The current effect is to maximize the wealth and power of those on the right hand side, the wealthy side, of the teeter-totter. Rather, there is an empirical point of balance that is in the best economic self-interest of both the rich and poor socio-economic classes in the US (and the rich and poor nations of the world) that is far to the left of where we have drifted. We must reverse the distribution of income and wealth based on simple economic facts, facts that are completely independent of the moral imperative of most religious and social philosophies for doing so.

### **Application to Political and Social Realms**

To follow the economic advise of Thomas Friedman (The World is Flat) of unrestricted growth by attempting to win the economic balance of power will produce the political instability described by Gwynne Dyer (Future: Tense) that will lead to a collapse of world order, and will produce the social/environmental collapse described by Jared Diamond (Collapse). The economic, political and social future lies in achieving the power of balance, not in winning the balance of power.

Thus, it is insufficient to apply the simple teeter-totter model to the world economic scene without also including reference to the other two core concepts required for actually having a future. The first concept, world citizenship not citizenships of the world (Described in Podcast # 12), captures the need for a global basis for a mixed economy that will balance the well-being of the nations of the world with national self-interest. In this political context, the duplicity of the United States of claiming to be fighting for democracy while covertly undermining the democratic process both at home and abroad is both gross, and grossly apparent to everyone else in the world. For the neo-conservatives to claim they are supporting democracy, while behaving in exactly the opposite way, is to further the pursuit of a failing dream of Empire whose time has long passed.

The other core concept of treating knowledge as an element of the public domain and not as private commodity (to be described in the next Podcast, # 14) captures the need for innovation to serve the power of balance, and not winning the balance of power by a few who will use the advantage to create individual wealth at the cost of greater national and world instability. By definition globalization cannot be seen simply as an economic activity because it has both political and social elements; the part and the context of which are one and the same. Stated alternatively, the three core concepts of this section:

- Building world citizenship NOT citizenships of the world
- Achieving the power of balance NOT winning the balance of power
- Establishing knowledge as a public domain NOT a private commodity

are a super-ordinate set of simultaneous principles in which the national teeter-totters of the world are embedded. Suffice it to say, as a prelude to future podcast, that the most dangerous and destructive force in the world today is the USA under the Republican leadership of George Bush. As such, more than anyone else in the world, the American people have the obligation to step

forward and take back their country so that, if there is a god, she could truly Bless America. Unfortunately, nothing could be further from the truth today.

### Conclusion

*In a time-compressed world, technological advancement and change occur at an ever-increasing rate. These changes create an ever greater potential for additional wealth. In the postmodern era of globalization we have now entered, these two forces have escaped essential regulation and are undermining the equitable balance between general well-being and the economic self-interest of the powerful corporate elite. The simple conclusion is that in the globalized postmodern world these two trends need to be counterbalanced by a movement toward left-leading social and political policies and structures. But, the exact opposite is happening as the power of wealth and globalization are shifting the political and social fulcrum to the right. This is movement in a direction leading toward collapse. Achieving the power of balance, not winning the balance of power is an essential step.*

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<sup>1</sup> A clear presentation of the Lorenz Curve and the Gini Coefficient may be found in wikipedia: [www.wikipedia.org/wiki/Gini\\_coefficient](http://www.wikipedia.org/wiki/Gini_coefficient), and [www.wikipedia.org/wiki/Lorenz\\_Curve](http://www.wikipedia.org/wiki/Lorenz_Curve).

<sup>2</sup> United for a Fair Economy. Wealth Inequality Charts: [www.faireconomy.org](http://www.faireconomy.org).

<sup>3</sup> World Institute for Development Economic Research. World Income Inequality Database: [www.wider.unu.edu/wiid/wiider.htm](http://www.wider.unu.edu/wiid/wiider.htm)

<sup>4</sup> Giovanni Andrea Cornia and Julius Court. Inequality, Growth and Poverty in the Era of Liberalization and Globalization, Policy Brief No. 4. The United Nation University, 2001: [www.wider.unu.edu](http://www.wider.unu.edu).

<sup>5</sup> See 4 above.

<sup>6</sup> Cornell West. Democracy Matters: Wining the Fight Against Imperialism. Penquin Books, 2004.

<sup>7</sup> Original calculations by the author from the World Development Indicators Database. World Bank, 2006: [www.worldbank.org](http://www.worldbank.org).

<sup>8</sup> See No. 4 above.