

The end of Laissez-Faire economic policy and rise of algorithmic management and politics.

Tariq Khan
Department of Economics
University of Nebraska at Omaha,
Omaha, Nebraska, USA

"Since emotions are few and reasons many, the behavior of a crowd can be more easily predicted than the behavior of one person can. And that, in turn, means that if laws are to be developed that enable the current of history to be predicted, then one must deal with large populations, the larger the better. That might itself be the First Law of Psychohistory, the key to the study of Humanics."

--Isaac Asimov, *Robots and Empire*

"In all the known history of Mankind, advances have been made primarily in physical technology; in the capacity of handling the inanimate world about Man. Control of self and society has been left to chance or to the vague gropings of intuitive ethical systems based on inspiration and emotion. As a result, no culture of greater stability than about fifty-five percent has ever existed, and these only as the result of great human misery.... Psychohistory was the quintessence of sociology; it was the science of human behavior reduced to mathematical equations. The individual human being is unpredictable, but the reactions of human mobs, Seldon found, could be treated statistically."

--Isaac Asimov, *Second Foundation*

"The important issue is not how much inequality there is, but how much opportunity there is for individuals to get out of the bottom classes and into the top. If there is enough movement upward, people will accept the efficiency of the markets. If you have opportunity, there is a great tolerance for inequality. That has been the saving grace of the American system."

--Milton Friedman

"No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable."

--Adam Smith

"Carol Anne - listen to me. Do NOT go into the light. Stop where you are. Turn away from it. Don't even look at it."

--Diane, *Poltergeist*

In the November 2019 edition of *Scientific American*, article author Bruce Boghosian notes the research of his own and others in the ground-breaking article "*The Inescapable Casino*" (pgs 72-77) that indicate that all economic systems involving transactions between agents inevitably result in oligopolies and thus must have an oversight mechanism akin to governmental intervention to prevent such suboptimal oligopoly systems in the form of taxation, redistribution etc... The below bullet points are taken directly from this amazing work and incredibly powerful and important results and conclusion:

- "Today Oxfam estimates that 26 individuals possess as much household wealth as the lower half of the world's population combined, approximately 3.5 billion people."
- "Papers this decade describe the **affine wealth model** where **there is an inherent mathematical structure of economic transactions that they inexorably concentrate wealth, resulting in oligarchy**. This is seen over and over in tests using numerical simulations and comparing models to the real world economy."

- “After a large number of transactions, one economic agent ends up as an oligarch holding practically all the wealth of the economy and the other 999 agents in the test end up with virtually nothing. The lower someone’s wealth ranking, the faster the decrease. In the long run, all participants in this economy except for the very richest one will see their wealth decay exponentially. Inequality inevitably grows more pronounced because of the collective effects of enormous numbers of seemingly innocuous but **subtly biased transactions.**”
- “In 2017, a team at Tufts University modified the model slightly to more closely resemble reality including changes equivalent to adding a flat wealth tax to the wealthy and a complementary subsidy for the poor. These changes showed that oligarchy no longer resulted.”
- “The wealthy enjoy systemic economic advantages such as lower interest rates on loans and better financial advice, whereas the poor suffer systemic economic disadvantages such as payday lenders and a lack of time to shop for the best prices. **Whenever the influence of wealth-attained advantage exceeds that of redistribution a very small fraction of people will possess a large fraction of societal wealth.** The onset of partial oligarchy is in fact a **phase transition** akin to the same in physics parlance. This type of phase transition was apparent following the breakup of the Soviet Union in 1991 where formerly communist countries became partial oligarchies almost overnight. 10 of these 15 former Soviet republics are oligarchies.”
- “These mathematical models demonstrate that far from wealth trickling down to the poor, **the natural inclination of wealth is to flow upward, so that the “natural” wealth distribution in a free-market economy is one of complete oligarchy. It is only redistribution that sets limits on inequality. Only a carefully designed mechanism for redistribution can compensate for the natural tendency of wealth to flow from the poor to the rich in a market economy. Redistribution, separate from taxation, is best thought of as the flow of wealth from people to people to compensate for the unfairness inherent in market economies.**”
- “In conclusion they demonstrated that their hyper accurate models gave rise to economies that were anything but free and fair, something that should be a cause for alarm and a call for action.”

Years of management research and experience indicates a potential analogous condition to the affine wealth model as it relates to the power dynamic in organizations between teams. Perhaps the best example exists in small and medium sized information technology firms where there are influential and mission critical “I.T. architects” that, having often having built the foundations of the technology platform and having attained a level of social clout given their skillsets, will “drift” away from the day-to day operational and business needs of the company. Work, that is just as critical, if not even more so, to establish goodwill and retain and create revenue, will fall inordinately on “lower” ranked engineering and especially on front-line Operations staff as the architects with a sense of bravado or hubris, whether unfounded or not, will feel empowered and unrestrained to move toward “ivory tower” and/or resume-building and exciting projects and certifications and “divine initiatives” ala Carol Anne, the little girl character in Steven Spielberg’s film *Poltergeist* being pulled “toward the light.” Now I am not dwelling on Lord Acton’s famous line where “all power corrupts,” but rather trying to establish a pattern seen at the levels of teams, economies, and governments as the individually motivated actors in populations, as indicated in the noted research, drift over and over toward systems matching the distribution of a mathematical “power rule” (many at one end and very few at the top end) where oligopolies exist of power, wealth, and/or influence.

Small groups of oligarchs in a given economy, like that seen after the Soviet Union breakup, are thus analogous to the small teams of architects where the wealth is comparable to the amount of pay, amount of free time, amount of influence, the ability to choose their work, and the amount of time available to them to train and work on certifications etc... as compared to the other teams or departments in an organization tasked and required to keep day-to-day functions running.

Note the analogy is not made to simply an owning and working class as perhaps that classic dichotomy is too simple. The advantages of the wealthy or owning classes to remain wealthy do exist, as

noted in the research, but the key to the pattern is less about lack of opportunity but rather that the system will always end up in the same configuration – always, and that, specifically to my point, that this pattern appears to actually be present in a large amount of systems! Regardless of scale or psychologies involved, populations that engage in transactions that create minor degrees of difference in wealth, information, or power will drift into oligopolies unless governed. Perhaps here we can take joy in the age-old lesson that acknowledging or understanding a problem is the first step in addressing it.

We can even consider the same pattern as existing amongst members of corporate boardrooms. Without legal safeguards for investors and the general employees in an organization, more and more corporations will take earnings revenue to simply “buy back” stocks of the company an act that simply enriches the board at the opportunity cost of re-investment into the organization or basic research to improve the company’s product bonuses to reward employee talent. An ungoverned board with too much power can go so far as to give themselves not merely exorbitant salary increases or perks on the company’s expense but to even conspire, in cabal like fashion, to sell off their very company guaranteeing only themselves lucrative “golden parachute” exit clauses, bonuses, and stock buyouts, while the entire company is sold, usually at less than actual value, as it is sold for its parts or into private equity or foreign ownership. The inherent nature of “inside information” bias prevalent to those involved within a relevant industry or even simply in a large or busy city, is nothing compared to ungoverned drift in power dynamics where the reward as a percentage of income required to live comfortably until death is easily within reach amongst the fortunate members of the wealthy and powerful extreme. Now the noted research on economies inherently moving toward polarized oligopolies, in essence implies that the Free Market alone, aka *Laissez Faire* policies, will always lead to extreme imbalances of wealth and power.

Note how the United States Constitution is built as a power-sharing system with inherent “checks and balances.” What is not imagined is that the global political environment could become so large and with change so rapid that this design could be strained to its limits. For example, who could imagine that wealth inequality could become so extreme that a “foreign power” could develop with a monarch/leader/tyrant with control of individual or personal wealth of over \$200 billion. This is the estimate of the wealth of Russian president Vladimir Putin. The obvious concern being that such an environment invites not only the potential for corruption where representatives of institutions in competitor states might be “bought” or compromised with the temptation of enough wealth to retire and enough wealth to not only avoid any local disdain but to actually “escape” easily to havens like Switzerland or Singapore. The environment strains the ideals of national and community loyalties and ethics. The situation in fact could be so grave that the risk exists of an entire political party or assembly to be bribed or bought outright. As noted by Francis Fukuyama, those historical motivators or lane-markers for moral community accepted behavior fade as concepts of nations, tribes, institutional loyalty, and family name diminish in a single world where an individual is offered an opportunity to never work again, retire comfortably, or wealth and security theoretically for the rest of their and their family’s life where competitive pressures to survive have peaked in a global world of 7 billion players. Just as stranded starving sailors of history self-justified cannibalism over religious or moral beliefs, individual members of groups historically considered to be principle and loyalty driven, can be seen to drift toward coercion and subversion. Here again, we see this pattern of drift and the same generalized need for governance at a national, multi-national, and global level where legal, financial, and international systems must adapt and strive to contain literal contagions of corruption and vice that, as if in an eternal yin-and-yang struggle, attempt to penetrate and overwhelm the vary nature of the structures supporting these systems.

Now a counter argument could be offered where systems that allow, permit or fall victim to such threats as corruption or competition should be allowed to fail to be replaced, hopefully, by even better and more robust systems. But then we risk so much aggregate pain and suffering, if not literal warfare and destruction, as our world falls into a never-ending cycle of peak, decline, overthrow and repeat as external and less powerful parties apply the ancient lesson of “the many having power over the few” to eliminate a party or system in power no matter what level of power they may hold.

Such concepts cannot be ignored by the Western world societies for example in the United States where the American percentage of the global population will continue to decline as world population exceeds 7 billion versus a United States domestic population of 329 million or only 4.27% of the total world population.

Now logically we can argue that the result of a society with such resource inequality is both ethically and logistically suboptimal for any gene pool or society in terms of productivity, happiness, or net health of the overall gene pool. In such an oligopoly system we have an excess amount of resources owned and available to only the small and powerful class. A gene pool would in theory “despise” this situation as it leads to limited options for “survival from variation” of the aggregate gene pool (think royalty inbreeding from centuries past). Thus, what is the evolutionary “circuit breaker” that upends this literally stale system or polarized society? Ultimately it again appears to be conflict or war in the form of competition or aggression from an external tribe or society or internal strife. Ultimately this is the inevitable outcome in a Universe of scarcity where successful populations, by definition, continue to grow, expand, and thus require additional resources: land, water, food, etc...

Now one can argue that this never-ending appetite for resources in theory might actually promote “survival of the fittest” evolution (i.e. only the strongest/best survive into the future) and if a society, for good or bad, lets itself become so unequal, then another more efficient society may justifiably destroy it or assimilate it; again for good or bad. Our example unequal society may also, in theory, be destroyed internally from internal revolution or conflict after which we will likely then again simply see a restart of the same internal competition for available resources. But how much pain, death, and suffering must occur to “feed” this sort of Sisyphean or eternally repeating cycle that becomes akin to using lives simply for a large-scale sport, competition or “machine” for the “selfish gene”?

Thus, the sharing and acknowledgement of this research and its extreme importance, and the likely commonality of its pattern amongst many systems that I have tried to demonstrate of this research, cannot be understated. For these teams may have not only tapped on methodologies of how to optimally solve a national economy, but perhaps also how to structure or govern any team, business, society, and/or population and thus hopefully also the elimination of the corresponding waste and suffering associated with sub-optimal systems and the means required to replace them.