The Conflict of Economic Efficiency and Maximum Profit

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Adam Smith was the father of scientific, "free market" economics. He wrote in 1776, when Isaac Newton's physics of motion was the scientific paradigm of the age. Newton's laws are zero-sum, which means that nothing gains except as something else loses. For example, Newton's Third Law states, "every action produces an immediate, equal and opposite reaction". In a baseball game, a winning team scores +1 in the league standings, while the losing team scores -1. In Smith's ideal and efficient, zero-sum economic state, no one can become better off without making some one else worse off. Smith adopted Newton's action-reaction law as the law of supply and demand.

Newton's laws describe why a spinning gyroscope maintains its stability (were it not for friction, a gyroscope might spin forever). Post-Smith economics in effect compares a free market that maintains "economic efficiency" to a spinning gyroscope. Profit-making acts as an "inefficiency" (like friction) that threatens its balance. Smith and his followers count on supply-and-demand forces to correct any problem, and to bring an economy toward ideal, Newtonian equilibrium.

"Market efficiency" refers to financial markets, in analogy to "economic efficiency". In finance, information is zero-sum. If everyone has the same information, then all profits will tend to be average. To beat the odds and to gain earnings above average, financiers must have more information than their competitors. The model under which finance operates therefore inherently promotes insider trading.

Classical economics spawns a dysfunctional, social conflict. Efficient economics regrets profit as an unavoidable deviation from the ideal, while business success glorifies and craves profit like oxygen. In the drama of everyday, political life, because it interferes with laissez-faire, profit generation, government regulation plays the role of ideal, economic efficiency, while business plays the role of nasty reality.

The advent of the steam engine in the 19th century required that the physics of motion extend to describe the flow of heat. The new science called thermodynamics more completely explains everyday reality, and provides a better model for economics than can Newton's laws.

Engines use heat from fuel to overcome friction and to accomplish work, but not with 100% efficiency Heat always leaves behind some energy-waste called *increasing entropy*. Since virtually anything that happens uses energy, *increasing entropy is simply a sign of anything happening!* Because entropy is the only quantity in nature that must always overall increase, increasing entropy is called "the arrow of time".

Functional capitalist economics requires that profit and money supply overall always increase. (Entropy cannot decrease overall, but economies can deflate.) *One must therefore infer that profit and money supply behave mathematically like increasing entropy*.

Adam Smith and his followers are right: profits represent inefficiency. Perfect efficiency is however no more possible (or necessary) than is a perpetual motion machine. Profit is not desirable *per se*, but neither is profit diabolical (as communism and some traditional religions teach). Profit is simply a sign of economic life, and a cost of doing business.

The conclusion: profits cannot fuel the production of value. *Rather, we produce value effectively to recycle profits*. Industry combines profits with new energy, labor, and ideas to produce new value, and to lower local entropy. *Industry lowers local entropy and regulates economic inflation as it protects us from profit pollution*.

Financial traders who use super-computed, high frequency trading to foil regulation and to exploit market inefficiencies make war on economics, and accomplish the equivalent of insider trading. They produce ever more frequent and larger, short term pricing bubbles that benefit only traders-in-the-know. Bubbles' inevitable collapse puts all of society at risk. These financial ganefs justify their actions as permitted by the free market. Yet, their trades cannot possibly be controlled, or even tracked in real time by conventional, lawful means.

Leveraged profits are toxic. With no new value to absorb them, these profits inflate large bubbles that must burst, and produce a thermofinancial equilibrium state, such as we approached in 2008. At equilibrium, no financial gradient remains to accomplish work. Only borrowing from future value production (aka deficit spending) can begin what is always only a partial recovery.

The problem we must address is the idolatrous worship of profit for its own sake.

Proper financial regulations would be *prospective*, and supplant control *responses* that cannot keep up with supercomputation. Such regulation would support the power of business and industry to create value, and would keep capital liquid, but neither overheated nor vaporized.

Is regulation socialism or communism? Is playing baseball and football with umpires and referees socialistic? One cannot plan a baseball game, but one can umpire it. The more violent the sport, the more regulation it needs to be successful – like football, hockey, or boxing compared to bowling. Economics is a blood sport.