

Economic Flaws & Fallacies

Common Flaws & Fallacies Found in Economic Thought.

Also found in "Austrian Enginomics"

Introduction

This paper consists of my notes on a number of common economic flaws and fallacies combined with notes I have made studying Russell Randall's writings on what he calls "Austrian Enginomics." I had made my notes for my own future reference. Then I noticed, in studying Russ' writing that he has made many of these common errors.

In responding to Russ' request for comments I thought he might find these comments helpful, with:

Comments about his statements—inserted in this manner.

I don't represent this paper as more than just a consolidation of notes, but I do hope any reader may find them helpful.

Fallacies of Averages and Aggregates

Fallacies of averages and aggregates generally occur when people average or aggregate non-homogeneous units. Many concepts in the study of macro-economics contain fallacies in averages and aggregates. References to average wages, total labor, average workers, total production, total production, and frequently signal these fallacies.

Averages

Given a fixed set of numbers, most people with a modest amount of education could calculate the mathematical average of the numbers in that set. The importance of knowing the limits of that set of numbers, however, seems to escape a lot of people in their common usage of the term "average." Important limits have to do with time and population. When the proud parent states that their child receives "above average" grades, they generally don't define the limits of that average. Did they calculate that average based on only the students in their child's class or all students in the world? From that population, did they calculate that average based on the members of that population over a year, or over all time? Without defining those limits, the average becomes meaningless.

Discussions about economics contain many ill defined references to averages. Average wealth, average wages, average unemployment, average prices all have little or no meaning with out a clear delineation of the limits of time and population used in the calculation of that average.

If an economist compares average prices in 2006 with average prices in 1950, he may have dealt with the limits of time, but the population problem remains. If the average prices include all

products sold during the respective years, how does this statistic deal with the prices of iPods in those averages?

Russ Randall refers to un-delineated averages many times in his writing. He seems to have placed three axioms based on averages at the core of his Enginomics. He does so, however, without defining whether he calculates those averages over time, across a population, or some combination. A person can make no definitive statements about the production, consumption, or debt of an individual or group based on an axiom beginning with "on average." How does he know whether a particular person belongs to the population used to calculate the average?

(The phrase "on average," in the first axiom of Enginomics, "On average, one cannot consume more Goods and Services than one can produce in a lifetime, assuming inventory is not depleted," makes the axiom unusably vague. Without the phrase "on average," however, that statement shifts from vague to tautological. Economists commonly accept that savings = production less consumption. Adding the caveat "inventory is not depleted" forces the value of savings to always equal a positive value, which in turn forces consumption amount to the same or less than production.)

Aggregate Wealth

Economists and the popular press frequently create fallacies of aggregation when referring to wealth and income. References to national income or wealth lose their meaning when you consider the variety of products used to generate income and the different assets counted as wealth. (See Carl Menger.)

In creating Enginomics, I believe Russ has fallen into this fallacy. In one of his pieces, he states "I had to begin with defining 'real wealth' as goods that could only be created by work and natural resources. The short list of 'real wealth' is: Capital, durable, and consumable goods, infrastructure, and skill sets." It would appear from this statement that one can aggregate all work and likewise natural resources into respective units of measure. Even listing categories of wealth does not overcome the dilemma of defining a common unit of measure for non-homogeneous products.

Aggregate Debt

Economic statisticians make a good living providing, among other things, mountains of data regarding debt. The implied and interpreted meaning of that data generally contains fallacies of aggregation. Seldom does that data include information about the different terms and conditions of the debt or about the sources of repayment. It frequently treats debt as if all persons share the liability.

Russ, in his development of Enginomics, commits the fallacy of aggregating debt numerous times. In one example, which continues to mystify me, he states: "Imagine a mystical power suddenly dropped hundreds of trillions of Treasury bonds from the heavens onto *all humans on earth*; we would all experience instant euphoria." (My *emphasis*.) With this and similar examples he seems to imply that the government distributes its debt instruments broadly and without reason. Even as an avid enemy of the State, I don't think the government acts quite so foolishly. I can only ask: to what specific mechanism of government debt issue does Russ refer?

In addition to the mystical "bonds from the heavens," Russ makes numerous statements that seem to treat all debt as part of a single bundle—or at best a few large bundles. One can only measure the risks of debt by knowing the terms of the debt and the situations of the debtor and creditor.

Aggregate Inflation

One of the most common economic fallacies that I see relates to general price increases (commonly referred to as inflation.) Because most market transactions occur based on money, people mistakenly think that they can calculate some kind of average or general price. If you go to the grocery and buy 3 lbs. of Veal, 4 lbs. of Beans, 2 lbs. of Chips, 1 lb. of Candy Bars, and 3 lbs. of Milk all for \$100, it makes little sense to say that each product had an average price of \$7.69 per lb. Yet, economists use similar logic to calculate general price levels.

After calculating this questionable measure of a general price level, which frequently serves as proxy for the devastating effect of artificial monetary growth (inflation), economists and commentators treat this like an evenly distributed (or aggregated) effect. In fact, artificial monetary growth, and resulting increase prices, do not affect products, industries, regions, or individuals uniformly. Any aggregation of price data represents a fallacy.

Russ seems to commit both of these fallacies—aggregating prices and evenly distributing the impact of price changes—in his descriptions of Enginomics. Treating price changes as an aggregate only confuses the real risks of inflation (the expansion of the supply of money.) (Also, see "Reinforcing and Balancing Processes" below)

Comment About Fallacies of Averages and Aggregates

Fallacies of averaging and aggregating can greatly confuse the understanding of economic concepts. One of the primary roles of economics, understanding the allocation of resources, loses meaning as people increasingly refer to averages and aggregates.

Fallacies in Value & Pricing

I think that most citizens misunderstand the concepts of value and price. They seem to think that value represents an inherent quality of economic goods and that suppliers of goods have total control of prices. They miss the fundamental principles and theories behind Mises' concept of the sovereignty of the consumer.

The Subjective Theory of Value

The Subjective Theory of Value represents one of the distinguishing concepts embraced by the Austrian School of Economics. The development of this theory not only sets the Austrians apart, but it also exposes some fundamental fallacies in the theories of value espoused by many other economists.

Briefly, The Subjective Theory of Value says that actors—at all levels of production and consumption—establish their values based on their subjective judgments of their requirements for economic goods. People discussing economic values need to understand the idea that the subjective nature of values applies at all levels for all products. Even sophisticated analysts, who use complicated discounted rates of return calculations, use subjective judgments of value. In doing so they use the subjective value judgments of other actors buried in the historic rates of return they choose to use.

In his development of Enginomics, Russ seems to ignore the Subjective Theory of Value and incorporate some of the common fallacies related to value. The whole concept of establishing real wealth and of identifying generalized market “bubbles” denies the acceptance of subjective value. At one point, he tries to separate his concept of wealth from that of value. I don’t understand this one. I can only suggest he refer to Carl Menger’s discussion of economic goods and Menger’s definition of wealth: “Wealth can therefore also be defined as the entire sum of goods at an economizing individual’s command, the quantities of which are smaller than the requirements for them.”¹

Pricing and Catallactics

Fallacies of pricing relate closely with those of value. Many people seem to believe that producers establish prices, on which ultimately consumers have no influence. They believe that prices somehow determine supply and demand, instead of always the other way round. Historic prices have only an indirect influence on supply and demand and thereby on current and future prices.

A price represents the ratio at which parties to a transaction willingly exchange one good for another—including money. In direct exchange, the price might amount to one horse for three pigs. In an indirect exchange, the price might amount to one horse for \$100, for which the seller hopes to buy three pigs. The nature of price means that it always depends on the ratio established at the point of exchange.

Mises spends a considerable amount of time discussing theories—he calls “catallactics”—that deal with the use of price in the market economy. This excellent definition comes from the Ludwig von Mises Institute web site:

¹ *Principles of Economics*, Carl Menger, page 109. Menger defines “goods” as those things that satisfy requirements of men. “Economic goods” consist of goods for which the quantities available amount to less than the quantities required. “Non-Economic goods” consist of goods for which the quantities available amount to more than the quantities required. Wealth consists of economic goods—all based on subjective value.

Catallactics, n. **catallactic**, adj. The theory of the market economy, i.e., of exchange ratios and prices. It analyzes all actions based on monetary calculation and traces the formation of prices back to the point where acting man makes his choices. It explains market prices as they are and not as they should be. The laws of catallactics are not value judgments, but are exact, objective and of universal validity.

Subjective value and money combine to form the foundation for catallactics. Acting man requires money to make economic calculations regarding the market. One cannot separate money from economic calculation. J. M. Keynes made the error of trying to separate money from the “real economy.” (See Henry Hazlitt, *The Failure of the New Economics*.)

Enginomics has made the fundamental error of confusing the role of money in its attempt to separate “real” (Russ’ quotes) wealth from financial wealth. Russ has couched all references to real and financial wealth in terms of dollars. By using the same unit of exchange for both real and financial wealth, he has failed to separate real wealth from financial wealth. Any change in the demand for financial assets will affect the relative value of dollars which will also affect the demand for dollars relative to what he defines as “real” assets.

By using a money value for both “real wealth” and “financial wealth” he has actually kept the two tied together. If he were to eliminate money from the calculation of real wealth, the computation of aggregate wealth would become not only dubious but impossible.

Fallacies in Systems Thinking

Confusing Causal Relationships

Many people—regrettably many of them economists—get all confused about the causal connections between variables in economic systems. The connections between productivity (defined as a rate: i.e. production per unit of time), population increases, inflation (monetary expansion), and prices provide a prime example. Many think that the first three variables act in concert to push prices higher. Let me clarify one at a time.

First, if productivity (defined as production per unit of time) increases in an economy in which the population level remains the same, the quantity of money remains constant, and the demand for money held as a cash reserve remains constant, prices will tend to decline (particularly in the areas of productivity increase.)

Second, if productivity remains constant, the population level remains the same and the quantity of money increases (while the demand for cash remains unchanged), prices will tend to increase (although not uniformly.)

Thirdly, if productivity remains constant, the quantity of money remains constant, and the population increases, the price of labor would tend to decline but other prices would tend to remain the same. People tend to find it tricky to determine the effect of population changes on

prices because they forget that the quantity of dollars bidding for a quantity of goods, not the size of the population, determines dollar denominated prices.

Thus, if productivity, population and inflation (monetary expansion) all increased, you would have three interrelated variables pushing prices in different directions. Productivity increase would tend to push prices down; population increase would tend to push wage rates down; and inflation (monetary expansion) would tend to push prices up. The interdependent nature of these variables makes it impossible to calculate the magnitude of price changes, the direction of those changes, nor the sectors effected.

Russ seems to have confused this causal relationship. At one point, he states: "If stocks (or "paper" wealth) doubled for example and the population plus productivity grew @ 3%, and inflation grew by 2%, there might be a justification for the stocks and "paper" assets to grow 5% in nominal value." In fact, one cannot make a definitive causal connection between the changes and the alleged result.

First, one cannot add percentage changes in productivity (a flow measured in units per time period) to percentage changes in population (a stock measured in persons.) Second, increases in population may push "stocks and 'paper'" asset values up or down, depending on other variables. Third, increases in productivity tend to push costs down, which may push asset values up or down, depending on other variables. Finally, inflation (expansion of the money supply) simply pushes the value of money down; one cannot calculate where or when that will affect other asset values.

Reinforcing and Balancing Processes

In addition, to misinterpreting causal connections, economics discussions often confuse reinforcing and balancing processes, and even more frequently they misunderstand the shifts in dominance from reinforcing processes to balancing processes. By doing so they can grossly misinterpret the long term outcomes of behaviors in the economy.

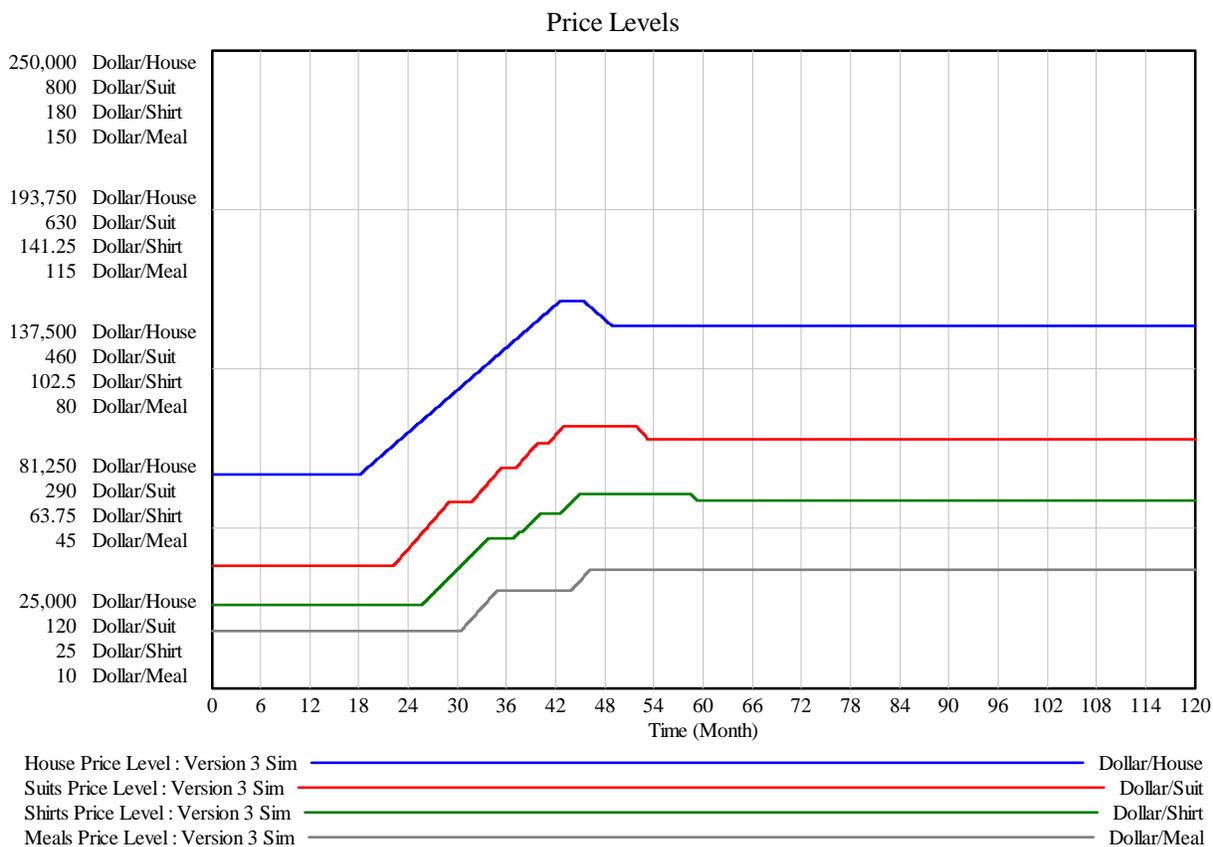
In simple terms, a reinforcing process tends to grow in strength or magnitude over time because of feedback. Systems thinkers frequently use the snowball rolling down a hill as a metaphor for a reinforcing process. The compound growth of savings interest provides a good example.

A balancing process, on the other hand, tends to seek a goal. Home heating systems provide an excellent example of a balancing process. The furnace keeps running until the room temperature reaches that set on the thermostat (the goal) then it shuts off. Mortgage amortization provides a good financial example of a balancing process.

Most lay people, and a good many economists, treat general price increases (frequently called "inflation") as a reinforcing process. They apparently believe that the economy does not correct for the perpetual increase in the money supply. They seem to think we still suffer (generally) from the effects of monetary expansion in 1980s, 1950s, or even the 1920s.

First, as I mentioned earlier, the effects of inflation (monetary expansion) do not appear in an aggregate—hitting all sectors of the economy at once. Inflation affects one sector before another, rippling through the whole economy.

Second, the market acts as a balancing process. The dollar prices of market goods tend to reflect values of goods (including money) relative to each other in the current time. A picture might help:



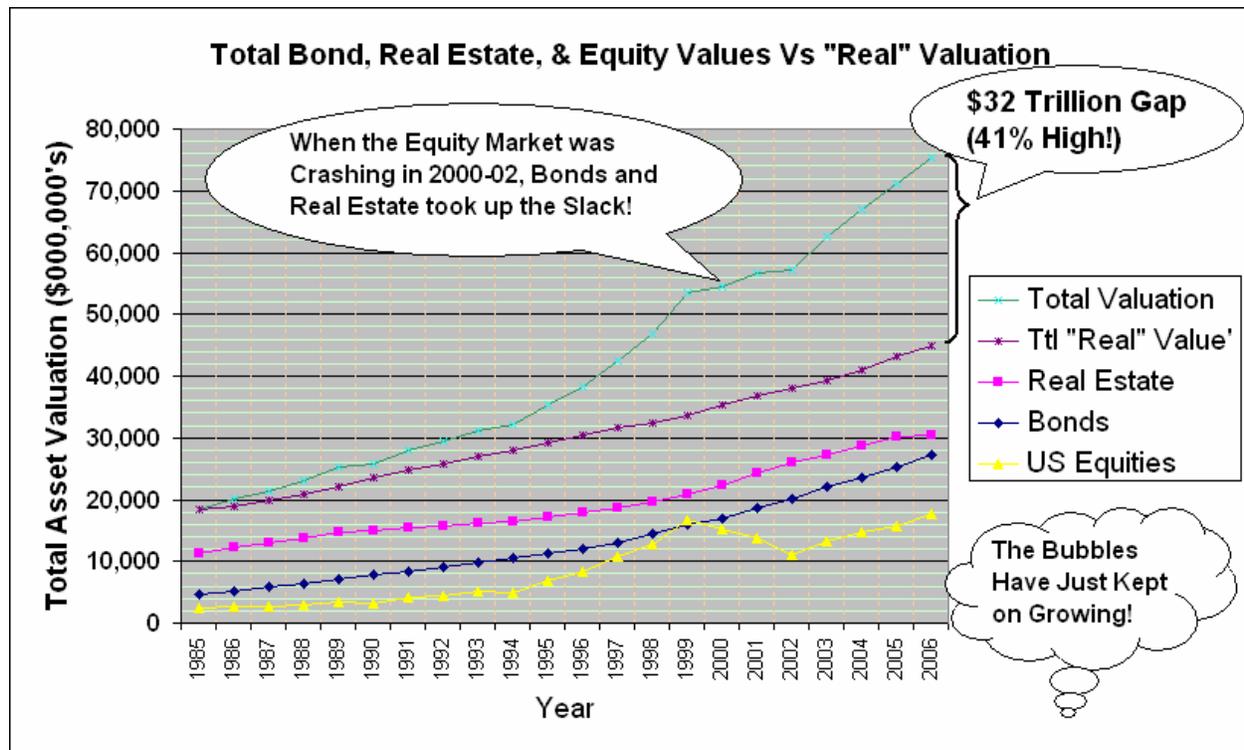
Without going into all the details, I generated this diagram with the model of an economy of five goods (four plus money). It shows the effect of a one time injection of money into this economy during month 18. In this case, the money enters the housing market first, and dollar/house prices start to rise immediately. The prices of the other three commodities begin to rise after time lags. From month 18 through month 60, the prices of the different commodities adjust to re-establish their relative dollar price values in terms of the new quantity of dollars.

After month 60, the balancing processes of the market have achieved their goals and the relative prices remain constant—although at a higher dollar price. Although far more complex than this example, the market works the same way. After completing the adjustment process, the original increase in money has no lingering effect.

By increasing the supply of money, the Fed sends these price ripples through the economy causing temporary dislocations and misallocation of resources. But the market—a balancing

process—always adjusts. Herein lies the essence of the Austrian Business Cycle Theory. The larger the price ripples created by the Fed the larger the market correction—boom and bust.

Russ seems to have missed this point, for most of his bubbles appear as a result of treating inflation as a reinforcing (not balancing) process—the effects of monetary increases seem to grow and compound—with no consideration of the balancing process. Here's an example:



Since he applies some sort of inflation, population, and productivity adjustment to a couple of related charts, I assume he made a similar adjustment for this graph. Since, on balance, population, and productivity increases should cause prices to decline I assume he attributes the bulk of the gap to inflation (monetary expansion). Although this graph does depict the pretty startling dilution of the value of the dollar (relative to its past value), it does not reflect a growing "illusion of wealth."

Ask yourself why no gap existed in 1985? During the 1970s, inflation went crazy. Interest rates reached the sky. But the effects of those dislocations all disappeared by 1985? Curious.

Comparing Stocks (Levels) and Flows (Rates)

I advocate the use of systems thinking—and more particularly System Dynamics—to understand economic concepts so that people will not make the error of drawing illogical parallels or combining stocks (levels) and flows (rates).

The term “rich” frequently refers to people with large incomes (a flow), yet those same people may save very little of what they earn and have relatively small net-worths (a stock). Also, conversations about national and international economics continually confuse and combine stocks and flows. Politicians and the popular press refer to “the federal deficit” as if it amounted to a growing stock. The term refers to a net flow for one year. They then proceed to compare the federal debt (a stock) with the Gross National Product (a flow) without explaining the meaning of the relationship they allege.

You cannot sever the relationship between stocks and flows, but you should not also confuse or combine the two. Stocks consist of accumulations of units measured at points in time. Flows consist of instantaneous rates of accumulation measured in units per unit of time. They have, therefore, different units of measure. Miles cannot equal miles-per-hour. Gallons cannot equal gallons-per-minute. And dollars cannot equal dollars-per-year. To know the amount of the accumulation in a stock you must know the time period (or number of time periods) over which the units of flow have accumulated. But you cannot add the two. You cannot say you traveled 20 miles plus 50 miles per hour and get a meaningful result.

Throughout his writings about Enginomics, Russ makes many references to debt (a stock) and GDP (a flow), but he seems to treat them as comparable. One example demonstrates this problem clearly.

In one article titled, “Debt to GDP Can Never Exceed One in Real Terms,” Russ poses the question, “Can We Calculate Legitimate Financial Debt vs Total Market Debt to Understand the Magnitude of the Illusion?” He responds, “Yes, but it can be a cumbersome calculation.” He sums up the explanation with this formula: “ND + FD + GE + OGD - GDP (Gross Domestic Product) = Total Debt Illusion”

In the following table, I have broken down the components of this equation. In the first column, I have listed the variables. In the second column, I have defined whether they consist of stocks or flows. In the final column, I have given the units of measure for those variables.

<u>Variable</u>	<u>Stock/Flow</u>	<u>Units</u>
ND = National Debt (Private)	Stock	Dollars
FD = Federal Debt (Legitimate)	Stock	Dollars
GE = ongoing expense of all government entities	Stock	Dollars
OGD = Other Government Debt	Stock	Dollars
GDP = (Gross Domestic Product)	Flow	Dollars/Year
Total Debt Illusion	Stock or Flow?	Dollars or Dollars/Year?

The formula that Russ presents adds four stocks (each in units of dollars) and subtracts one flow (in units of dollars per year). So what does the "Total Debt Illusion" mean? Does it amount to a stock or a flow? Does he measure it in dollars or dollars-per-year?

Fallacies in Understanding Freedom

Politicians and their economist friends make careers out of espousing liberty and freedom and advocating actions that negate liberty and freedom. Liberty does not mean having the freedom to do what you want while forcing others to do what you want them to do. Liberty in a society has a characteristic that many people seem to find uncomfortable. Liberty means freedom for everyone. Every individual has the freedom to do what he or she wants to do, so long as they do not violate the freedom others. Everyone in a free society (including politicians) adheres to the principles of life, liberty, and property.

The very notion of any sort of an economic policy impinges on liberty in society. As Ludwig von Mises said, "Government is essentially the negation of liberty." Any form of taxation consists of a violation of the freedom to property. Any form of regulation violates right of life or liberty.

Requiring a balanced budget by law violates the principle of liberty at its core. First, it connotes that a federal government should have a budget. Nation states use political means—not economic means—to allocate economic goods. A nation state can only confiscate and redistribute property. It cannot, and should not, budget disbursing resources it does not own.

Second, the idea of balance connotes that legitimate methods for eliminating differences between federal receipts and disbursements consist of either decreasing disbursements or increasing taxes. Only decreasing disbursements reduces the government's violation of liberty. Increasing taxes consists of increased confiscation of property—a reduction of liberty. If taxes represent a violation of liberty, more taxes certainly do not mean less of a violation.

Russ falls into the trap set by people who do not understand the nature of federal debt and advocate a constitutionally mandated balance budget.

No advocate of freedom should favor any law that would increase the power to tax.