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Economics: The Logic & Scientific Distortion

How do we grow an economy? A former research director at the Federal Reserve who wished to remain anonymous commented about the credibility of economic forecasting: *"If central bankers threw out all the data that was poorly measured, there would be very little information left on which to base their decisions".ⁱ However, are not we to believe that central bankers are smarter than to use unreliable data? In fact,* The Federal Reserve, America's central bank, is comprised of people from the most prestigious universities of the world. Indeed, intellectual as they are, there is little debate that the scholars running the Federal Reserve have forecasted horribly inaccurate predictions in the approach of and during our most recent economic crises. To illustrate how poorly they have done, one may look towards the two most recent chairpersons that headed the pseudo public institution: Alan Greenspan & Ben Bernanke. Not only did both chairpersons inaccurately forecast the direction and impact of the housing bubble on the US economy, both acted as cheerleaders to expand the bubble itself. In 2006, Greenspan *encouraged* lenders to actually further expand adjustable rate mortgages in the subprime marketⁱⁱ while Bernanke concurred claiming the housing "boom" was an indicator of *solid fundamentals* of the US economyⁱⁱⁱ (Page 6). What could account for both these chairpersons' mistaken forecasts?

The principle behind Bernanke's seemingly distorted claim of "solid (economic) fundamentals" resulted in wealth representing nothing but inflated paper values on depreciating assets. Highlighting the question, 'What are the fundamentals of a strong economy?' Current policy, illustrated by Chairmen Ben Bernanke and Alan Greenspan pointed to the government and Federal Reserve data on GDP, personal income, and discretionary consumer spending^{iv}. One can argue that Ben Bernanke made his statement based on intellectual dishonesty^v. However, a much more realistic and fair conclusion should

be that Ben Bernanke's statements were not derived from corruption, but from a school of thought which modern economics has erroneously accepted. Ben Bernanke and Alan Greenspan both derive their principles from a school that has evolved the role of central banks. The school has expanded their discretionary power over the economy through a 20th century through policy shifts. This brings forth questioning the theories that central bankers use to guide the economy through booms and busts. In fact, economic theory today appears to have countless amounts of theories, but one must look upon the logic of an economist's fundamentals explain the unrelenting rise of the central bank's power. We move analysis down to the level that questions the simple concepts of "wealth" and "thought" to obtain links in the modern theory. In doing so, we illustrate the central divide among contemporary economists. Fundamentally, the prime rift is between economists who use *deductive reasoning* and those who use *positive empirical evidence*. To illuminate the effect of this rift, this article will disseminate a couple fundamental economic topics under scrutiny: Defining Growth and Forecasting. The resulting differences and history shows strong support for consideration of deductive reasoning over current methodology. The reality is that legitimate theories should channel central debate on the current "given" modern theory is not debated at all, but instead a mainstream economists insist a "bridge" exists today, known as the Neoclassical Synthesis of the 20th century. This has perverted economic thought to the point where *debate will not even come under consideration on the fundamental level*. Therefore, *the Positive Empiricism Approach (See: "scientific")* has inherited a foundation built upon, ironically, a normative nature. Failure of the scientific approach, empirically and logically, proves that mainstream neo-Keynesian economics promotes externalities in waves that deliver far more impact than simply direct practice. The school's influence and has potential to be more destructive potential than any time in history.

The Participants of Philosophical Thrift

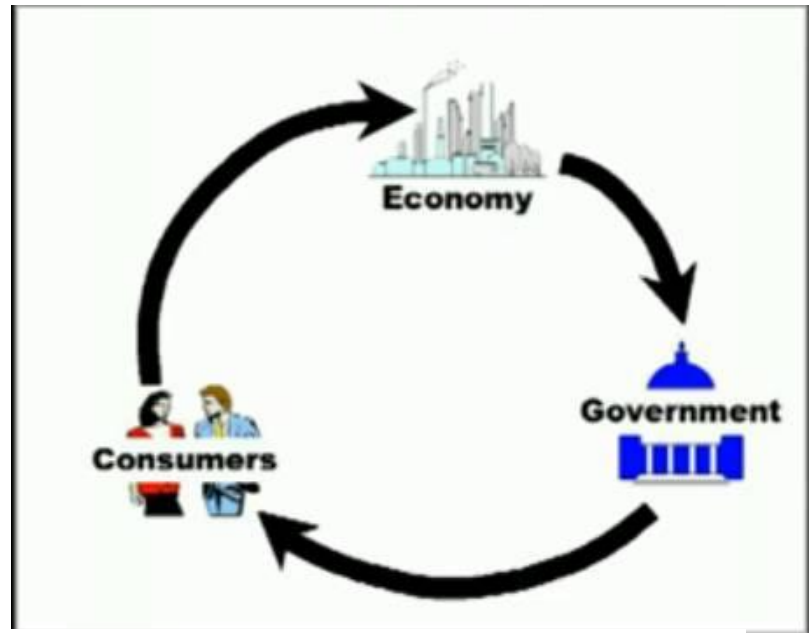
The fundamental rift that questions the formulation of fundamental economic theory returns to a historically unsettled intellectual debate. Very recently, there has been a resurgence of heterodox schools of economic thought, due mostly to the failure of mainstream economists to successfully forecast, or even clue the nation, on the financial crisis of 2008. Nevertheless, before detailing the mainstream theory, I would like to elaborate on a particular heterodox economic philosophy, *Austrian School of Economics*. This school is important as the centerpiece for debate as they boast often about the plethora of economists who successfully predicted the 2008 crisis.^{vi} The Austrian School, itself, was not a stranger to popularity in the past. In fact, Austrian economics from the 1880s until the 1930s held worldwide-accredited stature and was the pretense of many policy decisions throughout Europe and the United States. Austrian Economics uses the basis of Classical Economics of Adam Smith where they use methods of deriving logic in a similar fashion to Aristotle, Socrates, and Plato^{vii}. Austrian Economists were one of the three schools that derived the logic of marginalization and founded the subjectivist approach in economics. To get a better understanding of how they thought, Austrian economist Carl Menger introduced the term “Neoclassical economist” to distinguish the positive approach versus the subjective approach of marginalization along with separating the Austrian School with the often-overlapping views of what we define as Alfred Marshall’s neoclassical school^{viii}. Among important historical events, Austrian economists gauged a famous intellectual war in the 1880s against scientific methods advocated by economists at the German Historical School, foreshadowing the very same fundamental argument happening today. The epistemological debate highlighted that academics of the Austrian school, unlike both Neoclassicists and Empiricists, never infer that there are perfectly stable functioning markets. Therefore this view rejects the plausibility of perfect competition, highlighted the rapidly changing behavior of human preferences and behavior.^{ix}

Now, flash forward to today. Have you heard dissent or debate philosophical selection professors should teach to their students in their 'Introduction to Macroeconomics' classes? In nearly all schools, the neoclassical theory of perfect competition and perfectly clearing markets is taken as given and contrasted only with Keynesians' view of "sticky prices". Similarly, text books also take as given the integration of the ideas encompassed in *General Theory* (released by populist Maynard Keynes), which is the foundation of "aggregate demand" models in the classroom. Paul Samuelson together coined these two integrated theories as the "neoclassical synthesis".^x This is extremely important because this synthesis occurred during the time in which Richard Nixon made the apparently obnoxious, but surprisingly accurate statement, of the Federal Government's shared economic ideology. Nixon claimed, "We're all Keynesians now". This did and still does portray shared massive acceptance of this economic ideology. To illustrate this, take "alternative" mainstream economic theories, such as Monetarism. Milton Friedman's school of thought, often seen as contrasting Keynes, was forced to accept the general foundation of Keynesian economics to all be true.^{xi} In fact, Friedman's view of Keynesianism was little more [than] a moderate view on the principals^{xii}. Others, in order to be able to attain prestigious positions, realigned their views to be in line with Keynesians. This twist is best encompassed by the story of former Chairman Alan Greenspan wrote a famous 1966 essay in Ayn Rand's novel supporting Austrian Economics; however, he switched his views into what is considered "monetarist" before he was able to enter the Federal Reserve and eventually to be elected chairman^{xiii}. In 2009, Newsweek commented on the current conundrum of the irrelevancy political ideology plays on economic ideology, it stated that all government was conducting exponentially increasing Keynesianism policies of expanding the size federal government and running constant account deficits^{xiv}. This shortsighted view on history eventually led to a false economic divide between "conservative" economists who want to cut fiscal taxing, raise spending, and "liberal" economists who absolutely want more taxing and spending. Yet, both conservative and liberal economists share these following

characteristics: *continuous* expansion of the money supply, depreciating the dollar, discouraging savings, and encouraging spending. All of these are roots to the fundamental Keynesian philosophy.

The Fundamentals

Everywhere one looks, an onslaught of Keynesianism has forced scholars to accept the neoclassical synthesis into one's philosophy if they are ever to enter the field of economics. That is not an overstatement, as every developed nation has now accepted Keynesian principals to some form and



Flow of Funds 1

degree. To provide an example—if one believes that the GDP is a good indicator of current economic standing, status, wealth, or growth, one follows the principles of Keynesianism. This is the first economic fundamental that the United States has universally accepted—but has this merited?

What is the definition of economic growth? How do we know if we are growing today? One may look towards the heterodox schools to answer this question: Austrians and classicalist challenge fundamental validity of GDP. Austrians see GDP as a poor economic indicator for economic growth pointing that only investment leads to growth. The theory reason that spending comes as a result from past economic investment, and therefore an economy based 72% of GDP on spending is drastically misrepresenting growth^{xv}. GDP derivation is found through calculating the summation of all expenditures by the nation. This includes consumer spending, domestic investment + the difference of

exports and imports, and government expenditures ($GDP^{\text{Nominal}}=C+I+G+NX$). One can see how using deductive reasoning would lead to the conclusion GDP is a poor indicator. The deductive reasoning takes on the assumptions of GDP: a dollar spent, no matter on who or what, is equally as valuable as any other dollar. To illustrate the conclusion, we use the Classical/Austrian Aristotle method to derive the steps on the spending component of GDP; we then contrast it with Keynesian method and their conclusion:

Deductive Reasoning: Austrian Logic Testing GDP's validity:

1. *Premise 1: Any expenditure that leads to future income is more desirable than waste (Prudence is desirable for future growth).*
2. *Premise 2: Two people decide to start an economy in a new nation.*
3. *Those two people have \$100 dollars each.*
4. *Premise 3: Person 'A' spent decided to offer a service sector selling alcohols. However, Person A is a drunk and spent his \$100 on getting drunk.*
5. *Person B spent \$100 investing in a new business that focuses on producing planes and exporting them; whereby he hires 15 more people in the following year.*
6. *Both \$100 purchases, and therefore both people, **have contributed to the wealth and growth of society equally.***
7. *However, that leads to a **contradiction.***
8. *Therefore, either future income is neither more desirable than waste or the allocation prudence of your investment is more valuable depending on where it is placed.*

Some economists, such as various members of the Chicago school, maintain that GDP should account for this difference over a period of time^{xvi}; with the person B in the situation above reducing his contribution to GDP to zero the following year.^{xvii} However, Austrian theory accepts this but also that nature shows how GDP is a poor indicator for future growth. Nevertheless, Bernanke boldly proclaimed

back in In July 2006 & 2007 that the *current numbers* he held all the way through 2007 annual year would amount into promising future growth.

The fiscal year of 2006 had no apparent shortcomings that were beyond the reach of monetary policy. That was the economic image portrayed in Ben Bernanke's July 2006 Congressional address. There was not one mention of the 100-year low savings rate, instead we hear about very optimistic forecast and encouraging investors, borrowers, and homeowners.

"This scenario envisions that consumer spending, supported by rising incomes and the recent decline in energy prices, will continue to grow near its trend rate and that the drag on the economy from the [inaudible] housing sector will gradually diminish... xviii

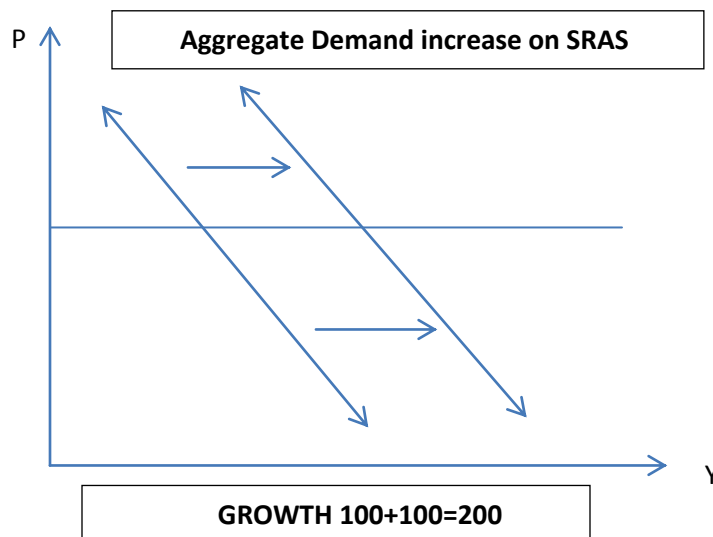
Although 2007 was not foreshadowing a breakdown in the subprime market, Bernanke 12 months later went even bolder and was convinced that subprime could never leak into the entire mortgage market. The \$150 oil is also positive, although consumers may find it bothersome; Bernanke held that was clearly a sign for higher wages to come:

"Sales should ultimately be supported by growth in income and employment, the global economy continues to be strong, supported by solid economic growth abroad... U.S. exports should expand further in coming quarters. Overall, the U.S. economy

seems likely to expand at a moderate pace over the second half of 2007, with growth then strengthening a bit in 2008”^{xix}

Therefore, Bernanke cited “Sales”, which could be represented debt spending by ‘Person A’, as support for his forecast for 2008, instead we can conclude Bernanke used a method closer to Keynes in deriving his conclusion:

The classic Keynes method of the same situation in the scenario outlined below:



This is a simplification of Keynes model. In contrast to the logical approach utilized by deductive reasoning, Keynes utilizes his theory that prices remain sticky in the short run. These ‘sticky’ prices illustrate a clear motivation when illustrated. The figure above displays how the government can print money and pour it into any of spending—which must shift the equilibrium from the left line to an increase of 200 (the GDP). Therefore, the Keynesian approach clearly has political implications by making numerous unsupported assertions about money and wealth. Bernanke’s forecast makes these underlying assumptions above: Assuming that today’s spending is an indication of future economic output (as the model shifts on a flat SRAS, the new GDP has shifted rightwards and should be followed

by a shift in LRAS). These assumptions highlight the fundamental Austrian school's criticisms of Keynesian growth. Austrians contend that the Keynesian approach on growth focused solely around the "Aggregate Demand" model, which does not account for negative effects of inflation, the level of debt, and portrayal of governmental expenditures. Inflation, Austrians contend, that will result from printing money shifts this curve to the right but does not portray the overall loss in purchasing power. Similarly, Government spending is criticized for being "double counted" being counted for income earned and afterwards when government spends (Austrians argue it should actually be subtracted from GDP). Finally, the model does not account for debt levels, which is sacrificing future spending for spending today (thereby having a reverse effect later) and should be subtracted in the model.

Criticism of both the model of Aggregate demand and the inherent GDP measure are flawed and therefore invalid for forecasting is and always will be old. The creator of the GDP measure, Simon Kuznets, declared in 1934 that GDP "should not be used" for forecasting and is not an indicator of any type of welfare^{xx}. Despite these stern warnings, GDP has instead been widely adopted as prime measures of economic health and indicator for future standards of living^{xxi}. President George Bush equated "patriotism" to "shopping."^{xxii} In addition, the United States now *defines* recessions in terms of negative GDP. However, it is not as if there were not any alternatives to using GDP. Austrian economist Murray Rothbard has proposed alternative methods for deriving a measure of economic welfare to replace GDP. Rothbard's most popular measure was the PPR (Private Product Remaining) which attempted to address a few of these imbalances; but attention and attempts change adopt new measurements are viewed as 'fringe' and largely ignored.^{xxiii}

There is a definition for "economic growth" that nearly all economists will grant validity towards. Perhaps difficult or even impossible to empirically measure, this classic definition of economic growth is the "expansion of productive capacity" of an economy. Nevertheless, we observed a perplexing attention to aggregate demand in the 20th century. The attention towards aggregate demand

is a modern phenomenon preceding the existence Keynesian theory. Notable friend of Keynes, Friedrich Hayek of the Austrian school, commented on in a television interview that concentration on aggregate demand was not a new concept and economists “knew to no longer pretend that aggregate demand would expand productive capacity”. Hayek also elaborated about phenomena surrounding the attention to Keynes theories of aggregate demand. Disappointed that modern economists (of the 50s-70s) ignored history, Hayek claimed aggregate demand “was a primitive idea which had clearly been refuted”. Hayek went on to quote the “fundamental mistake” Leslie Steven commented upon of the 1880s, “*The classic mistake of a new economist is to be falsely led into looking at consumption spiral of demand*”^{xxiv}. It is important to point out that Hayek predicted the Great Depression in 1929, just before the stock market bubble burst on the grounds what he claimed was an excess of lending, deficiency in savings and current “misallocation of resources”.^{xxv} In contrast, Keynes failed to predict the depression completely; but his views still win out in policy. Bush’s comment on patriotic spending, consumption spending was 72% of our economy in 2007. Finally as illustrated in by quotations of the current Chairman, the Federal Reserve adopted acceptance that spending would lead to future employment and growth^{xxvi}. Yet, false forecasts have put Bernanke’s credibility into question, but the very processes behind the neo-synthesis forecasting methods and their fundamentals have failed to be questioned on their fundamental methods.

Which leads us to the second fundamental rift: Does anyone know exactly how to predict booms, recessions and employment? As mentioned before, Ben Bernanke, Alan Greenspan, Secretary Paulson, and Nobel Prize winner Paul Krugman have all stated that housing prices ‘appreciating’ was ‘wealth’, a signal of growth, indication of strong fundamentals, and or a form of the economy growing. Nevertheless, Austrian economists Jim Rogers (2005), Michael Pento (2006), Peter Schiff (2005), and even Ron Paul (2003) said that housing speculation was consistent with the *Austrian Business Cycle theory*, where all proclaimed that malinvestment in housing is a bubble that will end in a recession. The

Austrian Business Cycle method is not to be confused with “Real Business Cycle Theory”. The Austrian Business Cycle *proclaims malinvestment is encouraged through some false signal in the economy.*^{xxvii}

This theory has had an impressive history that deserves further attention. We see that a few modern Austrian economists foresaw the crisis years before the housing bubble collapsed, but this is *reminiscent of Friedrich Hayek and Ludwig Von Mises* leading up to the Great Depression^{xxviii}. That is correct; as early as 1924, Ludwig predicted the global depression and meant it—famously rejecting an executive position at a large bank, citing he wanted “no part in their impending failure” (which collapsed only 4 months later).^{xxix} Similarly, Hayek famously predicted in 1929 that the ongoing recession in Europe would continue until the stock market bubble and credit boom collapsed. Von Mises commented on how he foresaw the depression: Lew Rockwell, the founder of the Von Mises Institute; spoke on Mises foresight:

From 1926 to 1929, the attention of the world was chiefly focused upon the question of American prosperity. As in all previous booms brought about by expansion of credit, it was then believed that the prosperity would last forever, and the warnings of the economists were disregarded. The turn of the tide in 1929 and the subsequent severe economic crisis were not a surprise for [Austrian] economists; they had foreseen them, even if they had not been able to predict the exact date of their occurrence.^{xxx}

Moreover, the Nobel Committee elaborated Hayek’s Predictions:

Perhaps, partly due to this more profound analysis, he was one of the few economists who gave warning of the possibility of a major economic crisis before the great crash came in the autumn of 1929. Both Von Mises and Hayek illustrated how monetary expansion, accompanied by lending which exceeded the rate of voluntary saving, could lead to a misallocation of resources, particularly affecting the structure of capital. This type of business cycle theory with links to monetary expansion has fundamental features in common with the postwar monetary discussion^{xxx1}.

Therefore, Austrians consistently predicted and explained both the Great Depression along with the current economic collapse with the Austrian Business Cycle theory. Keynes and Irving Fisher (the famous neo-classical economist at the time) failed at predicting the Great Depression completely. Alas, the Depression did not lead to a rise of the Austrians, but a policy adoption of the 1930s by those who failed to predict the Great Depression.

A similar picture seems to mirror the current collapse and recession. Even if an economist vehemently disagrees with the Austrian's theories on business and government, virtually every economist has agreed America had a problem excessive debt that contributed to the collapse of the bubble. Therefore, following basic laws of *any* logic, the solution proposed should include the same factors that caused the crisis. In 1946, six weeks before his death, Lessons learned by John Maynard Keynes made him concede his own mistakes in the belief in the Phillips curve and deficit-financing^{xxxii}

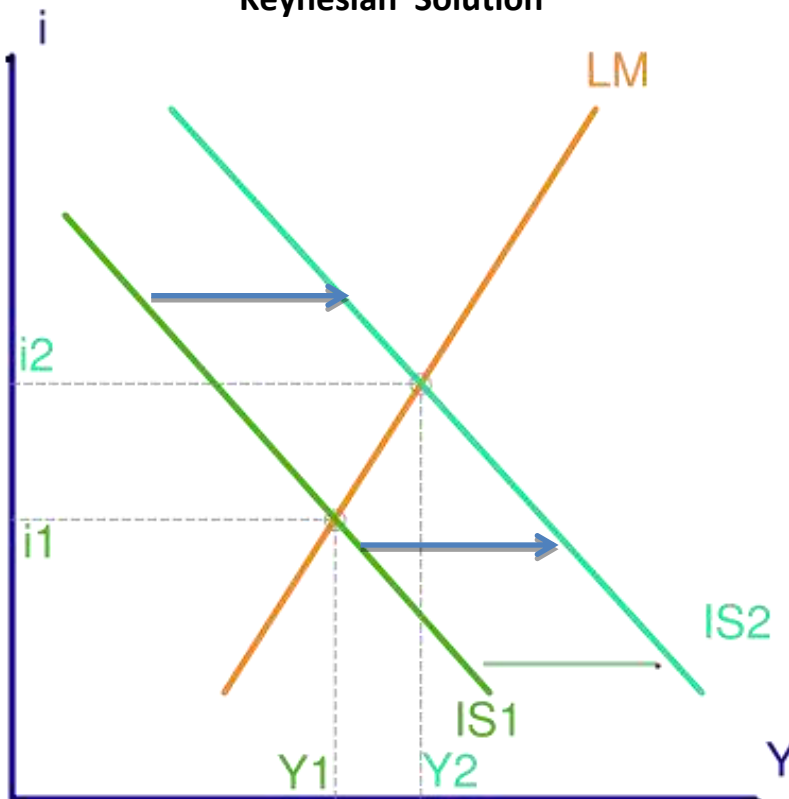
However, Keynesian philosophy had spread so far and deep that Keynes himself became irrelevant and only the General Theory followed. The primary example of today's policy is illustrated by Chairman Bernanke, who vehemently recommended fiscal stimulus in combination with the unrelenting amount of inflation printing. Unfortunately, there even exist some who want to extend Keynesian policy even further. Paul Krugman asserted that Bernanke's position is far too 'conservative', despite Bernanke's current policy of record low interest rates, rates of lending, and asset purchases.

How could Krugman consider a plan with all-time records in money printing and expansion of money supply be considered moderate by Krugman? Keynesians like Krugman will justify their advocating policies by pointing to a theory modeling the relationship between money supply, fiscal spending and GDP, which elaborates on the aggregate demand model, known as the IS/LM model. This IS/LM relationship says increasing the money supply and fiscal stimulus *both simultaneously* will increase GDP while holding interest rates constant—therefore standards of living of everyone (Note Milton Friedman's preferred method is also illustrated by the LM; observe how the theory builds *from* Keynesianism, not against). We then model again the approaches to solve and fix the crises of 2008 and the current recession of today:

Austrian Deductive Solution to crises:

1. *Premise One:* The Federal Reserve along with government agencies created environment of falsified signals to the market.
2. *Premise Two:* The Government (represented by deficits) and the people have spent far too much money and have far too much debt.
3. *Step One: Bubble:* The false signals led to malinvestment in the economy & excess credit supplied blew up the bubble.
4. *Step Two: Crash:* Once the malinvestment was recognized, the prevailing market forces will attempt to correct the misallocation of resources. Moreover, correct interest rate levels. Recession and economic contraction must come.
5. *Step Three: Market and Consumer Rebalancing:* The consumer who went into too much debt will eventually correct his behavior and start saving again as rising interest rates will lower the cost of holding money.
6. *Conclusion: No stimulus, allow Creative Destruction.* Monetary stimulus will only inflate the currency and suppress interest rates further slowing correction and lengthening the recession. Fiscal Stimulus will further government debt and raise burden on citizens to repay the government's debt.

Keynesian Solution



What we can draw from the two approaches is one agreement: both accept the model will *change* the markets by influencing nominal interest rate, but instead of “growth” being the likely forecast, Austrians argue that this is an example of the false signals sent to free market. Deductive reasoning would therefore say the IS/LM stimulus example should be avoided by the nature of deductive logic. Keynesians however argue that the model is reality and will *only lead to the effects of what it illustrated on the model: Future Growth and higher output*. If Keynesians had to use deductive logic as a pretense to applying their models in practice, we would see far less stimulating today. Dr. Nassim Taleb of New York University summed up current economic thought process by those who control monetary and fiscal policy, *“Economists are taking far too many risks today”*. He further elaborated, *“Economists like Bernanke, Greenspan, and Krugman have been looking for ways to fit data to match their models, rather than adjusting their models to match the actual data”*.^{xxxiii}

To conclude, I bring up forward the reader to consider the following: can you convince yourself there is justification for the fringe status of Austrian economics? If not, why not permit them from attaining positions within any major position on the board of governors and or the FOMC. Is the Federal Reserve or the \ Treasury of the United States? We identified the fundamental separation between deductive reasoning and empirical modeling. Yet with the historic record of accurate predictions in the deductive reasoning school of thought, combined with the recent failure of current neo-synthesis policies in practice, we must accept it is far more logical to allow the chance for competing schools of thought to debate with the mainstream ideas. Allowing Austrians a few positions at either the Federal Reserve’s Board of Governors or the United States treasury enables the chance to debate the mainstream economists and make them prove their theories at the FOMC or Congress. Granting any heterodox school the chance to integrate with the mainstream will, at worst, give those who have not

been exposed consider alternatives to mainstream theory and to better understand alternative school methods and lead to real economic debate that is long overdue. Alas, consider the possibility that these debates could lead to innovation methods to come up with new and functioning monetary policy. Perhaps we can begin to undo the damage of modeling assumptions and fundamentally return education that has not been considered in 70 years. Keynesian & neo-synthesis suppression on alternative methodology is not benefitting intellectual honesty or current economic standards of living. Allowing the necessary debate may help prevent our future economy from blowing up serious bubbles and lead the nation to serious path of sustainable prosperity. Unless you can convince yourself this is a bad thing for the current state of economics; help spread the case for a real debate.

 References:

- ⁱ Maloney, http://www.europac.net/voices/trouble_economic_statistics
- ⁱⁱ "Greenspan admits mistakes in subprime mess" [MSNBC](http://www.msnbc.msn.com/id/20759709/ns/business-eye_on_the_economy/)
http://www.msnbc.msn.com/id/20759709/ns/business-eye_on_the_economy/
- ⁱⁱⁱ Sanchez, Daniel James. "Ben Bernanke was Incredibly, Uncannily, Wrong. 2009. <http://mises.org/daily/3588>
- ^{iv} Sanchez, Daniel James.
- ^v Greenwald, Igor. "Some Questions for Bernanke's Critics" 2010.
<http://www.moneyshow.com/investing/article/29/GlobalEditor-22884/Some-Questions-for-Bernankes-Critics?scode=020648>
- ^{vi} www.federalreserve.gov/newsevents/testimony/bernanke20110107a.htm
- ^{vii} Long, Roderick T. 2006. "Realism and Abstraction in Economics: Aristotle and Mises versus Friedman." *Quarterly Journal of Austrian Economics* 9, no. 3: 3-23. *EconLit*, EBSCOhost (accessed April 22, 2011).
- ^{viii} Menger, Carl Preconceptions of Economic Science (1900)
- ^{ix} Mises, Ludwig : "The Historical Setting of the Austrian School of Economics "[1,2] <http://mises.org/hsofase/ch2sec3.asp>
- ^x Mises, Ludwig: "The Historical Setting of the Austrian School of Economics" [7]
- ^{xi} Friedman, Milton "A Monetary History of the United States, 1867-1960"
<http://www.cato.org/events/031121bf.html>
- ^{xii} Friedman, Milton "A Monetary History of the United States, 1867-1960"
- ^{xiii} Greenspan, Alan "Gold and Economic Freedom" http://www.constitution.org/mon/greenspan_gold.htm
- ^{xiv} "We're all socialists now" <http://www.newsweek.com/2009/02/06/we-are-all-socialists-now.html>
- ^{xv} Smith, Barry. 1990. "Aristotle, Menger, Mises: An Essay in the Metaphysics of Economics." *History of Political Economy* 22, no. 5: 263-288. *EconLit*, EBSCOhost (accessed April 22, 2011).
- ^{xvi} Roubini Political Biases in Fiscal Policy: Reconsidering the case for the Maastricht fiscal criteria - Monetary and Fiscal Policy in an Integrated Europe, 1995
- ^{xvii} **Friedman,**
- ^{xviii} Bernanke, Ben. Congressional Hearing 101st session. 5 July, 2006
- ^{xix} Bernanke, Ben. Congressional Hearing 102nd session. 17 July, 2007
- ^{xx} Simon Kuznets, 1934. "National Income, 1929-1932". 73rd US Congress, 2d session, Senate document no. 124, page 7. <http://library.bea.gov/u/?SOD,888>
- ^{xxi} European Parliament, Policy Department Economic and Scientific Policy: Beyond GDP Study <http://www.beyond-gdp.eu/download/bgdp-bp-goossens.pdf>
- ^{xxii} Desecration of Patriotism, http://www.huffingtonpost.com/larry-gellman/bushs-worst-legacy---the_b_116894.html
- ^{xxiii} Robert Batemarco GNP, PPR, and the Standard of Living by Robert Batemarco, from the journal Review of Austrian Economics
- ^{xxiv} "Hayek on Keynes" , 1979 <http://www.youtube.com/watch?v=VqU-AZh-wqU>
- ^{xxv} Rockwell, Lewis, "Predicting Reality"
- ^{xxvi} "Hayek on Keynes" , 1979 <http://www.youtube.com/watch?v=VqU-AZh-wqU>
- ^{xxvii} Horwitz, steven
- ^{xxviii} "On Hayek" http://nobelprize.org/nobel_prizes/economics/laureates/1974/press.html
- ^{xxix} Aguilar, Victor Did Mises and Hayek Predict the Great Depression?
<http://axiomaticeconomics.com/MisesHayek.php>
- Eddlem, Thomas, "Austrian Economics Rising" Down
- ^{xxx} Aguilar, Victor Did Mises and Hayek Predict the Great Depression?
<http://axiomaticeconomics.com/MisesHayek.php>
- ^{xxxi} Eddlem, Thomas, "Austrian Economics Rising" Down With the Present
<http://www.lewrockwell.com/eddlm/eddlm38.1.html>
- ^{xxxii} Heilbroner, Robert (2000). The Worldly Philosophers. pp. 278–8. ISBN 0671634828.

^{xxxiii} Taleb, Nassim. "*Taleb Nassim is angry with economists today*" <http://www.youtube.com/watch?v=ABXPICWjFlo>