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Austrian Trade Cycle Theory and Rationality[i]

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Abstract: In this paper I show that Austrian trade cycle theory is fully consistent with rational expectations. I also compare and contrast rational expectations with an alternative theory of rationality and show that Austrian trade cycle theory is consistent with this alternative theory of rationality. I achieve the above by first providing an exposition of Austrian trade cycle theory. I then proceed to show that one would have to associate omniscience with rationality to claim that Austrian trade cycle theory is inconsistent with rationality. I also show that because the central bank manipulates the money supply in an erratic manner, it is impossible to use Austrian trade cycle theory to predict exactly when the current cycle will end and the next cycle will begin. Further, I show that even if all businessmen and entrepreneurs had rational expectations, the trade cycle would still occur. I show that because of the nature of the monetary and banking system we have today, the trade cycle must necessarily occur, and that it is supporters of the current system who have irrational expectations.

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1 Introduction

Many criticisms of Austrian trade cycle theory (from now on ATCT) have been made. The most potentially damaging criticism is the claim that ATCT is not consistent with "rational expectations."[1] This attack on ATCT says that if the central bank regularly creates the trade cycle through a manipulation of the supply of money and credit, businessmen and entrepreneurs should be able to learn from these repeated episodes and not make the same mistakes over and over again. According to this argument, by learning from the repeated episodes of the trade cycle, businessmen and entrepreneurs should be able to prevent the central bank from continuously creating such a cycle by counteracting the effects of the central bank's actions. In fact, according to this argument, entrepreneurial individuals should be able to profit from the central bank's actions. At a minimum, businesses should be able to use ATCT to make themselves immune from the central bank's actions if, indeed, ATCT is correct. In essence, if ATCT is correct, businesses should be able to use it to anticipate the different phases of the cycle by predicting when they will occur. They should be able to profit from the cycle by using the theory to position themselves appropriately based on which phase of the cycle is approaching.

Although there have been many other arguments made against ATCT, most of them are not very significant. Many of them are not very strong criticisms against ATCT. Further, many of them have been addressed. For instance, it has been claimed that there is no historical evidence to support the theory and that the theory is too complex to be valid. It is outside the scope of this paper to address these arguments, as well as many other arguments. However, both of these arguments against ATCT, and many more, have been addressed.[2]

As I said, the rational expectations argument against ATCT is the most potentially damaging and, therefore, ATCT must be defended against this argument if it is

[1] For examples of authors who make such a criticism, see Tyler Cowen (1997, p. 77) and Richard E. Wagner (1999, p. 71).

[2] For the claim that historical evidence does not support the theory, see Robert A. Gordon (1961, p. 360). For the claim that the theory is too complex, see Leland B. Yeager (1986, p. 380). These and many other arguments against ATCT are addressed in Roger W. Garrison (1986, pp. 447-51). Walter Block (2001, p. 63) also provides references to a number of criticisms and rebuttals. He also provides rebuttal to a number of criticisms as well in that paper.

to remain as a valid explanation of the trade cycle. It is important that ATCT be consistent with rational expectations because rationality is a fundamental characteristic of human beings. If the theory cannot be defended against this argument, it would be proper to abandon it. Fortunately, ATCT can be defended and its abandonment is not necessary.

In this paper, I will show that ATCT is fully consistent with rational expectations, as that term is used by contemporary economists. I will also show that the concept of rationality that contemporary economists use is not a very good one, in that it does not get to the root of what it means to be rational. Because of this deficiency, I will present an alternative view of what rationality is and show that ATCT is also consistent with that.[3]

Some "Austrian" economists have addressed the rational-expectations criticism of ATCT; however, these economists do not provide a complete analysis of this criticism.[4] They do not focus on the role that changes in the rate of profit have on the actions of businessmen and entrepreneurs, they do not show how it is government officials and economists who support fiat money and fractional reserve banking that have irrational expectations, they do not expose the errors in contemporary economists' conception of rationality, and they do not offer a better alternative to the contemporary economists' conception of rationality. These are the major contributions I make in defending ATCT from the rational-expectations critique.

2 Austrian Trade Cycle Theory

To understand what I mean when I use the term ATCT, I will give a very brief description of the explanation of the trade cycle that this theory offers. My exposition of the theory essentially follows the presentations given by Ludwig von Mises, F.A. Hayek, Murray Rothbard, and George Reisman.[5]

[3] This paper is based on a portion of my dissertation. See Brian Simpson (2000, pp. 128-32).

[4] See Ludwig von Mises (1943, pp. 251-2), Gerald P. O'Driscoll Jr. (1977, pp. 102-8), Garrison, pp. 445-7, and Block, pp. 65-8 for examples.

[5] See Ludwig von Mises, (1966, pp. 550-71), F.A. Hayek, (1967, pp. 32-100), Murray Rothbard, (1962, vol. 2, pp. 850-879), and George Reisman, (1996, pp. 938-40). George Reisman (2007, 2002, and 1999) also

In its most basic form, ATCT says that the trade cycle results from a rapid increase in the money supply. As the money supply expands at a rapid rate, spending, business revenues, and profits in the economy increase. This provides businesses with an incentive to expand their investment activities. This creates the expansion phase of the cycle.

The additional revenue and profits created by the money injected into the economy are not the only factors providing businesses with an incentive to expand. There is also the fact that, as the money supply expands at a rapid rate, the rate of interest is prevented from rising initially, at least to as great of an extent as the rate of profit. The rate of profit rises immediately because of the additional revenue generated by the increase in the money supply and volume of spending. However, interest rates will not rise so rapidly (or may even fall) as the new money enters the economy. This is due to the way most of the new money enters the economy. Due to the fractional reserve nature of our banking system, most of the new money enters the economic system in the form of an additional supply of credit. This increased supply of credit initially puts downward pressure on interest rates (at least relative to the rate of profit) and provides businesses with an additional incentive to expand. This is the case because not only do businesses face an increase in the rate of profit they can earn on investments, they face an artificially low interest rate that decreases the cost of using debt to finance any new investments. The changes in interest rates and the rate of profit also have the effect of lengthening the structure of production.

The structure of production refers to the relative production of capital goods versus consumers' goods in the economy; it refers to how roundabout the methods of production are in the economy. The greater relative production of capital goods, the more roundabout the methods of productions in the economy. More roundabout methods of production ultimately lead to a greater absolute production of consumers' goods, even though the relative production of consumers' goods is less. A lower interest rate and a higher rate of profit lengthen the structure of production; that is, they cause an increase in the relative production of capital goods because more roundabout methods of production will become more profitable relative to less roundabout

provide some excellent recent applications of ATCT that showcases its power to explain the perpetual cycle of boom and bust.

methods of production due to the compounding effects involved. In other words, lower interest rates and high rates of profit increase the present discounted value of long-term investments relative to short-term investments and thus increase investment in the former relative to the latter.[6]

The contraction occurs when the expansion of the money supply ends (or even just slows sufficiently) so that spending, revenues, and profits decline (or increase at a less rapid rate) and businesses contract their activities. At this point, the economy enters a period of recession or depression. As a part of the contraction, the rate of interest briefly rises relative to the rate of profit and provides a further incentive for businesses to contract their activities, since this means the cost of financing investment activities has risen. Further, the structure of production shortens due to the changes in interest rates and the rate of profit.

What does this mean for the individual businessman? During the expansion businessmen and entrepreneurs will find it easier to sell their goods into a growing revenue stream. This makes it possible to operate with lower cash balances relative to their spending. This phenomenon is witnessed in the fact that the demand for money, as measured by the velocity of circulation of money, typically remains low, and often declines, during inflationary expansions. Further, the "easy" credit policy on the part of the central bank, and the low interest rates that are indicative of such a policy, also makes it possible for businesses to operate with lower cash balances. This is because with an "easy" monetary policy, businesses find it easy to raise needed funds in the loan market, so they do not need to hold onto as many funds to finance their spending. When the central bank has followed such a policy for a significant period of time, profit-seeking businessmen find it all too tempting to take advantage of the prevailing economic data. Eventually they make investments to expand their operations by hiring workers and/or expanding their facilities. The expansion might occur slowly at first, but as long as the inflationary policies of the central bank continue – and accelerate – the real profit opportunities become harder to pass up. Even if businessmen understand the opportunities may be short lived, the incentive to invest to try and take advantage of them become stronger the longer the central bank pursues an "easy" monetary policy.

[6] For more on the structure of production, see Hayek, pp. 37-68.

The expansion does not affect all industries at the same time and to the same extent. As was discussed above in connection with the structure of production, industries farther removed from final consumption tend to expand more than industries closer to final consumption. Further, industries that are particularly sensitive to changes in interest rates, such as the construction industry and stock market, are also susceptible to dramatic fluctuations in their scale of economic activity. The dramatic rise in housing prices for a number of years in the recent past (through 2006) in the United States and the subsequent fall in prices starting in 2007 is just the most recent example of the boom-bust cycle. The Federal Reserve's "easy" monetary policy from late 2000 to late 2003 fueled the dramatic run-up in housing prices through 2006. Its "tight" monetary policy from early 2004 to mid-2007 precipitated the housing crisis in the United States.[7]

Less recently, the tale of Cisco Systems, the maker of computer networking equipment, during the inflationary expansion of the latter 1990s and the recession of the early part of this millennium provides an excellent description of the details faced by firms during the boom-bust cycle. During the latter 1990s inflationary expansion, Cisco's revenues grew at an annual rate of 53-percent. This is unheard of for a multibillion-dollar company. Toward the end of the expansion, it doubled its payroll to 44,000 employees in just one-and-a-half years. The company had 500 recruiters just to sift through job applications. It acquired a company, on average, once every other week. New employees were shown charts projecting a 30-percent annual increase in the company's stock price. This turned out to be conservative, as the stock price doubled each year, on average, throughout the 1990s.

In the last weeks of 2000, things abruptly changed. Companies stopped buying from Cisco, as they realized they had massively over built their computer networking infrastructure. Revenue fell for the first time in company history: by mid-2001 revenue had fallen 33-percent from where it had been six months earlier. The company had to engage in its first-ever mass layoff in 2001.

If Cisco Systems was to survive, a number of things had to be changed. During the 1990s inflationary expansion, Cisco emphasized increased revenues. After the bust hit, it had to demand profits. During the expansion, Cisco had 22 groups, with

[7] See Reisman (2007) for a detailed analysis, based on ATCT, of the housing crisis.

more than 100 employees, creating customer-service policies. One group did nothing but track the other 21. When the bust hit, company management acted to cut these groups to one with fewer than 10 employees. During the expansion, Cisco raced to devour start-ups and build niche products. When the bust hit, the company focused on building fewer, more versatile products internally.[8]

While the story might be more dramatic for Cisco Systems than most companies, the basic tale is the same: one of increased business due to a dramatic inflation of the money supply and volume of spending. Once the inflation slows or stops, companies hit the wall, as Cisco did in late 2000 after the slowing of the inflation by the Federal Reserve starting in 1999. Revenues decline or fail to rise sufficiently, workers must be laid off, and investment plans that depended on the continuation of the inflation must be scrapped if the company is to have a chance to survive. Fearing the harmful effects of possible deflation, the central bank begins to inflate again, using the recession or credit crunch as an inflationary refueling period. This was exactly the situation faced in the United States in early 2008. At that time the Federal Reserve used the housing crisis as a rationalization to resume an "easy" monetary policy (as witnessed by its targeting of a lower Federal Funds Rate).

3 Austrian Trade Cycle Theory and "Rational Expectations"

As I state, the above boom-bust cycle is created by the central bank's manipulation of the supply of money and credit, with the help of the banking system. If this is so, why do businessmen and entrepreneurs repeatedly get fooled by the central bank's manipulation of money and credit? Why are they repeatedly duped into expanding, only to have to eventually rid themselves of the investments they engaged in during the expansion? Why don't they learn from their past mistakes and prevent the central bank from leading them into an artificial expansion? In fact, why aren't they able to profit from the central bank's repeated actions? This is the basic argument made by rational expectations theorists against ATCT. In order to understand why ATCT is consistent with rational expectations, one must first understand what exactly is meant by that term.

[8] See Scott Thurm (2003).

Rational expectations, as contemporary economists use the term, means that people's expectations of the future are not systematically wrong and that people use all available information when forming their expectations. It says people can learn about changes taking place in the economy and correct any mistakes they made in the past. This is the view expressed in the famous article by John Muth that eventually led to the development of the "rational expectations" approach in mainstream economics. Muth states it most clearly when he says that the assumption of rationality is dropped whenever systematic biases and incomplete or incorrect information are incorporated into one's analysis.[9] Even though this does not provide a very good understanding of what it means to form expectations rationally, ATCT does not imply that businessmen and entrepreneurs make systematic errors or that they do not correct their mistakes. Businessmen and entrepreneurs act fully within the limits of rational expectations, as that term is used by contemporary economists.

The first thing that can be said in defense of ATCT is that the same economists who use rational expectations theory to argue against ATCT also typically recognize that ATCT is not a very well known or widely accepted theory among economists. If this is true, it is hard to believe that many businessmen and entrepreneurs, who are taught trade cycle theory by economists, know about the theory. Therefore, how could they use a theory they most likely have never even heard of to protect themselves or profit from the cycle?[10] One cannot be said to be acting inconsistently with rational expectations if one does not have the knowledge necessary to correct one's actions. In fact, to the extent that other theories of the trade cycle that do not accurately explain the cycle are prevalent among economists, and thus among businessmen and entrepreneurs, if businessmen and entrepreneurs act on these theories, this would contribute to the errors they make in connection with the trade cycle.

Further, even if businessmen and entrepreneurs did have knowledge of ATCT, and thus would be in a position to use it to their advantage, one must remember that being rational does not imply being omniscient.[11] Businessmen and entrepreneurs do not have a crystal ball they can use to predict the future. They cannot know every move

[9] See John F. Muth (1961, pp. 330 and 333). For a similar view, see Thomas J. Sargent and Neil Wallace (1975, pp. 246-7).
[10] A similar point is made in Block, p. 65 and Garrison, p. 442.
[11] Also on this point, see Block, p. 67.

that a central bank, private banks, or the demand for money will make. They cannot predict the exact lag between a change in the money supply and a change in the volume of spending, or in which parts of the economy the new money will be spent first. This is true even if the central bank follows a policy of "inflation targeting" and, therefore, attempts to stabilize the general rate of price increases. First, one cannot know when or if the central bank will change its "inflation target." Second, even if the general rate of change in prices is stabilized, changes in the prices of individual goods could still fluctuate dramatically, providing an incentive for industries with favorable price changes to expand. Further, and more significantly, one cannot predict exactly when the prevailing economic data will change and cause the central bank to have to shift its policy from accelerating to slowing the inflation of the money supply (or vice versa) to maintain its target. In addition, even if the central bank is targeting a particular rate of price increase, at times it will be following an "easy" monetary policy to maintain its target. Even if businesses are aware of the policy of "inflation targeting" the "easy" monetary policy will still provide businesses with an impetus to expand. If businessmen and entrepreneurs are continuously faced with increases in revenues and profits, and interest rates that remain low relative to the rate of profit (regardless of what policy the central bank chooses to follow), sooner or later they will expand their business activities. Further, the longer and more rapid the increase in the money supply and spending, the more likely businesses will expand (and the greater that expansion will be).

ATCT does not imply that businessmen and entrepreneurs make systematic errors because the central bank does not manipulate the money supply to create a consistent pattern of expansions and contractions. For instance, the central bank does not create a contraction once every five years. If this were the case, businessmen and entrepreneurs could exploit this pattern and incorporate it into their expectations. Recessions do not occur at an unchanging frequency; however, they occur in an erratic manner because of the erratic manner in which the central bank manipulates the money supply. Therefore, no businessman or entrepreneur should be able to know what the central bank is going to do to the money supply tomorrow, next week, next year, or in the next decade. Uncertainty in both the duration and magnitude of the changes in the supply of money and credit is what helps to generate the cycle (or make a particular cycle more severe).

The trade cycle, in a fundamental sense, does not stem from the errors of entrepreneurs and businessmen; it stems from the nature of the monetary and banking system we have today. It occurs due to the nature of fiat money and fractional reserve banking.[12] Fiat money gives the central bank the ability to easily manipulate the money supply (specifically, the amount of standard money or the monetary base). It gives them the power to increase the money supply at a rapid rate, thus creating an expansion, and then decrease it or slow its increase, thus creating a contraction. Further, as stated earlier, the fractional reserve nature of the banking system creates the effects in the loan market which provide further incentives to businessmen and entrepreneurs to expand or contract their activities. The fractional reserve nature of the banking system also makes possible potentially large and rapid swings in the money supply due to the creation and destruction of fiduciary media.

Under such a system, the actions of businessmen and entrepreneurs cannot be expected *not* to create the trade cycle. This is the case because if the money supply is being increased at a rapid rate, the incentives to expand are in place and it will only be a matter of time before businesses begin to expand. They may not expand if the increase in money and spending is short-lived or at a very low rate, but the longer and more rapid the increase, the higher the profits are that can be earned, the lower interest rates will be relative to the rate of profit, and thus the more likely it is that businesses will expand their activities. In other words, the incentives to expand their activities in response to rapid increases in the money supply exist whether businessmen and entrepreneurs know about and believe in ATCT or not; whether they can use the theory to their advantage or not; and whether they know how the money supply is changing and affecting the economy or not. Those incentives are in place due to the nature of our fiat money monetary system and fractional reserve banking system. If the increase in the money supply continues long enough, and at a rapid enough rate, the movement in the rate of profit and interest rates creates a strong incentive to expand, and eventually, in order to attempt to profit from the prevailing economic data, businesses will expand.[13]

[12] One does not actually need both fiat money and fractional reserve banking at the same time to create the trade cycle; both are sufficient by themselves to create the cycle. However, the two together have the potential to create much wider swings in the cycle. Further, fractional reserve banking provides a much stronger influence in creating the trade cycle than does fiat money.

[13] See Block, p. 66 and Garrison, p. 446 on this point also.

This brings me to the actual role of expectations in the trade cycle. As I have said, businessmen and entrepreneurs are not omniscient, and it is difficult for them to know exactly how an increase in the money supply will affect the demand for their products from year-to-year. However, when the increase is fairly slow and constant, businessmen and entrepreneurs can easily take it into account and it will not cause them to expand. They will simply adjust their prices, borrowing, and spending accordingly. Here, because the increase in money, spending, and credit is slow and steady, businessmen's expectations tend to accurately reflect the changes in these parameters, and the actions they take based on these expectations tend to be in line with what is actually occurring in the long run, so no cyclical expansion and contraction take place.

It is only when the increase in demand for their products, due to an increase in the money supply, is greater than expected, that the incentive to expand will be present. It may be that businesses do not expand immediately when spending for their products is greater than expected. They may adjust their prices initially to adapt to the changing conditions. However, if spending for their products repeatedly outstrips their expectations, and the rate of profit continuously remains high relative to interest rates, sooner or later businessmen and entrepreneurs will expand in response to these incentives. In essence, when businessmen and entrepreneurs *expect* to be able to profit from the increase in money and spending, they will expand their activities.[14] Hence, one can see that expectations (whether "rational" or "adaptive") can easily be incorporated into ATCT. However, such expectations will not prevent the trade cycle from occurring.

Some businessmen and entrepreneurs may even realize that the expansion is only temporary and that the relatively high profits and low interest rates will come to an end. However, this might not stop them from making investments based on the prevailing distorted data. To the extent that they think they can divest at the right time or that any losses they might incur due to the eventual contraction will be more than offset by the gains from the expansion, they will have a strong incentive to engage in such investments. Businessmen and entrepreneurs cannot escape the prevailing economic data. All they can attempt to do is profit from it, and, again, the longer

[14] For more on this, see Reisman (1996, pp. 588, 938-40, and passim).

and more extreme the expansion, the greater the incentive for businessmen and entrepreneurs to make such investments.

Businessmen and entrepreneurs may make errors during the trade cycle due to uncertainties associated with the size and duration of the expansion, or due to the readily available supply of money and credit during the expansion; however, these errors are not systematic, and businessmen and entrepreneurs cannot, ultimately, be blamed for such errors or for the existence of the trade cycle. Responsibility for the trade cycle, and the errors businessmen and entrepreneurs make in connection with it, must ultimately be placed where it properly belongs: on the institutions of fiat money and fractional reserve banking, and the economists and government officials who support such institutions. It is economists and government officials that have created the system within which businessmen must act. Businessmen are merely reacting to the incentives provided by a system that is fundamentally flawed. It is flawed because it creates an environment where the trade cycle is inevitable.

If anyone is making systematic errors, it is the government officials and economists who support the institutions of fiat money and fractional reserve banking. They repeatedly commit the error of supporting a monetary and banking system based on these institutions, despite the flaws that are inherent in the system, and in spite of the fact that these flaws have been recognized by Austrian economists and other economists for more than a century. If contemporary economists and politicians acted in accordance with rational expectations, when faced with the repeated episodes of boom and bust that such a system creates, they would learn from their mistakes and correct their errors. That is, they would take the necessary actions to abandon the current system and replace it with its opposite, the only system that renders monetary induced trade cycles virtually impossible: a 100% reserve gold based monetary and banking system.

I am not going to discuss the virtues of a 100% reserve gold based monetary and banking system. That would fall outside the scope of this paper and would take at least another paper to address. If one wants to read about the virtues of gold and 100% reserves, see the relevant readings in von Mises, Rothbard, or Reisman.[15]

[15] These include Ludwig von Mises (1981, pp. 456-459, and 480), Rothbard in Leland B. Yeager (1962, pp. 94-136), and Reisman (1996, pp. 951-63).

4 Austrian Trade Cycle Theory and a Better Understanding of Rationality

It is important, at this point, to discuss an alternative theory of rationality. Contemporary economists' concept of rationality is the source of much confusion in economics, including the source of much of the confusion regarding the validity of ATCT.

The arguments I have made up until this point in defense of ATCT are based on the definition of rational expectations as used by contemporary economists. However, this definition is not a very good one because it does not get to the most important characteristic of rationality. A good definition must be based on the most important, or essential, characteristic(s) of a concept. Aristotle was the first philosopher to recognize the importance of defining terms based on essential characteristics.[16] With respect to man, for instance, Aristotle identified man's defining characteristic as his rational faculty. What Aristotle was referring to when he spoke of the rational faculty was man's reasoning mind.[17] Reason is the tool that identifies and integrates the material provided by man's senses.[18] It allows him to think at the conceptual level (i.e., in terms of concepts, principles, and ideas). It is the faculty that separates man from the lower animals.

Based on the nature of man's rational faculty, to be rational means to use reason or, equivalently, to base one's thoughts and actions on the facts of reality and logical analyses of those facts. Likewise, to act on emotions or on ideas not based on facts and logic is to act contrary to reason and rationality. If one is rational one will not make systematic errors, but not making systematic errors is just an effect of acting rationally; it is not rationality itself. Therefore, to define rationality based on the absence of systematic error (which is what contemporary economists do) is to take an effect, or non-essential characteristic, of rationality and make that the essence of rationality.

[16] To see Aristotle's statements regarding definitions, see Richard McKeon (1947, pp. 76-77).

[17] On Aristotle's definition of man, see W.D. Ross (1928, pp. 130, 980, 1095, and passim).

[18] On this definition of reason, see Ayn Rand (1964, p. 22). For more on the Aristotelian method of definition and this view of rationality, see Ayn Rand in Harry Binswanger (1986, pp. 117-21, 404-5, and 407-10) and the references provided there.

As long as businessmen and entrepreneurs use reason or act based on facts and logic, they are acting rationally. Further, as long as they form their expectations based on reason, their expectations are rational. In many cases, it can be rational to base one's expectations on past experience alone (if that is the only information one has available or is the only information that one believes to be relevant). Therefore, so-called adaptive expectations can be rational. Further, a person can make mistakes and still be rational. The focus of the concept rationality is on the process by which one attempts to gain knowledge, not on the outcome of that process. Of course, if one is rational, he will take the necessary steps to correct any mistakes he might make.

Some may think that differences between definitions are just semantic differences, that definitions are essentially arbitrary statements of what a concept is, and that differences in definitions do not play a very significant role in intellectual life or in economics. However, such a belief is grossly mistaken. Definitions are not arbitrary. The definition of a concept helps to distinguish one concept from all other concepts, and it determines what concretes in reality we identify with a particular concept. A definition can help or hinder one's conceptual understanding of what something is. Good definitions help us achieve a clearer understanding of what something is. Poor definitions lead to confusion and false conclusions.[19]

If definitions were truly arbitrary, one could literally define something to be anything one wanted. For instance, a horse could be defined as a doughnut shaped flotation device. If such a method of definition were taken seriously, it would lead to confusion and false conclusions on a massive scale. Fortunately, those who claim that definitions are arbitrary usually do not act consistently on that belief. However, to be in a position where we must rely on the inconsistencies of people is, indeed, to be in a very precarious position.

A proper understanding of rationality takes the focus away from whether or not a person is making errors and places the focus on the process that one uses to attempt to gain knowledge. To put the focus on the absence of error is to associate

[19] The false conclusion that ATCT is not consistent with rational expectations is just one example of the false conclusions to which bad definitions lead. For more on the cognitive function of definitions, see Leonard Peikoff (1991, pp. 96-105). Also, for another good economic example of the confusion and false conclusions to which a bad definition leads, see Reisman (1996, pp. 920-2). There he shows the misunderstandings created by contemporary economists' definition of inflation as rising prices.

omniscience with rationality. It is this confusion that leads some economists to say that ATCT does not incorporate "rational expectations." By putting the focus on the process of using reason, or acting based on facts and logic, one can eliminate this confusion and the inappropriate distinction between various types of expectations (such as adaptive expectations and rational expectations). One can also understand that being rational does not guarantee that one will not make errors. Finally, one can say that in the context of a fiat money, fractional reserve monetary and banking system, businessmen and entrepreneurs are acting as rationally as possible given the fundamentally flawed nature of the system within which they must act.

5 Conclusion

As one can see, ATCT is perfectly consistent with rational expectations, as contemporary economists use that term, and it is also consistent with a better understanding of rationality. Businessmen and entrepreneurs do not need to make systematic errors in order for ATCT to be able to explain the trade cycle. However, one must always keep in mind that being rational does not imply omniscience. Businessmen and entrepreneurs cannot see the future and know exactly how long an expansion will last. As long as businessmen and entrepreneurs are acting based on facts and logic, they are acting rationally, even when they do make errors. Furthermore, businessmen do not create the economic system within which they act and, therefore, cannot escape the incentives that such a system creates. Namely, they cannot escape the incentives created by a fiat money, fractional reserve monetary and banking system. Such a system is a breeding ground for periodic economic disasters. The rational thing to do is to get rid of this system and replace it with a stable system – a 100% reserve gold based monetary system – within which more rapid rates of economic progress can occur.

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