

Needed in the Context of the Renewed Popularity of Keynes's Ideas: An Analysis of his Errors

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This paper provides a detailed exposition of Keynes's theory of why depressions occur in a market economy, doing so by allowing Keynes himself to describe his theory, for which the article draws mainly from *The General Theory of Employment, Interest, and Money*. The basic reason Keynes gave for why depressions occur is that there is too much saving and too little consumption and investment. After explaining his theory of depressions, the article proceeds to show the major errors Keynes commits. These errors include believing that falling wage rates lead to decreased spending and a lower rate of profit, believing more investment leads to a lower rate of profit, equating gross values with net values, and equating saving with hoarding. This paper is relevant to current events in which governments around the globe have used various Keynesian-inspired "stimulus packages" in an attempt to help economies recover from the financial crisis and recession of 2008.

Key Words: John Maynard Keynes; Keynes's theory of depressions; errors by Keynes; Savings; Investment; Consumption; Stimulus packages; Business cycles; Trade cycles.

Introduction

The ideas of the late John Maynard Keynes have been extensively discussed, analyzed, and debated. There is special interest in his ideas at the present time in light of the recent financial crisis and recession. For some examples of analyses and presentations of Keynes's ideas, see A.C. Pigou (1936), Étienne Mantoux (1946), Alvin H. Hansen (1953), Henry Hazlitt (1959), Mark Skousen (1992), and Robert G.

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King (1993). Keynes's ideas have also given way to neo-Keynesian economics and now New Keynesian economics. So why should we continue to discuss Keynes's ideas?

There are a number of reasons to continue the discussion. If for no other reason, his ideas are worth studying from the perspective of the history of economic thought. These are the ideas of an extremely influential twentieth-century economist and studying them will help us understand them. More importantly, even though Keynes himself is history, his ideas are not. They are still popular in economics and still used as the basis for government policies, such as so-called fiscal policy and the recent "stimulus packages" that have been used during the current recession. In fact, there has been somewhat of a revival of Keynesian economics due to the recession and financial crisis of 2008. Studying these ideas can help us understand why they are so popular and how they influence government policy.

More specifically, Keynes developed a detailed theory of why depressions occur. While his exact description of why depressions occur has been largely abandoned, many of the ideas that were a part of his theory are still popular today. In fact, most economists are either Keynesians or embrace significant aspects of Keynesian ideas.

To best understand his ideas, a presentation of his theory of depressions will be provided in this paper. The theory will be presented as expounded in his works, focusing mainly on *The General Theory of Employment, Interest, and Money* (1997 [1936]), but referring to his other works as necessary. This will give the best statement of what his views were on this subject, as opposed to someone else's interpretation of his views. After a presentation of his ideas, an analysis will be provided to show the major errors.

Keynes's Theory of Depressions

Keynes's view was that a market economy would be in a chronic state of depression. In connection with the unemployment that would exist in this state, he said ". . . the evidence indicates that full, or even approximately full, employment is of rare and short-lived occurrence." He also said, "it [the economic system] seems capable of remaining in a chronic condition of sub-normal activity for a

considerable period . . .” John Maynard Keynes (1997 [1936], pp. 249-50)¹ One must keep in mind that when Keynes wrote *The General Theory* he was referring to an economy that was in a state of depression and that that is what he meant by “subnormal activity.”

This chronic state of “sub-normal activity,” according to Keynes, is caused by too much saving and too little consumption and investment. In Keynes's words, “If the propensity to consume and the rate of new investment result in a deficient effective demand, the actual level of employment will fall short of the supply of labor potentially available . . .” (p. 30) Another statement from *The General Theory*, in which Keynes favorably quotes J.A. Hobson and A.F. Mummery, states what Keynes means more clearly: “an undue exercise of the habit of saving is possible, and . . . such undue exercise impoverishes the Community, throws labourers out of work, drives down wages, and spreads that gloom and prostration through the commercial world which is known as Depression in Trade.” (p. 367)

The problem of too much saving and the chronic state of depression is especially true for a wealthy society. Keynes states:

the richer the community, the wider will tend to be the gap between its actual and its potential production. . . . [A] poor community will be prone to consume by far the greater part of its output, so that a very modest measure of investment will be sufficient to provide full employment.

A “rich” community, on the other hand, “will have to discover much ampler opportunities for investment if the saving propensities of its wealthier members are to be compatible with the employment of its poorer members.” Keynes says that “[t]his analysis supplies us with an explanation of the paradox of poverty in the midst of plenty . . .” (pp. 30-31) In essence, Keynes is saying that we are poor because we are rich.

This claim by Keynes typically goes by the name of the “Paradox

¹ All page numbers for *The General Theory* refer to this edition unless otherwise noted. Throughout this paper, whenever only page numbers are cited, the reference is to this edition of *The General Theory*.

of Thrift.” It says that saving can lead to less spending for goods, lower employment, less production, lower income, a lower standard of living, and, paradoxically, less savings. If this point is not clear, Keynes makes it clear when he says:

It follows that of two equal communities, having the same technique but different stocks of capital, the community with the smaller stock of capital may be able for the time being to enjoy a higher standard of life than the community with the larger stock; though when the poorer community has caught up [with] the rich – as, presumably, it eventually will – then both alike will suffer the fate of Midas.” (p. 219)

To sum up this point, if income outstrips consumption by too much (i.e., too much saving takes place), then investment will not be sufficient to absorb all the saving taking place. This will result in a reduction in demand, a rise in unemployment, and thus a fall in incomes.

In addition, Keynes believed the inducement to invest is weak, so it is unlikely to bridge the gap between the amount of income and consumption. Here is his statement on the subject: “there has been a chronic tendency throughout human history for the propensity to save to be stronger than the inducement to invest. The weakness of the inducement to invest has been at all times the key to the economic problem.” The reason for the weak inducement to invest is capital accumulation. He states, “To-day the explanation of the weakness of this inducement may chiefly lie in the extent of existing accumulations [of wealth and capital].” (pp. 347-348)

Capital accumulation leads to a low marginal efficiency of capital or MEC (i.e., rate of profit on new investment). On the link between capital accumulation and the MEC, Keynes states, “If there is an increased investment in any given type of capital during any period of time, the marginal efficiency of that type of capital will diminish as the investment in it is increased” (p. 136) It is important to understand why Keynes claims that an inverse relation between the MEC and net investment exists. It is one of the major shortcomings of Keynes’s argument for the chronic state of depression and will be

discussed extensively below in the criticisms of Keynes. Keynes says the inverse relation exists “partly because the prospective yield will fall as the supply of that type of capital is increased, and partly because, as a rule, pressure on the facilities for producing that type of capital will cause its supply price to increase” (p. 136) What this means is that firms face simultaneously lower selling prices and rising costs. More net investment leads to lower selling prices for the greater supply of goods produced with the larger supply of capital. Costs rise because of the increased demand for capital and diminishing returns experienced in the facilities in which this capital is produced. These factors lead to higher purchasing prices for capital.

What does all of this imply, according to Keynes? Employment must be low enough and the standard of living sufficiently low enough to reduce the amount of savings. This is necessary to keep the supply of capital scarce and the MEC high enough to create an adequate inducement to invest.

How, Keynes asks, can an economy be lifted out of this chronic slump? He says that greater investment spending does not do it (at least not permanently) because it leads to a low MEC and thus requires a reduction in employment to raise the MEC sufficiently to maintain the inducement to invest at an adequate level.

Lower wages will not achieve full employment either because, according to Keynes, they lead to too much saving, less demand (in particular, not enough consumption), and thus, ultimately, no increase in employment. (pp. 257-267) In connection with entrepreneurs being able to employ more workers at lower wages, he states that they will only be able to do so if:

the community's marginal propensity to consume is equal to unity, so that there is no gap between the increment of income and the increment of consumption; or if there is an increase in investment, corresponding to the gap between the increment of income and the increment of consumption, which will only occur if the schedule of marginal efficiencies of capital has increased relatively to the rate of interest. (p. 261)

The problem, ultimately, is too much saving, for he goes on to

say:

if entrepreneurs offer employment on a scale which, if they could sell their output at the expected price, would provide the public with incomes out of which they would save more than the amount of current investment, entrepreneurs are bound to make a loss equal to the difference; and this will be the case absolutely irrespective of the level of money-wages. (pp. 261-262)

However, even if lower wages could somehow temporarily increase employment, there is also the fact that the lower wages would lead to more investment with the greater goods that will be produced by the additional employment and thus a lower MEC and an insufficient inducement to invest.

Keynes also makes the argument that wage rates cannot fall quickly enough in a free-market economy to achieve full employment. He claims that wages can only fall quickly if they are determined by “administrative decree” and that rapid drops in wage rates cannot occur in a “system of free wage-bargaining.” The need for rapid drops in wages exists because, according to Keynes, if wages fall too slowly it “serves to diminish confidence in the prospective maintenance of wages,” which leads to further unemployment. (p. 265) However, even if wage rates do fall rapidly, that will not increase employment because, although the rapid fall will promote more employment, it will also “shatter confidence,” which will, according to Keynes, offset its advantageous effects. (pp. 266-267) Whatever the reason, falling wages cannot achieve full employment. Keynes makes this point clear. After a long discussion of the effects of lower wages on the marginal propensity to consume, the MEC, and interest rates and how lower wages will not bring about the necessary effects, Keynes concludes that “There is, therefore, no ground for the belief that a flexible wage policy is capable of maintaining a state of continuous full employment.” (p. 267)

To get the economy out of the slump, according to Keynes, more consumption is needed. This will absorb the “excess” savings and will not reduce the MEC. Here is Keynes’s view on the benefits of consumption, quoting Hobson and Mummery favorably, “in the

normal state of modern industrial Communities, consumption limits production and not production consumption.” Keynes himself on the subject states, “capital is brought into existence not by the propensity to save but in response to the demand resulting from actual and prospective consumption.” (p. 368)

And what is the best way to promote consumption? Individuals cannot be relied upon to consume with extra income because they might save for their future. Increased consumption is best achieved, according to Keynes, through greater government spending. He says that the state must provide a guiding influence on the propensity to consume in a number of ways and that we need more so-called investment by the state to achieve full employment, including spending through so-called fiscal policy. (pp. 94-95 and 378-380) Keynes states that even “‘wasteful’ loan expenditure may . . . enrich the community on balance.” Even pyramid building and wars “may serve to increase wealth.” (pp. 128-129) In essence, we will be saved only if the government is sufficiently profligate.

To sum up Keynes's argument, full employment is a rare and short-lived occurrence in a market economy. The chronic state of depression that exists is caused by too much saving and too little consumption and investment. “Rich” communities are more susceptible to depression than “poor” economies because more consumption takes place in “poor” economies relative to total income. In addition, the inducement to invest is weak so investment is unlikely to overcome the gap between income and consumption. Nonetheless, more investment is not a long-term solution because it leads to more capital accumulation, a lower MEC, and thus a weaker inducement to invest. Furthermore, employment must be low enough to create an adequate inducement to invest. Lower employment means less income, less saving and investment, and a higher MEC. The only permanent solution to the chronic state of depression and high unemployment is more consumption. More consumption leads to a higher MEC, a higher inducement to invest, and greater employment. Finally, the best way to increase consumption is through greater government spending.

A Critical Analysis of Keynes's Theory of Depressions

Many criticisms have been made of Keynes's ideas. For a number of examples, see most of the references provided at the beginning of the introduction of this paper. See also, James Ahiakpor (2001), (1997), and (1995) and Roger Garrison (1985). One economist whose analysis of Keynes is particularly insightful because it gets to the fundamental problems with Keynes's ideas is George Reisman (1996, pp. 863-892). However, others' analyses are useful as well, such as Ahiakpor (1995) and (1997), Hazlitt (1959), and Skousen (1992). This paper draws upon these analyses and provides additional insights to create an even more powerful critique of Keynes's theory of depressions.

The first point to focus on is Keynes's claim that a fall in wage rates will not reduce unemployment. This is a major error. Normally one would think that a fall in wage rates would reduce unemployment. The falling wage rates make labor more affordable and more attractive to businesses to employ relative to capital goods and thus, in accordance with the law of demand, they hire more workers. Keynes gives many reasons why this will allegedly not occur. One reason is that reduced wages mean workers will allegedly not be able to afford to engage in as much consumption as they otherwise would have engaged in had wages not fallen. One error Keynes commits here is that he confuses wages rates, total wage payments, and consumption with total spending in the economy. For example, Keynes commits this error when he says that if entrepreneurs seek to reduce their costs by reducing the wages of workers, "the spending power of the public will be reduced by just as much as the aggregate costs of production." Keynes (1971 [1930], vol. 1, pp. 159-160) See Keynes (1997 [1936], pp. 257-261) and Joseph McKenna (1977, pp. 216-217) for more examples. The latter reference is a book by a neo-Keynesian economist that contains expositions of many of Keynes's ideas.

Hazlitt (1959, pp. 267-269) recognizes at least part of this error in Keynes. Hazlitt criticizes Keynes for confusing wage rates and total wage payments. Hazlitt also criticizes Keynes for claiming that a

decline in wage income will lead to a reduction in purchasing power. While this latter is akin to the criticism of Keynes that will be made in this paper regarding the relationship between total wage payments and total spending in the economy, it is not stated as precisely as in the exposition that follows.

Just because wage rates decline does not mean total spending in the economy will decline; in fact, it does not mean even that total wage payments will decline. This latter depends on the elasticity of demand for labor. If labor demand is elastic, total wage payments will increase with a decrease in wage rates. If labor demand is inelastic, total wage payments will decline. However, even if labor demand is inelastic, total spending in the economy does not necessarily decline. If firms spend less on labor, this simply means they have more funds available to purchase capital goods.

In fact, if wage rates decline, this implies a decrease in costs of production and higher rates of profit, and this makes many investments look more attractive to businesses. This will tend to promote less consumptive spending and more productive spending in the economy. So the economy will become more production oriented and less consumption oriented. Moreover, consumption is not the largest component of spending in the economy. Consumption represents only about thirty-five percent of all spending on goods and services.

This last claim might seem inaccurate given that consumption spending is about two-thirds of all spending for goods and services that comprise GDP (not including government spending, which is a form of consumption also). However, GDP does not measure spending for all goods and services in the economy. It is a measure of spending on *final* goods and services only. It leaves out all spending for intermediate goods and services. It does this to avoid the so-called multiple counting error. Whether one needs to be concerned with this alleged error when measuring gross spending in the economy is a separate issue. Here the point to understand is that spending for intermediate goods is just as much spending for goods as is spending for final goods. Every dollar of spending on intermediate goods

generates a dollar of revenue for a business in the same manner as does a dollar of spending on final goods. And when one includes the spending for intermediate goods, one sees that consumption spending is actually much less significant in the economy than is typically thought. See Reisman (1996, pp. 674-682 and 699-707) for a detailed analysis of GDP versus gross spending in the economy.

This knowledge is applicable to the argument here because it shows that there is an enormous amount of spending on goods and services that occurs in the economy that is not consumption spending. Spending by businesses represents the far greater portion of gross spending (which includes spending for both final *and* intermediate goods), and if consumption spending falls due to a decrease in total wage payments there is a much larger sector of the economy in which spending could easily increase to offset the reduced consumption spending, since any percent reduction in consumption spending would require a much smaller percent increase in spending by businesses to make up the difference. In fact, this is what would be experienced in the economy. If wage rates, total wage payments, and consumption decline and businesses thus have more funds available for the purchase of capital goods, a shift in spending from consumers' goods to capital goods would occur, not a decrease in total spending, on the basis of lower wage rates, lower costs of production, and thus more attractive investment opportunities.

Furthermore, if wage rates are falling during a depression or recession, which is the situation on which Keynes focuses, this would eventually draw funds out from businesses and cause them to spend more. In other words, the fall in wage rates would help lead to a recovery from the depression. Often the reason why businesses refuse to spend during a recession or depression is that they are waiting for costs to fall relative to the potential revenues that could be generated from an investment. So when wage rates fall this provides the needed impetus to induce businesses to spend. In fact, lower wage rates help lead to recovery during a depression from both sides: they reduce costs and lead to increased spending by businesses. Also, as a consequence of the increased spending by businesses to which lower

wage rates during a depression lead, they lead to greater total wage payments as well. Reisman (1996, pp. 883-884)

What about the claim that lower wages will lead to more investment spending and thus a lower MEC due to the lower selling prices for the greater supply of goods and the higher costs due to the greater demand for capital goods and the law of diminishing returns? One must keep in mind here the context Keynes is discussing. The context is whether a fall in wage rates can achieve full employment. Keynes confuses this context, which would lead to an increase in the quantity of capital goods demanded, with an increase in demand for capital goods. As I have stated, lower wages mean costs for businesses will be lower and this implies lower prices for the goods businesses produce (including capital goods). Businesses can afford to invest in more capital goods because prices are lower. This is a movement down along the demand curve for capital goods, not a shift of the curve. Greater demand for capital goods *would* lead to higher prices, but what is happening here is that lower wages are leading to lower prices for capital goods and thus a greater quantity demanded.

Further, businesses can afford to receive lower selling prices for the greater supply of goods produced with the additional capital goods because of the lower costs (i.e., lower wages and capital goods prices). In fact, the lower prices are brought about by the lower costs. So the rate of profit does not fall. This scenario is a case of an increase in the overall supply of goods due to lower wages (i.e., a shift to the right of the supply curve), not a shift of the demand curve for goods (whether capital goods or goods in general).

Keynes commits the error of context dropping when he claims that the prices of capital goods will rise. Reisman (1996, pp. 879-881) He drops the context that is being analyzed. In this case, what is being analyzed is a fall in wages. This inevitably leads to a fall in the prices for all goods, including capital goods. Instead, though, he drops this context and switches to a different scenario: an increase in demand for capital goods. This might be an interesting scenario but is not the one under investigation.

Further, diminishing returns on the variable factors added to the

factories producing the capital goods (i.e., Keynes's "pressure on the facilities for producing . . . capital" argument) is not fundamental to the case. The case under consideration by Keynes, again, is one of mass unemployment and unused productive capacity. Diminishing returns might only become significant once full employment is restored and factories are possibly pushed to the limits of their productive capacities. If that does occur, it becomes profitable to invest in greater factory capacity and better technology, which the recovery makes possible and which will overcome the diminishing returns. However, such a scenario is irrelevant to a recovery from mass unemployment, when capacity utilization rates of factories are low.

Keynes's argument regarding diminishing returns assumes a case in which the economy is in a state of full employment, capacity utilization rates in factories are high, and then the demand for capital increases. This might be a case in which the increased demand for capital would put pressure on factories that produce capital and cause the price of capital to rise, at least until factory capacity can be increased. However, this is not the scenario under investigation. Again, Keynes commits the error of context dropping.

Keynes's additional claim that rapidly falling wage rates will not reduce unemployment because it will "shatter confidence" is an arbitrary assertion. He provides no evidence for this claim. However, there is evidence that rapidly falling wages will reduce unemployment and spur recovery from a depression. The depression of 1920-21 provides a good example. Here, wage rates decreased by 19 percent in one year. Murray Rothbard (2000, p. 205) As a result, this depression was extremely short-lived. This rapid change in wages did not "shatter confidence." It led to lower costs, greater investment, improved profitability, and greater production. If the alternative is "high" wages, mass unemployment, misery, and poverty versus "low" wages, a job to work at every day, and a much higher standard of living, nothing could "restore confidence" more than a dramatic drop in wage rates. It will enable people to get on with the task of furthering their lives and happiness.

What about the claim that wages cannot fall rapidly enough in a free-market economy to achieve greater employment? The depression of 1920-21 should dispel that myth. This was the last depression during which the U.S. government followed a relatively non-interventionist policy. The alternative policy, what Keynes refers to as wages being set by “administrative decree” (i.e., central planning with regard to wage determination), will not lead to the appropriate level of wages. Government officials do not have the incentive of the profit motive to lead them to set the appropriate level of wages. In fact, it is government interference (such as minimum wage laws, pro-labor union legislation, and unemployment welfare) that prevents wages from falling appropriately (or from falling quickly enough) and leads to higher unemployment.

In the end, Keynes's claims, of whatever variety they come in, that lower wages cannot achieve full employment are an implicit denial of the law of demand. This is a fundamental and well-proven law of economics and is based on the nature of goods and the nature of man. Its existence is not to be questioned, but any claims to the contrary are.

What about the claim Keynes makes about the relationship between the MEC and net investment? The claim is that there is an inverse relationship between these two. However, the actual relationship is direct, especially during depressions, which is the situation that Keynes focuses on. Reisman (1996, pp. 881-883) Net investment occurs when spending by businesses exceeds the costs incurred by businesses in a given period. More net investment means more spending on capital goods and labor, which either directly or indirectly leads to more revenues and profits.

For instance, if a business purchases a capital good, this directly generates revenues and helps to contribute to the bottom line of the business that sold the capital good. If a business invests by purchasing labor, the income earned by workers will eventually be spent on goods and services the individuals need or want. These purchases will generate revenues and contribute to the profits earned by the businesses that sell the products and services the workers purchase.

So either way, revenue is generated through investment spending by businesses.

More significantly, during a depression or recession, net investment is typically low or negative. As I stated, businesses are typically waiting for costs to fall to justify investment spending. When net investment begins to recover, profits recover along with it as a result of the increase in spending the net investment creates. Net investment recovers as wages and prices, and therefore costs, fall. So more investment does not weaken the inducement to invest; it enhances the inducement to invest. This is because the investment spending itself generates revenue and helps to produce profits for businesses, and businesses respond to these profit opportunities by investing accordingly. This means that the relationship between the MEC and net investment is the opposite of what Keynes claims: there is a direct relationship, not an inverse relationship, between these two parameters.

A less important argument I must address in connection with the alleged declining MEC is the claim by Keynes that the real impediment to the achievement of full employment is that the interest rate will not fall (or fall enough or fall fast enough). This argument is not fundamental because it is dependent on the declining MEC doctrine, which I have shown to be false. I address it because many economists believe that it is the most important argument Keynes makes as to why full employment cannot be achieved.

Keynes believed that the interest rate must fall to justify greater investment because the interest rate is a cost of doing business and, as the MEC falls due to greater production, the interest rate must fall with it in order for businesses to be able to cover all their costs of production (including costs on account of interest). (pp. 216 and 222) Here is Keynes's statement on the subject:

Now those assets of which the normal supply-price [viz., cost of production] is less than the demand-price [viz., selling price] will be newly produced; and these will be those assets of which the marginal efficiency would be greater . . . than the rate of interest. . . . As the stock of the assets, which begin by having a marginal efficiency at

least equal to the rate of interest, is increased, their marginal efficiency . . . tends to fall. Thus a point will come at which it no longer pays to produce them, *unless the rate of interest falls* pari passu. (p. 228, emphasis in original)

Without falling interest rates, investment, production, and employment will have to be curtailed to raise the MEC sufficiently, according to Keynes.

Keynes claims that there are, in essence, two reasons why interest rates will not fall or fall sufficiently along with the MEC. First, money is not produced like goods and thus its "rate of return" (i.e., the interest rate) does not fall like the MEC of goods, whose supply can be increased merely by increasing the supply of labor involved in producing them. The only exception to this Keynes cites is in the case of a country whose major industry is the production of commodity money when such a monetary system is used. But this, he says, is a minor exception. (pp. 230-231 and 235)

Second, he claims that the demand for money can increase indefinitely and thus prevent the interest rate from falling below some minimum (he uses 2 percent). This occurs because presumably it is not worth it to lend money at low interest rates, so people continue to hold onto their money instead. The reasons it is allegedly not worth it to lend at low interest rates, according to Keynes, are two-fold: (1) the cost of bringing borrowers and lenders together is too high to justify lending at low interest rates and (2) the possibility of interest rates rising when interest rates are low discourages lending. In addition, the indefinite increase in the demand for money reduces the demand for goods and thus can presumably reduce the MEC further relative to the rate of interest. (pp. 201-202, 218-219, and 231-236)

There are a few reasons why this argument is invalid. The major reason is that it assumes the MEC is declining with new investment. This is clearly seen in the quote above from Keynes on the subject. That is why the alleged necessity for the interest rate to fall is not a fundamental argument against full employment, the beliefs of a large number of contemporary economists to the contrary notwithstanding. If the MEC does not decline with new investment, but rises

(especially in the context of recovery from a depression and mass unemployment), the need for the interest rate to fall disappears.

In fact, just as the rate of profit on new investment (i.e., the MEC) rises during a recovery, so too does the interest rate (barring any action by the central bank to keep it low). It will rise to the extent that the demand for loans used for investment purposes by businesses increases (due to the better investment opportunities) and to the extent that a rising rate of profit provides an alternative place for potential lenders to earn a higher rate of return on their money.

While the above is enough to show that the claimed need for a falling rate of interest is invalid, the reasons Keynes gives for why the interest rate will allegedly not fall are also invalid. First, claiming that money is not produced like goods and thus its MEC does not fall in the same manner as the MEC for goods accepts the premise that the declining MEC doctrine is valid. As I have shown, however, this doctrine is a completely wrong approach to understanding how the rate of profit changes with net investment. Hence, it should not be used as the basis for any discussion of what does or does not affect the rate of profit (or interest), whether in connection with money or anything else.

To make sure there is no confusion, I must mention that more money might lead to low interest rates in the short run due to the process of credit expansion on the part of banks. However, this has nothing to do with the declining MEC doctrine Keynes puts forward. This is apparent in the fact that in the long run more money means higher prices and higher interest rates, other things being equal, not lower interest rates.

Second, Keynes's claim that the demand for money can increase indefinitely is invalid as well. I will show below that the increase in the demand for money is self-limiting: once the demand for money has increased sufficiently, it actually *raises* the prospective rate of return on new investment and thus creates a strong incentive to invest. At this point I will address in detail only Keynes's claims as to why it allegedly does not pay to lend money at low interest rates. One point he makes is that people will allegedly refuse to lend at low interest

rates for fear of interest rates rising. However, if people expect interest rates to rise, either their expectations are correct, interest rates will rise, and they will lend at the higher interest rates or their expectations are wrong and they have nothing to fear and can lend at the lower interest rates. Either way, the problem disappears.

The claim that it is not possible to cover the cost of bringing lenders and borrowers together at low interest rates, and thus lenders will not lend at the low rates, is not valid either. Covering the cost of bringing borrowers and lenders together at low interest rates merely requires that the loan amount be sufficiently large or that the loan must be made for a sufficiently long period of time. Hence, a lower interest rate might increase the average maturity of loans and the average sum it pays to lend, but it most certainly will not prevent lending from existing. For a thorough analysis of the fear of lending and covering the cost of bringing borrowers and lenders together, see Reisman (1996, p. 886). On the proper relationship between interest rates and the demand for money, see Brian P. Simpson (2007).

So Keynes's arguments with regard to the alleged need to lower interest rates to achieve full employment are not valid and neither are his claims in connection with why the interest rate will not fall, fall enough, or fall fast enough. But as I have said, these are secondary issues to the major arguments – and errors – Keynes makes. I now return to addressing these arguments.

One major problem with Keynes's analysis of income, saving, and investment is that he focuses on these parameters at the net level and does not consider their significance at the gross level. In fact, based on some of his statements, one can conclude that he did not have a proper understanding of gross income, saving, and investment because he equates gross with net values in some cases.

Keynes's focus on net values for these parameters is readily apparent in his presentation of the definitions of income, saving, and investment. (pp. 52-65) He focuses solely on income after the deduction of various costs. For instance, his largest income parameter subtracts what Keynes calls the user cost (which includes depreciation costs and costs for materials) from revenue. (pp. 52-54) He then

proceeds to derive values for saving and investment using this income parameter (and a smaller income parameter). (pp. 61-63) He does not consider saving and investment out of revenue. Revenue only comes into play in calculating his (highly netted) income parameters. This means he ignores or fails to realize the significance of income, savings, and investment at the gross level. Income, savings, and investment at this level dwarf income, savings, and investment after Keynes's user cost is deducted. Business revenues are far greater than profits (even the profits that Keynes is calculating by subtracting his user cost, which does not include all costs). So Keynes focuses on savings and investment out of a type of profit. However, this type of savings and investment is a highly netted form of savings and investment. It is savings and investment that focuses largely on merely adding to the existing stock of capital goods. Most of the savings and investment out of business revenues occurs to replace the stock of capital goods. This is far greater than the portion of saving and investment that adds to the stock of capital goods.

Keynes, on more than one occasion, even refers to the investment parameter he derives (which is derived from his income that is net of user costs) as a form of "gross" investment. Keynes (1997 [1936], pp. 102 and 1936, p. 542) This shows he does not have a proper understanding of what gross investment is. Using a form of net income to derive "gross" investment leads to a highly netted "gross" investment. Gross investment should not subtract out the costs incurred by businesses (i.e., it should not be derived using the profits of business). It should be derived using the revenues of businesses generated by the spending of other businesses.

In addition, Keynes claims in another work that investment is "measured by the *net addition* to wealth whether in the form of fixed capital, working capital, or liquid capital." Keynes (1971 [1930], p. 155, emphasis added). This also shows that he is ignoring the great bulk of investment spending, which is not merely to add to the assets already in existence but to replace the assets that already exist. That is, he ignores investment spending to maintain the current stock of economically productive assets.

Focusing solely on a form of net income, savings, and investment and equating gross with net values (whether for investment or otherwise) is a problem because it leads one to ignore or fail to see the bulk of income, savings, and investment. If one focuses on income, savings, and investment after subtracting costs (or, at least, a large portion of costs, or any costs for that matter), one will fail to see the portion of income, savings, and investment hidden by the costs deducted. I will grant that it is important to gain a proper understanding of these parameters at the net level; however, it is also important to properly understand them at the gross level. If one analyzes these parameters as Keynes has done, one will have a poor understanding of these parameters at the gross level and will radically understate the amount of income, savings, and investment at that level.

This is not the only place that Keynes misses a large portion of some variable in the economy. He does this when he confuses wage rates, total wage payments, and consumption with total spending in the economy. He commits this error throughout his analysis. It leads to major errors with regard to the composition of spending and how an economy recovers from recessions and depressions.

Keynes also commits the error of equating saving with hoarding. This has been recognized by Ahiakpor (2001) and (1995), Reisman (1996, p. 691), Jeffrey Herbener in Skousen (1992, pp. 74-75), Hazlitt (1959, pp. 121, 146, and 219-220), and Pigou (1936). He does this by severing the link between saving and spending, especially investment spending. Keynes (2003, "Preface to the French Edition"; 1997 [1936], pp. 19-21 and 210-211; and 1971 [1930], pp. 156-157 and 159) He states

it is natural to suppose that the act of an individual, by which he enriches himself without apparently taking anything from anyone else, must also enrich the community . . . so that . . . an act of individual saving inevitably leads to a parallel act of investment Those who think in this way are deceived They are fallaciously supposing that there is a nexus which unites decisions to abstain from present consumption with decisions to provide for future

consumption. (pp. 20-21)

Keynes believes savings to be a leakage from the economy.

Now, while it is possible for an individual to save by hoarding (i.e., holding onto money balances), this is by far the most insignificant way in which individuals save. To understand why, one must understand what saving is. Savings is the use of revenue or income by businesses or individuals for purposes other than spending for consumers' goods to be used up in the present period. Savings is used to finance the purchases of bonds and shares of stock, to open a savings account or certificate of deposit, to purchase a home or a car, to open a business, expand one's business, or maintain the size of one's business, etc. Savings is the source of the majority of spending in the economy: it is the source of spending to purchase expensive consumers' goods, such as homes, and it is the source of all spending by businesses. For example, the entire purchase price of a home is financed by savings. The down payment is made from the savings of the purchaser and the mortgage loan is financed by the savings of the lender. As another example, consider the person who decides to open a pool cleaning business. He takes money he has saved to purchase supplies. He might even borrow money to finance the startup of his business. These borrowed funds represent the savings of other individuals.

One must also understand that while an individual can save by retaining money balances, saving cannot occur in the economic system as a whole in this manner. This is because, other things being equal, when one person increases his money balances, another person must decrease his money balances. For example, if I earn income of \$1,000 and retain this to increase my money balances, this implies that the person who paid me the income has decreased his money balances by \$1,000. For every dollar one person saves in the form of money, another person must have given up one dollar. So while an individual can increase his savings in this way, savings in the economy cannot occur in this manner. Savings in the economy must occur based on an increase in the supply of assets other than cash, specifically capital assets such as factories, homes, automobiles, etc., assets that retain

some value beyond the present period.

When individuals attempt to increase their savings held in the form of money, the dollar amount of savings actually declines. It does so because as people attempt to increase their money balances, this decreases spending in the economy due to the lower velocity of money it creates. This decreases the value of assets in the economy, including the prices of homes, stocks, bonds, business assets, etc. With a constant supply of money, the value of total savings declines. In this sense, attempting to build one's money balances decreases savings in the economy.

What the above helps to illustrate is that when individuals attempt to increase their money balances, they are not trying to increase their savings, but change the composition of their savings. That is, they are trying to increase their savings in the form of money relative to their savings in the form of other assets. In fact, many individuals and businesses will actually sell off assets to raise money, especially during a depression when the motivation is greatest to increase one's money holdings relative to other assets. Here they are clearly trying to increase their savings held in the form of money and decrease their savings held in the form of other assets.

The above analysis is not changed fundamentally when the quantity of money increases over time. In this case, when one person increases his monetary holdings, the monetary holdings of others do not decrease by the same amount. This is because the overall monetary holdings, and thus savings held in the form of money, increase with the quantity of money. The increase in the quantity of money will, of course, have an effect on the total monetary value of savings in the economy as well. However, the increase in the quantity of money does not change the fact that for the economy to increase its real savings, it must increase the supply of capital assets in existence. Additionally, it does not change the fact that increasing one's money holdings is an attempt to change the composition of one's savings. Furthermore, it will not alter the fact that the composition of savings of individuals will change when people seek to increase their money holdings. It just means that the savings held in the form of money and

the monetary value of savings held in the form of other assets will be higher than they would have been had the money supply not increased.

Despite the fact that the overwhelming majority of savings is used to finance purchases of one kind or another, as I said, some saving does take place in the form of retaining money balances. However, this should not be seen as detrimental to the economy. In fact, saving in the form of retaining money balances is beneficial: it is generally engaged in by individuals to restore their liquidity when they have become unduly illiquid. This process typically occurs as a part of the business cycle.

During inflationary expansions, individuals typically become inordinately illiquid, as seen by the increase in the velocity of circulation of money or, correspondingly, the decrease in the demand for money during such expansions. People often engage in far more spending, relative to their money holdings, by taking on more debt. This can occur because central banks make it easier to borrow during inflationary expansions by keeping interest rates low. This enables individuals to more easily purchase homes, cars, and other large consumers' goods, while at the same time making it easier for businesses to build up inventory and expand their operations. In fact, not only is it easier for businesses to borrow to make purchases; it becomes more profitable to make purchases as well because businesses can sell accumulated inventory into a rapidly growing revenue stream due to the central bank's expansionary policy. So businesses have both the means and incentive to reduce money balances, especially relative to their spending, to expand their operations.

Once the inflationary expansion stops or merely slows sufficiently, loans become harder to obtain or refinance due to rising interest rates, and revenue streams either stop rising or do not rise as quickly as expected. Once this occurs, businesses and individuals realize they must build up their money balances to pay off their bills and prepare for the tougher than expected financial times ahead. As a result, the demand for money increases or the velocity decreases, as it typically

does during a recession or depression.

It is important to remember here that the scramble for liquidity is not the cause of the recession or depression. Businesses and individuals are responding to something. They are responding to the change in policy by the central bank. Specifically, they are responding to the change in the central bank's manipulation of the supply of money and credit.

Furthermore, as I previously stated, it is important to note that the restoration of liquidity is beneficial to the economy. It puts the economy on a more sound financial footing because individuals have higher money balances relative to their purchases. This means it is less likely that they will get into financial trouble and become insolvent or go bankrupt.

In addition, the process of restoring liquidity only temporarily reduces the rate of profit; in the long term, it raises the rate of profit. This is true, for among other reasons, because as people attempt to build up their money balances, this decreases spending in the economy (due to the reduction in velocity) and decreases the value of assets in the economy, including the prices of homes and capital goods. As the value of capital goods declines, this increases the potential return to be earned on capital goods with any given amount of spending. Therefore, once people become sufficiently liquid and the demand for money moves down toward more normal levels (as it does in the recovery from a depression), the increase in spending this generates will lead to a higher rate of profit than would otherwise exist, due to the reduced value of capital goods. So the process of restoring liquidity tends to sow the seeds for recovery and, as I stated above in connection with the discussion on the alleged inability of interest rates to fall, is self-limiting. Because of this, the easier it is for people to restore their liquidity, the quicker will the recovery occur. See Reisman (1996, pp. 692-696, 778-784, and 837-838) on saving, spending, liquidity, and the rate of profit.

These last two errors (focusing on net values instead of gross values [as well as equating gross with net values] and equating saving with hoarding) prevent Keynes from seeing much of the spending that

goes on in the economy. This is especially true with regard to businesses, since all spending by businesses is financed with saving and is investment. If one equates saving with hoarding and focuses his analysis solely on net income, saving, and investment or equates gross investment with net investment, it will be much harder to recognize much of the spending by businesses that occurs in the economy. However, all the major errors Keynes commits, including believing falling wage rates lead to decreased spending and a lower rate of profit and more investment leads to a lower rate of profit, lead him to think that a market economy will be in a chronic state of depression.

Conclusion

Keynes's major errors led him to support a theory of depressions that is not valid. There are many other errors that Keynes makes. While I have by no means discussed all of them, I have discussed the major ones which decisively demonstrate that his arguments concerning depressions are invalid.

The errors of Keynes I have discussed in this paper include both errors identified by other economists and errors that I have identified. Errors that other economists have identified include claiming that falling wage rates will not reduce unemployment, context dropping, believing that the MEC declines with net investment, and equating saving with hoarding. The errors of Keynes I have identified include his claim that wages cannot fall rapidly enough to achieve full employment, his claim that interest rates need to fall as the MEC falls, and his confusion with regard to gross versus net income, saving, and investment. I have also much more thoroughly exposed Keynes's confusion between wage rates, total wage payments, consumption, and total spending in the economy. Finally, as surprising as it is to me, the identification that Keynes's claim that falling wage rates will not reduce unemployment is a violation of the law of demand is original to me as well.

Despite their invalidity, his ideas are still popular today. The ideas have changed somewhat. As I stated in the introduction, Keynesian economics gave way to neo-Keynesian economics which gave way to New Keynesian economics. In response to criticisms by

A.C. Pigou, Keynesians changed their claim that a fall in wages could not achieve full employment to the claim that it would take an excessive fall in wages to achieve full employment and that this would be “hopelessly disruptive” to the economy. McKenna (1977, pp. 220-223) Then, the neo-Keynesians, such as Paul Samuelson, abandoned this claim and embraced the claim that prices and wages were merely “sticky,” especially in the downward direction, and that it would take too long for a market economy to come out of a contraction on its own. Now, New Keynesians try to provide explanations as to why wages and prices are sticky. While the original Keynesian claim has been completely abandoned, the political and economic effects of those ideas are very much alive. The recent “stimulus packages” make that abundantly clear. These were passed at least in part in the belief that they will promote consumption. This provides an important reason why we need to understand Keynes’s ideas and expose his errors.

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