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TO WHAT EXTENT WAS KEYNES'S *GENERAL THEORY* REVOLUTIONARY AND TO WHAT EXTENT WAS IT BASED ON PAST ECONOMIC THEORIES?

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In 1935, while he was writing *The General Theory of Employment, Interest and Money*, John Maynard Keynes wrote to George Bernard Shaw, "I believe myself to be writing a book on economic theory which will largely revolutionise—not, I suppose, at once but in the course of the next ten years—the way the world thinks about economic problems."[1] Keynes was not wrong—*The General Theory* did cause a great change in economic thought. It disproved many traditional beliefs about savings, investment, and especially unemployment. The question can still be asked, however, to what extent Keynes's *General Theory* was, in fact, revolutionary and to what extent was it based on the economic theories before it. Some of the ideas presented in *The General Theory* can be found in the writings of Malthus and Hobson, and in the writings of more contemporary economists such as Knut Wicksell, D.H. Robertson, and Richard F. Kahn. Also, the actions that Keynes in *The General Theory* argued

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were necessary to be executed by government had already been started in certain countries several years before *The General Theory* came out. But even though many of Keynes's individual ideas in *The General Theory* were not completely original, Keynes was the first person to get them widely accepted and to use them to influence government policy. In addition, Keynes provided a much more "general" theory than had existed in the past by exposing assumptions of classical economists, and he caused a great shift in emphasis to aggregates, the short run, and the problems of employment. In these ways *The General Theory* was revolutionary.

The General Theory was published in 1936. The basic idea of *The General Theory* is that "the equilibrium level of employment…will depend on the amount of current investment.…But there is no reason in general for expecting it to be *equal* to full employment."[2] Investment is not the only factor that affects the equilibrium level of employment, but it can be regarded as the most important factor because of its strong influence on incomes and because it is the factor which is most likely to change suddenly.[3] Employment is determined by two elements, which investment, in turn, affects—the total income of the community, and the sum of the community's consumption and its investment. Keynes calls the relationship between the number employed and the total income the *Aggregate Supply Function* or $Z=f(N)$ (where Z is the aggregate supply price and N is the number employed)[4] and he calls the relationship between the number employed and the sum of consumption and investment the *Aggregate Demand Function* or $D=f(N)$ (where D is the aggregate demand price and N is the number employed). There is only one value for which the total income equals the sum of the consumption and the investment, and it is at this point that the equilibrium level of employment is reached (this is similar to the way supply and demand determine the equilibrium price of a good). At any other level of employment, it will be in the employer's interest either to hire more workers or to decrease the number of workers until the equilibrium level is reached; otherwise the employer either will be producing more goods than can be sold or will not be fulfilling the demand for goods.[5] Much of the rest of *The General Theory* is devoted to demonstrating the effects of investment on aggregate supply and aggregate demand.

Investment's strong influence over aggregate supply and demand, and, through these, over employment is explained in *The General Theory* by the marginal propensity to consume and the multiplier. Marginal propensity to consume (also called the consumption function) is the idea that "men are disposed, as a rule and on the average, to increase their consumption as their income increases, but not by as much as the increase in their income."[6] The idea of marginal propensity to consume is essential in understanding the multiplier. It is clear that in general an increase in investment will cause an increase in income and employment—by investment in a new factory, for example, new jobs are created. But the idea behind the multiplier, which makes it so significant, is that an increase in investment will increase the income of the community by an amount greater than the new investment. The word "multiplier"[7] refers to the number that the change in investment is multiplied by to obtain the change in income. The multiplier works because money invested to construct new capital does not end in the salaries of the carpenters or architects responsible for the construction. They will use their new income to buy goods from others. The amount that they will spend on consumption is determined by their marginal propensity to consume; if they have a marginal propensity to consume of 2/3 (meaning that out of their increased income they will spend 2/3 and save 1/3), then an extra 2/3 of their salaries is added to the community's total income. Then those who receive the new 2/3 of the original investment will spend 2/3 of that (or 4/9 of the original investment) on more goods. This process will continue indefinitely, greatly increasing the wealth of the community. If the original investment had been one million dollars, and the marginal propensity to consume of everyone in the community was 2/3, the actual increase in income would be $(1+2/3+(2/3)^2+(2/3)^3+\ldots)$ which is equal to $3 million (in this case, the multiplier is 3). This is why Keynes viewed investment as the most important factor in determining income—even a small fluctuation in investment will cause a large change in income.

Keynes also discusses in *The General Theory* the danger of excessive saving (which he had emphasized earlier in his *Treatise on Money).* If an individual saves a greater amount than can be invested by businesses, he or she is failing to return income to the community and the result will be a contraction of the incomes even further. Because of the marginal propensity to consume, everyone else's savings will also contract. The result will not even be a gain in total savings. Because savings and investment are carried out by different groups in our society, it is often possible that individuals will save more than can be invested. Therefore, thriftiness could lead to a decline in total savings.[8]

The discussions in *The General Theory* of the marginal propensity to consume, the multiplier, and savings all point to the fact that investment must be increased to increase income and employment. According to Keynes, investment is determined by two considerations—the expected yield of the investment and the rate of interest on the money borrowed for the investment.[9] Economists before Keynes (and also Keynes in his *Treatise on Money*) believed that excess savings will bring down interest and encourage investment. But Keynes makes the crucial observation that a shortage in investment will cause a decrease in income and, because of marginal propensity to consume, a decrease in savings, which will raise interest rates and further discourage investment.[10] If there is insufficient investment, people will not be able to save as much as they had in the past; in fact, they will begin to use up their past savings. Because of this, even before *The General Theory,* Keynes advocated the reduction of interest rates by the government to both reduce savings and raise investment. But for Keynes, in *The General Theory,* even that reduction of interest rates would not be enough to reduce savings or stimulate investment sufficiently. According to Keynes, if certain conditions exist, especially in a depression, a reduction in interest will have little effect on savings. If there was a rise in liquidity preference (people's desire for cash), such as might be brought about by falling prices, savings would not be reduced no matter how low the interest was.[11] And decreased interest rates would not have a great effect on investment because of the second consideration that affects investment—expectation. The expected yield of the investment is extremely unpredictable. Keynes said of the factors that influence output and employment, "of these several factors it is those which determine the rate of investment which are most unreliable, since it is they which are influenced by our views of the future about which we know so little."[12] Keynes's conclusions that neither interest rates nor expected proceeds could sufficiently encourage investment led him to his final conclusion that unemployment could exist at equilibrium—unemployment would not fix itself, and government intervention was necessary to increase employment.

In *The General Theory*, Keynes contrasts his main arguments with the traditionally held "classical" beliefs. *The General Theory* is filled with passages in which Keynes shows the inadequacies of what he calls the "postulates of the classical theory."[13] According to Keynes, "the classical economists" is a name traditionally given to Ricardo, James Mill, and economists before them. Keynes, however, says that he has also come to call more recent economists who "adopted and perfected the theory of Ricardian economics"[14] classical. These economists include John Stuart Mill, and closer to Keynes's time, Alfred Marshall and Arthur Pigou. Unlike some heretical economists of the past, Keynes had been brought up on classical ideas and had, in fact, remained consistent with them in most of his writings before *The General Theory*. Keynes's father, John Neville Keynes, was a noted economist at Cambridge University.[15] And when Keynes attended King's College at Cambridge, he was a student of Marshall and Pigou, whom Keynes included in his definition of classical economists. Thus Keynes was doubtless taught classical theory from his childhood through the time that he was a student.

Keynes begins *The General Theory* with the explanation that the reason for the word "general" in the title is that his argument differs from the classical theories which apply only to a special case of equilibrium.[16] Keynes's attack on classical theories is mainly centered on Say's Law of Markets. Say's Law derives its name from the French economist Jean Baptiste Say who was a contemporary of Ricardo, but the law was subsequently restated and elaborated upon by Ricardo, J.S. Mill and other classical economists.[17] The simplest statement of Say's Law is "supply creates its own demand."[18] Because every seller is also a buyer, the total of people's wages from producing goods and services will necessarily be spent on the consumption of those products. Even if some individuals save instead of consuming, their saving will be returned to the community in the form of investment. Keynes restates Say's Law in terms of his own aggregate supply and aggregate demand functions. Say's Law is equivalent to saying that for any amount of employment, the aggregate supply (or income) will be equal to the aggregate demand (or the sum of consumption and investment).[19] This statement of Say's Law implies that full employment is always possible. If aggregate supply equals aggregate demand for any amount of employment, there is no pressure on employers to use a certain equilibrium number; instead, competition between employers will force them to hire as many workers as is possible.[20] This leads to many of the prevalent beliefs about employment of Keynes's time. Because full employment is always possible, there should be no such thing as involuntary unemployment. According to classical thought, the only reasons full employment might not exist would be either "frictional" unemployment, which refers to imperfections in production and employment, such as the delay of workers changing jobs, or voluntary unemployment, in which case workers are refusing to accept wages offered to them.[21] The idea that employment can be increased by a reduction in wages also follows from the classical belief in the impossibility of underemployment equilibrium, because wage reductions will allow employers to hire more workers.[22] Keynes's *General Theory* is directed towards disproving these beliefs. According to *The General Theory,* Say's Law is only a special case of aggregate supply and aggregate demand—in general, aggregate demand does not always equal aggregate supply. Keynes says, "To assume that it actually does so is to assume our difficulties away."[23]

Despite the fact that Keynes portrays *The General Theory* as revolutionary, several of his ideas can be found in the writings of other economists. For this reason, some critics believe *The General Theory* is not revolutionary. One of these ideas is Keynes's criticism of excessive savings. Keynes himself acknowledges towards the end of *The General Theory* (in his "Notes on Mercantilism, the Usury Laws, Stamped Money and Theories of Under-consumption") and in some of his other writings that economists such as Malthus and Hobson had anticipated his discussion of the harmful effects of excessive savings. The belief traditionally held by classical economists had been that even though savings represented money not immediately returned to the community in the form of consumption, savings would always be invested in business and therefore still be eventually returned to the community; there will never be a situation in which savings will not be returned to the community, causing a shortage of demand. This belief is, in fact, equivalent to Say's Law. Malthus was the first great economist to propose that this was not so. In the Preface to his *Principles of Political Economy*, Malthus says, "I distinctly maintain that an attempt to accumulate very rapidly, which necessarily implies a considerable diminution of unproductive consumption, by greatly impairing the usual motives of production must prematurely check the progress of wealth."[24] Keynes's attack on savings and several of his other ideas were anticipated even more closely by J.A. Hobson. In 1889, Hobson collaborated with A.F. Mummery on *The Physiology of Industry*. In this book Hobson and Mummery tried to show "that an undue exercise of the habit of savings is possible, and that 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."[25] Hobson and Mummery not only present the idea found in *The General Theory* that savings can be harmful, but they also, even though they do not use many of the methods used by Keynes, show the possibility of involuntary unemployment.

Several more of Keynes's individual ideas owe much to his contemporaries. In addition to the contributions by Malthus and

Hobson of the idea that savings can be harmful, Keynes's analysis of the problems with savings was strongly influenced by Professor D.H. Robertson and his *The Banking Policy and the Price Level,* published in 1926. E.A.G. Robinson (a student and later colleague of Keynes) recalls that for himself, Keynes, and the other Cambridge economists, Robertson's book was the first to "bring home" the ideas that there was a distinction between savings and investment and that factors like changes in people's desire to hold money or in the speed with which money is circulated could exert an influence on savings.[26] Keynes knew the book well and does acknowledge Robertson's contribution to his thinking.[27] Apparently Keynes discussed Robertson's book with him so much while he was writing that Robertson says in the introduction that there are places where it is uncertain how much the ideas are Robertson's and how much they are Keynes's.[28] Another idea that may have been derived from one of Keynes's acquaintances was the multiplier. For this idea, which is so essential to the analysis of investment in *The General Theory,* Keynes is much indebted to the work of his student, Richard F. Kahn[29] (such that some even call it the Kahn-Keynes multiplier). Dudley Dillard,[30] as well as Paul A. Samuelson,[31] however, say that the basic insight behind the multiplier was Keynes's own and that it was only refined by Kahn. Keynes collaborated with H.D. Henderson in 1929 on the pamphlet *Can Lloyd George Do it? An Examination of the Liberal Pledge,* in which Keynes presented the observation that investment in public works will increase the total income by more than the original investment—this is the basis of the theory of the multiplier. It was not until 1931 that Kahn presented a "refined technical formulation."[32]

Several ideas in *The General Theory* were also anticipated by the work of the Swedish economist Knut Wicksell and several other Swedish economists who elaborated upon his ideas, including Gunnar Myrdal, Erik Lindahl, and Bertil Ohlin. These economists played a large role in guiding Sweden to use government intervention to relieve depression. Wicksell lived from 1851 to 1926, and, largely because his writings were not translated into

English until many years after his death, he was not well-known outside of Sweden in his own lifetime. Wicksell tried to examine the causes of the general rise of prices in an economy at certain times or the general fall of prices at other times. Based on the fact that the changes in prices of individual products are determined by changes in supply and demand, Wicksell reasoned that this explanation should be true for the general changes in prices of all commodities; depending on whether aggregate demand was greater than or less than aggregate supply, prices in general would rise or fall.[33] This conclusion, like Keynes's *General Theory,* directly contradicts Say's Law by stating that supply does not always have to equal demand. Wicksell tries to explain these changes in aggregate supply and demand using investment and savings. According to Wicksell, when savings exceeds investment, there is less demand and therefore prices will fall, and when there is less savings than investment the opposite is true.[34]

This idea, that savings does not always equal investment, is of greater significance in *The General Theory* (as well as in Malthus and Hobson), and the conclusion that savings and investment determine aggregate supply and demand is one of Keynes's most basic demonstrations. In the application of his theory, Wicksell encouraged the deliberate lowering of interest rates to make investment equal to savings. Here Keynes differs from Wicksell. Keynes was not opposed to lowering interest—in fact he strongly advocated it before *The General Theory*—but in *The General Theory* he uses the liquidity preference function to show that lowering interest rates would be far from sufficient to accomplish the task of making savings equal to investment.[35]

Swedish economists after Wicksell also added ideas similar to *The General Theory*. Lindahl showed that Wicksell's conclusions can be applied to the analysis of employment in addition to prices—this is, indeed, how Keynes uses savings and investment in *The General Theory*. Lindahl also pointed out that Wicksell's approach depended on the anticipations of entrepreneurs.[36] This is another subject essential to Keynes that was anticipated by the Swedish economists—the idea of expectation. This subject had received little attention in the past, but was one of the main elements in Keynes's discussion of investment in *The General Theory*. The onset of depression in Sweden in the 1930s prompted the followers of Wicksell to call for government action to improve conditions. These actions turned out also to be similar to ideas of Keynes. The policies instituted by the Swedish government as a result of Wicksell's followers' theories included a well-developed social security system and the deliberate unbalancing of the budget in times of depression to increase aggregate demand.[37] The regulation of demand is the most important role suggested by *The General Theory* for the government during depression. Galbraith goes so far as to say that what is often referred to as the Keynesian Revolution would more accurately be called the "Swedish Revolution."[38] Even though Keynes mentioned Wicksell in the *Treatise on Money*, many economists (including Seymour Harris[39] and E.A.G. Robinson[40]) said that otherwise Keynes knew little of the work of the Swedish economists.

Another argument to show that *The General Theory* may be less revolutionary than Keynes thought is the criticism of his attack on Say's Law. Keynes describes Say's Law as being thought the undisputed absolute truth, but some economists argue that it was not believed in the sense that Keynes implied; Keynes's refutation of Say's Law as inviolable truth was not entirely new. According to Henry Hazlitt, a severe critic of Keynes, economists after Say did not necessarily regard Say's Law as a rule that could never be false; instead they viewed it as ultimately true only under what we now call "conditions of equilibrium."[41] It never was taken to mean that excessive savings or depressions were impossible. It only applied to supply and demand in a very general sense—that overproduction of all goods at once is not possible. Hazlitt says, "Keynes refuted Say's Law only in a sense in which no serious economist ever maintained it."[42] Even Seymour Harris, who usually supports Keynes's discontinuity with past economists, agrees that "Keynes often exaggerated to make a point; and he undoubtedly gave the impression that Say's Law was more widely held than it actually was."[43] It is difficult to judge how widely a certain belief was held seventy-five years ago, but it appears that even though there is truth in Hazlitt's argument, Say's Law was held to a great extent at Keynes's time and his refutation of it was revolutionary. John Kenneth Galbraith says:

> Say's Law…captured the economic mind as Lenin captured the revolutionaries of Russia. Until the middle of the 1930s—I do not exaggerate—no one could get a Ph.D. at Harvard if he didn't believe in Say's Law, assuming that he were asked about so obvious a point. Later, he might not get a Ph.D. at Harvard if he did believe in Say's Law, for it was Say's Law that Keynes destroyed.[44]

Probably the most accurate interpretation of the extent to which Keynes's contemporaries believed Say's Law is closer to Galbraith's view. Keynes himself acknowledged that, unlike J.S. Mill or Ricardo, Keynes's contemporaries no longer came out and simply stated Say's Law,[45] but much of it they did not question—it was taken almost as common sense. In discussing *The General Theory* in 1937, Keynes says, "I doubt if many modern economists really accept Say's Law that supply creates its own demand. But they have not been aware that they were tacitly assuming it."[46] Even if Say's Law was not completely held as true, Keynes's contemporaries still fully believed the ideas that were deduced from it—that wage reductions could increase employment and that involuntary unemployment was impossible. Thus, by disproving a notion uncontested in people's minds for 100 years, Keynes was doing something revolutionary.

In his refutation of Say's Law, Keynes was able to disprove all of the assumptions which he believed economists of the past 100 years had been making based on it. By doing this, Keynes created, in the views of many, a truly "general" theory. In reviewing *The General Theory*, Keynes says that showing the fallacy of many classical assumptions was one of his main goals: "our criticism of the accepted classical theory of economics has consisted…in pointing out that its tacit assumptions are seldom or never satisfied."[47] Thus, in fact, much of *The General Theory* involves searching through all the classical theories and determining which theories are not dependent on Say's Law and which theories falsely assume it, and therefore are not valid under most conditions.[48] This searching for assumptions was something that Keynes did not only in regard to Say's Law. According to E.A.G. Robinson, Keynes always made himself and his students find the assumptions that were at the base of their arguments. Robinson views *The General Theory* as "a great step forward in economic thought"[49] because, by finding and disposing of the assumptions made in the past, Keynes was able to create a truly "general" theory, which is always true instead of being true only under certain conditions. Paul A. Samuelson[50] and A.C. Pigou[51] (who was originally a great critic of *The General Theory*) agree that the greatest contribution of *The General Theory* was that by eliminating many assumptions it brought together all the factors in the economy into one coherent, "general" theory. It should be mentioned, however, that even though Keynes's refutation of assumptions was revolutionary, several economists point out that Keynes made assumptions of his own in *The General Theory*.

Even though some of the ideas presented in *The General Theory* were not entirely original with Keynes, Keynes's ability to get his ideas widely accepted was still revolutionary. It is only after *The General Theory* that the problems of savings were recognized by economists all over the world. When Malthus presented his arguments about savings, they were not accepted at all. Ricardo dismissed them as ridiculous and J.S. Mill attempted to demonstrate that they were untrue.[52] The harmful effects of savings were not even brought up again until Hobson. And when presented by Hobson these ideas were enough to make him an outcast from the world of economists of his time. He could not get university jobs because of his beliefs. Hobson quotes an economics professor who thought *The Physiology of Industry* "equivalent in rationality to an attempt to prove the flatness of the earth."[53] After Keynes's demonstration of the vices of excessive saving in *The General Theory*, however, the world did not once again reject the idea; instead "Keynes cheerfully flouted his high authority, in academic circles, in politics, in religion, and in business."[54] Clearly Keynes's ideas were not completely new, but he was the first economist to get them accepted. In fact, it is not really necessary in general for a writing to be entirely original to be revolutionary in its effects.

Adam Smith's *Wealth of Nations* was certainly a revolutionary book. But according to Seymour Harris, "Its timeliness of appearance and charm of style, much more than originality of ideas and logical consistency accounted for the great success of this book."[55] According to E.A.G. Robinson, Keynes's ability to convince others of his ideas was essential to the revolutionary impact of *The General Theory*. "I can with difficulty be made to believe that some of the lesser men of the present generation of economists could have worked out in their completeness the essentials of *The General Theory*. Nothing will persuade me that they have possessed the qualities which enabled Keynes to convince the world."[56] Galbraith says that the acceptance of *The General Theory* "owed much to Keynes's assurance in economic argument and analysis, the confident originality of his expression and mood."[57] Had *The General Theory* not possessed these qualities, it could very well have had no attention paid to it and "The Keynesian Revolution" would not have occurred.

External circumstances also led to wide acceptance of *The General Theory*, and hence to its revolutionary influence. One of these was The Great Depression itself. Paul A. Samuelson said jokingly that Keynes did much for The Great Depression and The Great Depression did much for Keynes.[58] But this is certainly true; the fact that classical economic doctrines had failed to deal with the depression contributed greatly to the acceptance of *The General Theory*.[59] An additional factor that contributed to the acceptance of *The General Theory* was that many of Keynes's students or colleagues filled in gaps in the theory and helped fight for its acceptance. Through his Political Economy Club at Cambridge, Keynes exerted a huge influence.[60] And it is likely that *The General Theory* would not have been as widely accepted if those who Keynes influenced had not analyzed it, eliminated errors, and added to it.

Another indication that *The General Theory* was revolutionary is that Keynes's conclusions suggested new methods of raising employment, very different from those of most economists, which could be applied to government policy. During The Great Depression, when *The General Theory* was written, the explanations of many of Keynes's contemporaries—that prolonged unemployment should not be possible and that employment could be increased by wage reductions—did not help relieve depression at all. Keynes was compelled to write *The General Theory* because the classical explanations of a depression, which had already begun in England in the 1920s, differed increasingly from the policies Keynes thought necessary to relieve depression.[61] In the final chapter of *The General Theory*, Keynes emphasizes the actions government must take to remedy unemployment. According to Keynes, the government had to intervene in order to make sure that demand is adequate, since the tendency in a depression is towards decreased demand, which is reflected in decreased investment. Keynes says,

> The State will have to exercise a guiding influence on the propensity to consume partly through its scheme of taxation, partly by fixing the rate of interest, and partly, perhaps, in other ways. Furthermore, it seems unlikely that the influence of banking policy on the rate of interest will be sufficient by itself to determine an optimum rate of investment. I conceive, therefore, that a somewhat comprehensive socialisation of investment will prove the only means of securing an approximation to full employment.[62]

Lekachman describes this as a "startling message." Keynes advocates, as the primary means of increasing employment, massive government investment. To most economists in 1936 this certainly must have been a revolutionary idea (even though the Swedish economists had moved in a similar direction). Before *The General Theory*, the principle of *laissez-faire* was still at the base of economic thought. Keynes had called it "the orthodoxy of the day" and "the hypothesis from which [economists] set out."[63] The demonstration that government intervention is necessary in a depression marks "the end of *laissez-faire*" (the title of a 1926 article by Keynes in which he first criticizes policies of *laissez-faire*). After *The General Theory*, economists could no longer argue that the economy would function best if left alone.

Galbraith argues that Keynes's conclusion about the role of government was not revolutionary because it was already being put into action by the United States government before *The General Theory* was written.[64] This observation is not untrue—throughout the 1930s the government deliberately ran a deficit and starting in 1933, with the New Deal, began public-works projects, such that by 1936, government income was only 59 percent of spending.[65] For this reason, Galbraith says, many viewed *The General Theory* not so much as presenting a radical new solution, but as justifying actions already shown to be necessary.[66] But, in fact, even if the actions of the New Deal were politically necessary, economists still believed them to be theoretically unsound. Keynes's proof that the government action was theoretically correct was more revolutionary than Galbraith describes it to be. Economists were convinced that the New Deal and similar policies that could be observed in other countries were not correct. According to George Soule, not until the publication of *The General Theory* were theorists able to accept the solutions that seemed politically necessary.[67]

Perhaps the way that *The General Theory* is most revolutionary is that it emphasizes problems and ideas that had been little considered before, and in doing this, it caused a great change in the problems analyzed by economists. One such new emphasis is on aggregates instead of individual prices or individual supply and demand functions.[68] *The General Theory* relates to employment and output in the entire economic system, instead of individual businesses. The aggregate supply and demand functions are ideas that had not been given much attention in the past. Instead economists focused on the effects of supply and demand on individual goods or resources. Other aggregates original with Keynes are income, employment, investment, and consumption. According to Seymour Harris, this use of aggregates constitutes a change in emphasis to matters of macroeconomics instead of microeconomics.[69] Gottfried Harbeler as well as Harris say that Keynes was not the first person to study aggregative systems—R. Frisch, Jan Tinbergen,[70] and even Karl Marx[71] had already used the concept of aggregates. These studies of aggregates, however, were not nearly as widely accepted as Keynes's,[72] and for this reason Harris says that "Keynes was responsible, more than anyone else, for the revolutionary shift of emphasis to macro-economics."[73]

A second great shift in emphasis was from problems of the long run to short run economics. Economics had been traditionally concerned with the study of the long run. Adam Smith's Law of Accumulation and Law of Population in *The Wealth of Nations* described the direction in which the economy would move in the future. David Ricardo predicted how wealth would be distributed in the extreme long run. Keynes, however, concentrated on problems of the short run, which he considered to be more important[74] (the short run does not necessarily have to be a few years—Keynes himself said that the short run could cover ninety years).[75] This shift in emphasis is indeed consistent with Keynes's famous quotation "In the long run we are all dead."[76] Keynes's analysis of the short run allowed economists to understand better the problems of actual life[77]—it filled in substantial holes left by the classical study of the long run. Among the ideas that had been previously neglected, which Keynes was able to study through his analysis of the short run, are expectations, which are essential to Keynes's discussion of investment in *The General Theory*, and the factors involved in determining employment, which is the most influential shift in emphasis in *The General Theory*.

Before Keynes, the problem of unemployment had been for the most part neglected. Since Ricardo, the problems that economists had felt were suitable to deal with had instead been allocation of resources and productivity. Ricardo wrote to Malthus, "Political Economy…should be called an enquiry into the laws which determine the division of the produce of industry amongst the classes who concur in its formation."[78] If unemployment was ever examined at all, it was not studied as a variable, but instead was viewed as a fixed factor. Because of the belief that underemployment[79] equilibrium was an impossibility, economists had avoided the problem of unemployment. The result was that by the 1930s, when economists were forced by The Great Depression to become interested in employment, their explanations were unrealistic and inaccurate.[80] Keynes was the first to make a successful study of the factors which cause employment and, of course, the first to show that these factors could set the equilibrium rate of employment below full employment (the central demonstration of *The General*

Theory). In doing this, Keynes shifted the emphasis in economic problems from those described by Ricardo to the problems of employment. Even if economists do not agree with Keynes's analysis, they have still been forced to examine unemployment much more than in the past.[81] Keynes's influence is so widespread that employment has become a concern in many fields of economic analysis that until relatively recently had not been related by economists to unemployment at all, such as, for example, international trade. It is only since Keynes that the consequences of international trade on a nation's employment, which is such an important consideration in the United States today, have been analyzed.[82] Seymour Harris believes that Keynes's shift in emphasis to problems of employment is his greatest contribution,[83] and it is, no doubt, one of his most revolutionary.

In my judgment, Keynes's *The General Theory* was truly revolutionary. It is true that some individual ideas in *The General Theory* had appeared in the writings of economists before Keynes, including those of Malthus, Hobson, Robertson, Kahn, and Wicksell. It also must be acknowledged that the New Deal had already put into practice Keynes's determination that the government must invest in public-works projects during a depression. But the arguments which show that *The General Theory* is revolutionary are still stronger. Keynes was the first person, by refuting Say's Law, to expose the assumptions economists had been making for the past hundred years; in doing this, Keynes created a much more "general" theory than had appeared in the past. Even if government policies had anticipated some of his ideas, Keynes was the first person to show that these policies were theoretically sound. And Keynes's conclusion that policies of government investment were necessary in a depression was radically different from the policies advocated by most economists since Adam Smith—it truly marked an end to the advocacy of *laissez-faire*.

Unlike many economists whose individual ideas appeared in *The General Theory*, Keynes was able to bring about a revolution by getting these ideas accepted by economists everywhere. Finally, *The General Theory* presents a shift in emphasis from microeconomics to what can be referred to as macroeconomics (which deals with aggregates and effects on the total community), from a concentration on the long run to the short run, and most significantly, from an emphasis on production and allocation of resources to the problem of employment. In Keynes's letter to George Bernard Shaw (quoted above), Keynes did not imply that all of the ideas in *The General Theory* were completely new. E.A.G. Robinson recalls that when Keynes was working out a theory, he was rarely concerned with where each idea originally came from; he would integrate the arguments of others into his own thought.[84] What Keynes did write to Shaw was that *The General Theory* would revolutionize economic thinking. Comparing the writings of economists before 1936 and after 1936, the truth of this statement cannot be denied.

[1] R.F. Harrod, The Life of John Maynard Keynes (London: Macmillan & Co. Ltd., 1951) p. 462

[2] John Maynard Keynes, The General Theory of Employment Interest and Money (New York: Harcourt, Brace and Company, 1936) pp. 27-28

[3] Seymour E. Harris, ed., The New Economics (New York: Alfred A. Knopf, 1948) p. 191

[4] Keynes, p. 25

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Galbraith, John Kenneth and Nicole Salinger, Almost Everyone's Guide to Economics Boston: Houghton Mifflin Company, 1978

Galbraith, John Kenneth, Economics in Perspective Boston: Houghton Mifflin Company, 1987

This source contains an excellent chapter on Keynes's life and theories. I found the discussion of the New Deal and the writings of Wicksell in relation to The General Theory particularly useful.

Hansen, Alvin H., A Guide to Keynes New York: McGraw-Hill Book Company, Inc., 1953

Harris, Seymour E., John Maynard Keynes New York: Charles Scribner's Sons, 1955

This was one of my most useful books mostly because of its clear summary of *The General Theory* and several chapters devoted to the impact of *The General Theory* on the economic world and the differences between *The General Theory* and classical theories. Harris supports the belief that *The General Theory* was revolutionary more consistently than the work of almost any other author.

Harris, Seymour E., ed., The New Economics New York: Alfred A. Knopf, 1948

Harrod, R.F. The Life of John Maynard Keynes London: Macmillan & Co. Ltd., 1951

Hazlitt, Henry, ed., The Critics of Keynesian Economics Princeton, NJ: D. Van Nostrand Company, Inc., 1960

Keynes, John Maynard, Essays in Persuasion London: The Macmillan Press Ltd., 1972

Keynes, John Maynard, The General Theory of Employment Interest and Money New York: Harcourt Brace and Company, 1936

This is, of course, the book on which my paper is based. Even though it has been described as a difficult book to understand, I was able to follow some sections of it. It was especially useful for finding quotations that summarize Keynes's main points and for seeing Keynes's own comparison of his ideas with past theories.

Keynes, Milo, ed., Essays on John Maynard Keynes London: Cambridge University Press, 1975

Lekachman, Robert, The Age of Keynes New York: Random House, 1966

Lekachman, Robert, ed., Keynes and the Classics Boston: D.C. Heath and Company, 1964

This book was extremely useful because it provides articles by several economists either arguing that *The General Theory* was revolutionary or that it was not. Of these, the articles by Keynes

and the article by Ohlin about the Swedish economists are the most interesting. The introduction by Lekachman was also helpful.

Lekachman, Robert, ed., Keynes's General Theory: Reports of Three Decades New York: St. Martin's Press, 1964
This book also provided articles by several economists on a wide range of topics related to *The General Theory*. The second article by E.A.G. Robinson is fascinating in its discussion of how much Keynes was conscious of his use of the theories of other economists. The first article by Paul A. Samuelson is informative as well as humorous.

Pigou, A.C., Keynes's 'General Theory' London: Macmillan & Co., Ltd. 1959

Robertson, D.H., Banking Policy and the Price Level New York: Augustine M. Kelley, 1949

Samuelson, Paul A., Economics 11th ed. New York: McGraw-Hill Book Company, 1980

Soule, George, Ideas of the Great Economists New York: The Viking Press, 1952

Wicksell, Knut, Selected Papers on Economic Theory Cambridge, Massachusetts: Harvard University Press, 1958

When I picked up the first issue of *The Concord Review*, five years ago, I knew I was on to something. Here were ten or so terrific essays on various historical subjects—and they were written by students in high school or even junior high. The idea of giving students a chance to publish their outstanding essays in a magazine directed to their peers is a simple one, but it is also educationally sound and rich. The proof of this, if I needed any, is in how often a new idea or new finding in education makes me think of the *Review*.

A couple of years ago, people started talking about replacing standardized, multiple choice exams with performance-based assessments that would give kids a chance to show how they can think about and use what they have learned. Of course the essays published in *The Concord Review* are ready-made examples of what the reformers were talking about.

You find out very little about students' grasp of history when all they have to do is pick out the name of the author of the Bill of Rights or the subject of the Dred Scott decision from a list. But when students can produce literate, intelligent and well-researched essays about the Triangle Shirtwaist Company fire or dissent in the USSR from 1953 to *glasnost*, you get a good idea of what they know and how well they can use it. And with *The Concord Review*, there is the bonus that the "performance" is not simply for a teacher or for classmates, but for a national and even international audience of readers.

Nowadays, there is a great deal of discussion about developing world-class education standards for our youngsters. People often ask how we can establish what to expect of students in mathematics or science or history. One answer is to look at curricula and examinations from other countries where students generally achieve at a much higher level than youngsters here. But it has frequently occurred to me that people interested in developing history standards should also read through the first six volumes of *The Concord Review*. Besides being an enjoyable task, it would give them a concrete idea of top-level student performance in American public and private schools. And assuming that world-class standards are developed and win general acceptance, the *Review* will be a valuable supplement to the formal standards. Its flesh-and-blood examples of excellent student achievement will give teachers and other students convincing evidence of what youngsters can aspire to—and achieve.

It's impressive that ideas implicit in *The Concord Review* are also basic to school reform, but it's not surprising. The *Review* represents sound and old-fashioned insights about learning and using what you learn and about excellence that we are wise to try to get back to. But for all that, the thing I enjoy and value most about *The Concord Review* is the conviction, precision, and even elegance, of the students' writing. These kids care about what they've learned, and they're having fun telling their audience about it. Reading their essays is a real pleasure!

Albert Shanker, President
American Federation of Teachers