KEYNES – REVOLUTION AND COUNTER-REVOLUTION

BRENDAN SHEEHAN
LEEDS METROPOLITAN UNIVERSITY
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"…Keynes…[led] economists, and the world, into the light – for The General Theory is nothing less than an epic journey out of intellectual darkness. That, as much as it's continuing relevance to economic policy, is what makes it a book for all the ages. Read it, and marvel."
[Krugman, 2007, pxxxviii]

"To understand my state of mind, however, you have to know that I believe myself to be writing a book on economic theory which will largely revolutionise…the way the world thinks about economic problems."
[Keynes, 1973e, p 492]

a) Prelude

John Maynard Keynes was the greatest economist of the twentieth century. Keynes' best known book, the pinnacle of his intellectual achievements, was the *General Theory of Employment Interest and Money*, first published in 1936. The theoretical framework contained in the *General Theory* offered economists a distinctively different way to analyse economic problems. In a profession renowned for its innate conservatism, one still very much founded on principles enunciated in the eighteenth century, Keynes' theory was seen as a revolutionary departure from the past. The same might be said of Keynes'

policy recommendations which some of his contemporaries viewed as dangerously radical.

This paper has three purposes. The primary purpose is to demonstrate how Keynes departed from orthodox economic theory, and its associated conservative or bourgeois policy agenda, which dominated economic thought prior to the publication of the *General Theory*. The paper therefore begins by outlining the orthodox approach to theory and policy, giving particular attention to the special assumptions on which orthodox macro-economic analysis rested. Section c of the paper introduces Keynes' new general theory of employment, interest and money. It carefully builds up this revolutionary new approach step by step, highlighting where Keynes departs from the orthodox approach. It also outlines the radical policy recommendations made by Keynes which his new analysis justified.

The second purpose of the paper is to explain the counter-revolutionary reaction to Keynes' new ideas. Beginning in 1937 orthodox economists, fearful of the threatening character of Keynes' new ideas, sought to strangle them at birth. Section d shows that this effort was largely successful; the result was mainstream Keynesianism, which was a "triumph of orthodoxy".

The final purpose of the paper is to assess Keynes' credentials as a theoretical revolutionary and policy radical, and this topic is addressed in section e.

b) Economic Orthodoxy Pre-The General Theory

Prior to the *General Theory* mainstream economic orthodoxy looked at the economic dimension of the human condition from a peculiar perspective.[1] This was best summarised by Lionel Robbins in his seminal work, first published in 1932 (Robbins, 1935). Robbins claimed that economics should seek the status of a science, much like physics.[2] Every economic issue and concern, Robbins claimed, could be reduced to one central question – the economic problem of how to balance ends with scarce means. Hence, the ends which people sought to achieve always outstripped the means available to achieve those ends. Put another way, the demand for products always exceeded the supply. Consequently, relative to demand, resources were always scarce. Robbins claimed that this concept of "relative scarcity" applied universally - to all peoples, rich or poor, in all societies, at every point in time.

Robbins argued that markets solved the economic problem. When products had a zero price demand always exceeded supply. Markets generated prices, which forced people to economise and realise the opportunity costs of their actions. Prices caused demand to contract until it equalled the available supply of products. This approach to economics was essentially micro-economic in character and remains the cornerstone of modern economic teaching. How then did orthodox economists deal with macro-economics prior to the *General Theory*? Essentially they took the methods of micro-economics and applied them to macro-economics, along with a number of "special" assumptions to make the transition (Keynes, 2007; Sheehan, 2009).

The key assumption related to Says law. Economic orthodoxy viewed saving as the key moving force of the economic system. Since the time of Adam Smith, orthodox economists had claimed individual and community parsimony was a means to individual and national wealth. Individuals and nations that were prodigal, and spent rather than saved, set themselves on the road to ruin (Smith, 1976). Ideologically this was attractive to the educated elite as it placed affluent households that saved – the wealth-holding rentier class - in the central role of facilitating wealth creation. But what of the reverse of saving – consumption and investment? How were they to be analysed? Moreover, how was the orthodox approach confident that the levels of aggregate spending on consumption and investment would always be sufficient to maintain full employment? To solve this perplexing problem orthodox economics relied on *Say's law*.

> "From the time of Say and Ricardo… economists have taught that supply creates its own demand; - meaning by this in some significant, but not clearly defined, sense that the whole of the costs of production must necessarily be spent in the aggregate, directly or indirectly, on purchasing the product...
> As a corollary of the same doctrine, it has been supposed that any individual act of abstaining from consumption [i.e. saving] necessarily leads to, and amounts to the same thing as, causing the labour and commodities thus released from supplying consumption to be invested in the production of capital wealth."
> [Keynes, 2007, pp 18-19; abridged quote]

Therefore, orthodox thinking supposed that a person added to total demand as much by saving as he/she did by purchasing consumer products, incredible as that may seem to the layperson. It was *assumed* that what was saved was available to fund investment in new capital equipment. In terms of causation, saving was cause, and investment effect.

With such a "law" the total demand for products could never be deficient, unless there were short-term errors in entrepreneurial expectations of spending. If the rate of saving increased, investment spending expanded by an amount just sufficient to counteract the decline in consumption spending. If the saving rate declined, the fall in investment spending would just match the increase in consumption expenditure. With Say's law supply created its own demand, and changes in aggregate supply would always be matched by equivalent responses in aggregate demand. This meant that a deficiency of effective demand could not logically occur; and if experience proved differently, then experience must be wrong.

To explain how savings were always equal to investment, orthodox economists after Ricardo and Say developed the idea of a *loanable funds market*. This conceptualised a market where aggregate saving by wealth-holders was positively related to the rate of interest, and aggregate investment by entrepreneurs (Keynes' shorthand for private sector corporations) was negatively related to the rate of interest. Market forces ensured that the equilibrium interest rate matched saving with investment intentions, and the result was an equilibrium volume of "loanable funds".

One further "market" was needed to complete the orthodox picture. For if total spending in an economy was always naturally brought into equality with

aggregate supply of products, how was the aggregate volume of employment to be derived? To address this question the orthodox school summoned up the possibility of an *aggregated labour market*. On this market the demand for labour as a whole was negatively related to wages, and the aggregate supply of labour was positively related to wages.[3] Market forces ensured that the equilibrium wage rate matched the aggregate demand for labour with the aggregate supply; the result was an equilibrium volume of employment. Orthodox economists categorised any unemployment present at this equilibrium volume of employment as "voluntary" (later Friedman referred to it as "natural") due to the conscious choices of workers, their refusal to adapt, or their sheer obstinacy. Unemployment was therefore a self-inflicted curse which workers themselves could remedy by accepting lower wages.

This orthodox approach to aggregate employment was, however, founded on a special assumption. For when deriving the aggregate demand for labour orthodox economists assumed, *ceteris paribus*, that the demand for output as a whole was stable. Given their acceptance of Says law, this was not an inconsistent assumption to make, but it reduced the application of the theory to the special case of an economy with a given level of national income (i.e. a stable level of constant price GDP).

There was however one potential dilemma for orthodox theory. Entrepreneurial intentions to invest must be based on expectations about profitable returns in the future, and wealth-holders must place their resources in assets which generated returns over the long run, whilst the future was renowned for its vicissitudes. The orthodox answer was to apply yet another special assumption. Orthodox economists restricted their analysis to the special case of an economic

system which was more or less stable at the full employment position.[4] This allowed orthodox economists to apply a *hypothesis of a calculable future*, which Keynes summarised in the following way.

> "[A]t any given time facts and expectations were assumed to be given in a definite and calculable form; and risks, of which, though admitted, not much notice was taken, were supposed to be capable of an exact actuarial computation."
> [Keynes, 1973a, p 112]

With this special case hypothesis decisions-makers would find the inherently uncertain future manageable. Decision-makers could confidently calculate the future *consequences* of present investment decisions, via a calculus of probability. To rephrase, orthodox theory sought to reduce the complexities of uncertainty to the simplicities of certainty itself. This led orthodox economists to erroneously assume that wealth accumulation in a market economy was characterised by *a high degree of stability.*

One final component of the orthodox approach to macro-economics remains to be explained: its approach to inflation. Here the orthodoxy relied on a simple formula first identified in the eighteenth century to which they applied the grandiose title: *The Quantity Theory of Money*. The formula was MV≡PT. M represented the total supply of money, V the speed (or velocity) of money around an economy in a given time period, P was the price level of all articles traded in that period, and T the aggregate volume of transactions conducted in the time period. At all times, assuming transactions were successfully conducted,

MV must equal PT; it was a truism and hence the two sides of the equation were always equal.

To transform a truism into a theory orthodox economists made three special assumptions, two explicit and one implicit. Explicitly they assumed that the speed of circulation of money around the economy (V) was constant and, more importantly, treated the volume of aggregate transactions conducted (T) as fixed (presumably because the levels of constant price GDP and employment were assumed given). Armed with these special assumptions orthodox economists identified a direct relationship between the money supply and the price-level. They then implicitly assumed that the causation in the relationship flowed from the money supply (cause) to the price-level (effect). The conclusion of the Quantity Theory was extremely simply but powerful: inflation was caused by increases in the money supply and could be cured by reducing the money supply.

Flowing from this macro-economic analysis, orthodox economist derived a number of conservative, or perhaps more accurately pro-bourgeois, policy recommendations. The over-riding orthodox policy concern was the avoidance of inflation - protecting the value of money. The aim of monetary policy should therefore be to keep a tight rein on the money supply in order to avoid inflation. Protecting the value of money was a primary concern of the wealth-holding class who lent money over periods of time.

A conservative fiscal policy agenda resulted from the logical application of Says law. Orthodox economists claimed fiscal policy should aim to avoid unnecessary budget deficits (i.e. strengthening the demand for loanable funds) that might increase interest rates and crowd out private investment spending. Avoiding

high interest rates was clearly a concern of the entrepreneurial class seeking to borrow money to finance new capital projects. The aim of fiscal policy should therefore be to balance the budget. Orthodox economists were equally sceptical of tax and spend policies to redistribute the grossly unequal distribution of income and wealth. Their argument was that taxing the rich would lower saving rates, hinder growth and be ultimately harmful to the poorest in society.
Yet sophisticated orthodox economists, like Pigou, appreciated that in periods of exceptionally heavy unemployment a different policy response may be required. From the orthodox perspective unemployment resulted from rigidities or imperfections in the aggregated labour market that caused wages to be sticky. The first-best solution was to make the supply-side of the economy work better by removing government regulation of wages and weakening the bargaining power of trade unions. In periods of high unemployment Pigou reluctantly accepted the case for Government public works as a second-best way to alleviate unemployment. But this palliative only worked, Pigou claimed, by creating inflation which fooled workers into the labour market and masked more deep rooted supply-side failures.

c) Keynes' Revolution

The Great Depression of 1929-33 was an economic earthquake that shook liberal capitalism to its core. It however allowed Keynes to fully appreciate that orthodox economic theory had a fundamental flaw. Due to the latter's acceptance of Says law it had "ignored the need for a theory of supply and demand of output *as a whole*" (Keynes, 1973a; my emphasis). The purpose of the *General Theory* was to make good this deficiency, and provide a generally

applicable theory of employment not reliant on the special assumptions of the orthodox analysis (Keynes, 1973a, 1973b, 1973c, 1973d and 2007; Sheehan, 2009).

New Units of Measurement

Keynes' new theory made use of aggregates which required three distinctive units of measurement. For all spending and income aggregates Keynes applied two units of measurement. The first involved measuring aggregates in *nominal* money terms – or current prices; the second, and most important, required aggregates to be measured in terms of *wage units*. A wage unit related to the money wage paid to a unit of ordinary labour – or a labour unit. When a spending or income aggregate measured in nominal terms was deflated by the wage unit, the volume of labour units associated with that nominal aggregate figure was determined. Finally when measuring aggregate employment Keynes applied a third unit of measurement – that of *labour units*. Hence in Keynes' theory an expansion or shrinkage of employment in an economy could be measured precisely in terms of units of labour.

New Theory

Keynes rejected Says law. Therefore he had to develop a theory for the demand for output as a whole. To do this he devised the concept of *aggregate effective demand* or, as shorthand, *effective demand*. Aggregate effective demand was the central overarching concept of Keynes' new theory of employment. According to Keynes the volume of aggregate effective demand, measured in wage units, determined the equilibrium volume of labour units employed. This marked his most revolutionary theoretical break with orthodox analysis.

Keynes proposed that aggregate effective demand was determined when the aggregate demand price for output as a whole equalled the aggregate supply price of that output. He defined a specific aggregate supply price in terms of the revenues from the sale of output that would *just induce* entrepreneurs to provide the volume of employment associated with that output. By contrast the aggregate demand price for a specific volume of employment related to the *expected* revenues entrepreneurs thought they would generate from the sale of the associated output.

Given some simplifying assumptions, Keynes supposed that aggregate supply price, measured in wage units, changed proportionally with the volume of employment (Chick, 1983; Sheehan, 2009). The aggregate supply price was therefore the passive, or stable, aspect of effective demand. Keynes claimed, however, that the aggregate demand price was likely to be unstable, leading to fluctuations in effective demand. But why might that be the case? To answer this question Keynes divided effective demand into two components; the first was expected *aggregate consumption expenditure*, and the second was expected *total investment spending*.

Central to Keynes' new theory of consumption was the concept of the propensity to consume. Keynes thought that the propensity to consume was a fundamental psychological law. This law stated that as a community's income (Y) changed so too would consumption spending (C), in the same direction but to a lesser extent. Put simply, the value of the propensity to consume was less than unity. The idea is now quite familiar, but at the time Keynes wrote the *General Theory* it struck many as new and interesting, perhaps even threatening. It allowed Keynes in

one simple equation to explain the *largest* spending aggregate in an economy - which must count as an act of genius.

Having identified the propensity to consume it was but a small step for Keynes to detect the marginal propensity to consume, and with it the multiplier effect. The marginal propensity to consume (mpc) equalled the ratio of the change in aggregate consumption and the associated change in aggregate income i.e. $\Delta C/\Delta Y$. The investment multiplier, which connected changes in investment spending to changes in aggregate income, equalled $1/ (1 – mpc)$. Familiarity often causes the revolutionary character of the multiplier to be overlooked. With a multiplier effect Keynes could show how changes in investment spending had an amplified influence on effective demand and employment. What is more, Keynes claimed that the multiplier effect proved that aggregate investment and saving were brought into equality by *changes in aggregate income*. In which case in Keynes' new theory the orthodox loanable funds theory was redundant.[5] With Say's law the orthodox analysis had little need for an explicit macroeconomic theory of investment. Moreover when orthodox economists discussed investment demand, the calculus of probability meant that they seriously under-estimated the capricious nature of long term profit expectations. Freed from such notions, Keynes' next task was to outline a theory of *aggregate* investment spending. Because the objective of all wealth accumulation was to generate returns at comparatively distant dates, Keynes began by considering how decisions-makers coped with the inherently uncertain future. To do this Keynes set out a *practical theory of the future*. This practical theory underpinned Keynes' concept of the *state of long term expectation*; the latter was the foundation for his theory of investment.

A persistent theme of Keynes' work was that the future was inherently uncertain and *not* capable of being reduced to a calculable status. Put succinctly, Keynes argued that decision-makers did not have knowledge of the far future which would allow them to calculate precisely the consequences of present actions. What is more, this lack of future knowledge was particularly acute in the economic sphere. To explain this Keynes approvingly cited the heretical arguments of Joseph Schumpeter. Schumpeter claimed that capitalism was in perpetual flux due to innovating entrepreneurs, and in particular:

> "...their practical application of scientific discoveries and mechanical inventions, their development of new forms of industrial and commercial organisation, their introduction of unfamiliar products, their conquests of new markets, exploitation of new resources, shifting of trade routes, and the like..."
> [Mitchell; quoted by Keynes, 1971a, pp 85-86]

Given this Schumpeterian vision of how capitalism operated, Keynes believed knowledge of the economic future was generally inadequate, changing and obscure. Keynes realised that this caused great difficulties for those concerned with the accumulation of wealth. According to Keynes:

> "If we speak frankly, we have to admit that our basis of knowledge for estimating the yield ten years hence of a railway, a copper mine, a textile factory, the goodwill of a patent medicine, an Atlantic liner, a building in the City of London *amounts to little and*

sometimes nothing; or even five years hence."

[Keynes, 2007, pp 149-150; my emphasis]

How then do decision-makers in the economic realm cope with this uncertainty? According to Keynes they applied conventions. In other words, decision-makers formed *probable forecasts* about the future by using a number of customs or *conventional techniques* to supplement their vague knowledge. The most important was that decision-makers assumed the present was a reasonably good guide to the future, and in the process ignored future changes about which they knew nothing. The second convention was to assume that the existing state of knowledge in terms of asset prices, output levels and product prices were based on correct expectations of the future. The final convention was that when all else failed, and decision-makers were unsure what to think, they simply accepted the *conventional judgment* of the rest of the world – that is they followed the crowd. Keynes claimed that probable forecasts based on this *conventional* method of calculation allowed decision-makers to behave in a *reasoned manner*, though without possessing the knowledge of the future that orthodox theory assumed.

However Keynes claimed that decision-makers were always keenly aware that the conventional techniques they used were arbitrary. They knew that their probable forecasts would, in hindsight, prove to be incorrect, to a greater or lesser degree. Hence Keynes supposed that probable forecasts were held by decision-makers with a particular *state of confidence*. This state of confidence might be strong or weak depending upon how reliable decision-makers believed the conventional techniques to be. If it was expected that there would be

significant changes in the economy in the future, but it was unclear what precise form they would take, confidence in probable forecasts would be weak. Conversely, if few changes were expected in the future and the present situation was a good guide to forthcoming events, confidence would be strong. *The state of long term expectation, therefore, had a twofold character: it incorporated a range of probable forecasts made by decision-makers held with a particular state of confidence.*

According to Keynes the state of long term expectation formed by these conventional techniques was likely to be reasonably stable, so long as decision-makers could rely on the maintenance of the conventions. However, such arbitrary conventions would inevitably have grave weaknesses with respect to predicting the future.

> "In particular, being based on so flimsy a foundation, [the state of long-term expectation] is subject to sudden and violent changes. The practice of calmness and immobility, of certainty and security, suddenly breaks down. New fears and hopes will, without warning, take charge of human conduct. The forces of disillusion may suddenly impose a new conventional basis of valuation…At all times the vague panic fears and equally vague and unreasoned hopes are not really lulled, and lie but a little way below the surface."
>
> [Keynes, 1973a, pp 114-115]

With uncertain knowledge of the future, and a conventional method of calculation, Keynes argued that the state of long term expectation was *liable to fluctuate* without warning. Instability need not be the norm, *but it was a continual threat.*

Armed with this analysis of long term expectation Keynes outlined a new theory of investment demand, framed from the viewpoint of entrepreneurs. He introduced the concept of the *marginal efficiency of capital*. This related to entrepreneurial expectations of future rates of profit – or what Keynes called the future prospective yields - associated with different levels of investment spending. Keynes claimed that these expected profit rates defined the terms on which entrepreneurs would *demand* funds in order to initiate investment projects. Moreover, Keynes proposed that changes in the state of long term expectation had a significant impact on entrepreneurial forecasts of future profit rates. The crux of Keynes' theory of investment demand can be summarised as follows. When the future became more uncertain, and expectations of the future deteriorated, entrepreneurs would downgrade their forecasts of future profits on new investment projects. Investment demand as a result would decline. Conversely, when the future was less uncertain, and expectations about the future improved, entrepreneurs revised upwards their forecasts of future profit rates on new projects. In these circumstances investment demand strengthened. Investment demand was therefore potentially unstable in character.

Having rejected the loanable funds theory Keynes replaced it with a new theory of money and interest - the *liquidity preference theory* of the rate of interest. In this new theory Keynes proposed that the demand and supply of liquidity (i.e. money) determined the *money rate of interest*; the rate of interest was therefore

always and everywhere a monetary phenomenon. The liquidity preference theory viewed wealth accumulation from the viewpoint of those who saved (i.e. rentiers or wealth-holders). According to Keynes the rate of interest governed the terms on which funds were *supplied* by wealth-holders to entrepreneurs in order to undertake investment projects. In addition the state of long term expectation influenced wealth-holders decisions about the holding of liquid money – or what Keynes called the *propensity to hoard*. For wealth-holders sought liquidity as a low risk hedge against rising uncertainty. Keynes claimed that the propensity to hoard had a significant influence on the setting of the equilibrium money rate of interest.

The essence of the liquidity preference theory can be stated in the following way. The money rate of interest fluctuated when the demand for money changed. The most likely cause of a change in the demand for money occurred when the propensity to hoard of wealth-holders fluctuated in response to a changed state of long term expectation. When the future became more uncertain, and expectations about the future deteriorated, wealth-holders' propensity to hoard money as a store of value strengthened. The consequence of this was a rise in the rate of interest, and an increased reward for parting with liquidity. Conversely, when the future became less uncertain, and expectations improved, wealth-holders' propensity to hoard declined. As a result the rate of interest fell away and the reward for parting with liquidity decreased. In other words, the terms – the rate of interest - on which funds were supplied by wealth-holders to finance new investment projects were potentially unstable in character.

Keynes' new theory of aggregate investment spending combined of the analysis of the marginal efficiency of capital (i.e. investment demand) with the liquidity

preference theory of the rate of interest. He argued that a sudden change in the state of long term expectation influenced them both. Keynes concluded that there could be no surprise that investment spending was so liable to fluctuate.

> "For it depends on *two* sets of judgments about the future, neither of which rests on an adequate or secure foundation - on the propensity to hoard and on opinions of the future yield of capital assets…[Indeed] the same circumstances which lead to *pessimistic* views about the future yields are apt to *increase* the propensity to hoard."
> [Keynes, 1973a, pp 118; my emphasis]

Let's clarify Keynes' new approach. Suppose, as a result of adverse news, there was a sudden and significant *deterioration* in the state of long term expectation. As disillusionment spread through entrepreneurs they would downgrade their profit expectations on new capital projects and investment demand would collapse. What is more, the adverse news would undermine the state of confidence of wealth-holders, causing them to sharply increase their desire to hold money as a store of value. This strengthening of the propensity to hoard would cause an increase in the rate of interest. The *cumulative* result of *both* a collapse of investment demand and a higher interest rate would be a sudden decline in investment spending. In addition, the sizable shrinkage in investment spending, amplified by the multiplier effect, would reduce effective demand by an even greater amount. As a consequence total output and employment levels would contract. Of course, the reverse held when there was an improvement in

the state of expectation; investment spending would expand rapidly, as would effective demand and employment.

The general theory of employment can therefore be summarised as follows. The level of aggregate effective demand measured, in wage units, determined the equilibrium volume of employment. Aggregate effective demand was determined where the aggregate demand price and aggregate supply price of output as a whole were equal. Effective demand, measured in wage units, fluctuated due to changes in the aggregate demand price of output as a whole. The most likely cause of changing levels of effective demand was variations in the volume of total investment spending. This occurred because investment spending rested on the insecure foundation of potentially unstable states of long term expectation. What is more, the impact any change in investment spending would be amplified by the multiplier effect, making the overall change in effective demand, measured in wage units, that much greater.

When effective demand fluctuated so too did the equilibrium volume of labour units employed. As effective demand, measured in wage units, increased this generated a higher equilibrium volume of employment; when effective demand, measured in wage units, declined the equilibrium level of total employment shrank. In other words, the general theory of employment dispensed with the need for an aggregated labour market framework.

Having devised a revolutionary theory to explain the level of aggregate employment and why it fluctuates, Keynes considered another important topic. This was the orthodox claim that money wage cutting – the *contractionist cure* - was the best way to counter rising unemployment. He did this in Chapter 19 of the *General Theory*. This explodes one of the most erroneous myths

perpetrated by mainstream Keynesians: that Keynes' *assumed* money wages were constant. Nothing is further from the truth. Indeed Keynes' treatment of wage-cutting and employment formed part of to his claim that his theory was more generally applicable than the orthodox analysis.

The reason why the *General Theory* considered wage cutting and employment was that this subject greatly exercised Keynes in the policy debates of the 1920's and early 1930's. In this period a debate rages about the role of wage cuts in resolving the high unemployment rates experienced in the UK.[6] Keynes throughout this period was an intuitive opponent of these wage cutting policies, for in a free society he thought them impractical, lacking in economic rationale and socially unjust. These objections form the basis for his policy writings before the *General Theory*.

In the *General Theory* Keynes returned to the subject to reveal how a general money wage cut could generate both good and bad results for employment, depending on its impact on aggregate effective demand. Keynes contended that a money wage cut effecting all workers only influenced employment when it changed the propensity to consume, the marginal efficiency of capital or the rate of interest; in other words, if it changed the value of effective demand measured in wage units. Keynes concluded that the influence of a money wage cut was ambiguous, either increasing or decreasing employment depending on a variety of circumstances.

In a liberal, decentralised society – the general case – Keynes' theory predicted that wage cutting probably reduced the level of effective demand measured in wage units and had adverse effects on employment – amplifying unemployment rather than ameliorating it. It was only in a special case – of an authoritarian

society (Fascist or Communist) - where a generalised wage cut could be imposed by decree that the new theory predicted it might have a beneficial impact on employment.

The final component of Keynes' *General Theory* considered changes in money wages and prices that were a response to variations in effective demand and output. The orthodox theory of money and prices was of little use in examining these responses, for it only applied to the special circumstances of a fully employed economy with effective demand, measured in wage units, assumed constant. In contrast in the *General Theory* Keynes provided a generalised explanation of the response of money wages and prices to changes in nominal effective demand. Doing this provided Keynes with a springboard to develop a generalised analysis of inflation and deflation.

Furthermore it is useful to clarify what Keynes meant by the terms *inflation and deflation.* In the *General Theory,* Keynes usually used the term inflation to refer to a *once and for all* rise in prices; similarly with deflation Keynes treated it as a once and for all decline in prices.[7] What is more, Keynes' analysis explained *two* types of inflation - semi and true. *Semi-inflation* occurred in an economy operating below full employment; *true inflation* only arose at the full employment position. The orthodox theory of money prices, of course, only explained true inflation.

Keynes' new theory of inflation and deflation considered a number of scenarios. In an economy operating below full employment, it contented that an *increase* in nominal effective demand would be partly absorbed by increased output and employment and partly by higher money wages and prices - an instance of *semi-inflation*. Put another way the increase in effective demand measured in

nominal terms would exceed the increase measured in wage units. In an economy either with full employment and stable prices or at a below full employment position, a *decline* in nominal effective demand would partly lower output and employment and partly reduce money wages and prices - leading to a *deflation* of the price-level. This time the decline in effective demand measured in nominal terms exceeded the decline in wage units. Finally, in a fully employed economy, the theory asserted that an *increase* in nominal effective demand would be completely absorbed by rising money wages and prices - generating *true inflation*. In this case the nominal increase in effective demand was not accompanied by any rise measured in wage units. Keynes thought the conditions of true inflation were most likely to happen in a war economy where resources were fully utilised and the needs of war production clashed with increased consumption by a fully employed workforce.

New Policy Agenda

In all the contributions Keynes made to the policy debates in the turbulent thirty years spanning two World Wars (Keynes, 1971a, 1971b, 1972a, 1972b, 1972c, 1972d, 1980a, 1980b, 1980c, 1980d, 1980e, 1981a, 1981b and 1982; Keynes and Henderson, 1972; Liberal Industrial Inquiry, 1977), he was concerned with three main issues. Firstly, how can government policy cure an economic depression; second, how can a government prevent war-time inflation; and lastly how can state action promote long-term stability and prosperity. Post publication of the *General Theory* Keynes' policy recommendations focused on how best to manage aggregate effective demand.

Keynes argued the proper cure for a 1930's style depression could be found by using expansionary fiscal and monetary policy, operated in double harness – the

expansionist cure. Fiscal expansion should take the form of a state-led capital development programme. This may involve the State running budget deficits to finance spending (i.e. loan expenditure) so disliked by orthodox economists. Yet Keynes felt it was better to have unbalanced budgets to cure a massive slump rather than pursue balanced budgets, allow mass unemployment to persist, and have capitalism overthrown by totalitarian regimes of extreme left or right. He was however keenly aware that excessive State deficits might have negative effects on business and wealth-holder confidence. In the unique circumstances of the Great Depression, he therefore put aside his free trade beliefs to propose *revenue tariffs*; that is State imposed tariffs to raise tax revenue and lower excessive borrowing.[8] Monetary policy should be expansionary as well. Policy makers should use various instruments to encourage private banks to provide abundant credit at low interest rates (i.e. cheap money) for those who wished to lend. Keynes claimed this would both help stimulate private investment spending and lower the cost of State borrowing.

The expansionary policy, amplified by the multiplier effect, would increase effective demand instigating a recovery of output and employment, and a semi-inflation of the price-level. The semi-inflation was an important part of the recovery, for Keynes argued it lowered the real value of debt in an economy; lower debt burdens gave entrepreneurs who spent a small, but important, advantage over wealth-holders who saved.

To prevent true inflation in war-time Keynes recommended a deferred payment scheme for workers, plus heavier tax on the better paid, in order to reduce consumption demand and free resources for the war effort. What is more, Keynes claimed the extra taxation and deferred pay would help finance the war

effort without recourse to excessive Government borrowing. The expense of any Government borrowing could also be minimised through a cheap money policy. Beyond that Keynes suggested that war-time consumption should be allocated using markets to avoid the inefficiencies and injustices associated with universal rationing and price-fixing. Keynes' espousal of such a market-based solution demonstrates his affective commitment to using markets to allocate resources. Put succinctly, for Keynes it was markets where possible, Government when needed.

In order to promote long-term stability and prosperity Keynes again recommended coordinated fiscal and monetary action; active fiscal policy taking the form of a stable long-term programme of socialised investment accommodated by a permanent cheap money policy. He thought this would work for about twenty years into the post-1945 period, after which further public investment may be wasteful. Beyond twenty years Keynes suggests managing the propensity to consume to stabilise the economy. Once again this might involve keeping interest rates very low, even though this would undermine a key source of income of the wealth-holding classes. Yet Keynes seemed unconcerned about the plight of rentiers, claiming that the euthanasia of the rentier might be socially advantageous. In addition he accepted some limited redistributive policies to bolster the propensity to consume. Using tax and benefit policies to shift income from the rich to the poor would increase the value of the propensity to consume, the value of the multiplier, and the level of effective demand. Certainly, given his rejection of Says law, he had no concerns that this would be harmful to wealth accumulation as orthodox economists had feared.

However Keynes still believed in significant inequality of income and wealth in order to create incentives for the most industrious.

Last, but not least, to create the most propitious conditions for the long term prosperity of all (but especially the poorest) nations, Keynes proposed the creation of a new international fixed exchange rate regime. This new regime was to be built around an *International Clearing Bank* (ICU) providing a new international bank money - *bancor*. The ICU would promote an *expansionary cure* for trade imbalances both though the elastic supply of bancor and a symmetrical exchange rate system requiring action by both debtor and creditor nations when their currencies were out of alignment. Keynes believed his proposals would promote higher volumes of trade and capital movements, and facilitate lower tariffs worldwide. The latter marks Keynes return to his free trade beliefs from which he had temporarily departed in the 1930's. Keynes however retained his dislike of currency speculators which had built up in the 1920's and 1930's. So he designed his exchange rate regime to starve currency speculators of the conditions in which they might prosper. He did worry about speculators; the "freedom" they enjoyed was a dubious liberty, undermining the prosperity of the many to the advantage of the few.

Perhaps one of the great missed opportunities of the Post World War 2 settlement was that Keynes' ICU proposal lost out to Dexter White idea's for a new international order. That is the pax Americana of Bretton Woods, the IMF and GATT – an American peace, on American terms. We still suffer the consequences today with significant and persistent trade imbalances being the blight of the world trading system.

d) Counter-revolution – The Triumph of Orthodoxy

What followed Keynes' theoretical revolution was the rapid emergence of a counter-revolution; its epithet was "mainstream Keynesianism". The counter-revolution began in 1937 with the IS-LM (investment-saving/liquidity-money) theory, the brainchild of John Hicks (Hicks, 1983). Hicks praised Keynes for contributing something new to orthodox theory - the special case of the *economics of depression*. He came to this conclusion by highlighting the possibility of a *liquidity trap*; this was a special case where the rate of interest was so low the demand for money became infinitely elastic, placing a floor below which the interest rate could not fall. Hicks claimed that the liquidity trap was the most important thing in the *General Theory*, despite the fact that Keynes gave it only passing attention. In addition Hicks re-introduced the loanable funds theory where the rate of interest determined the volume of investment and savings. If the liquidity trap set an effective floor below which the interest rate could not fall, yet the loanable funds market required a very low (even negative) interest rate to stimulate investment, the economy could be stuck in a slump. To cure this depression Hicks proposed an active fiscal policy response; clearly monetary policy would be useless. In-so-doing Hicks proposed the mantra which became a shibboleth of mainstream Keynesianism – *fiscal policy strong, monetary policy weak*.

Yet outside of this special, though important, case Hicks claimed the orthodox theory was correct. Therefore whilst Keynes proposed a revolutionary theory that he hoped would change the way people thought about economic problems, Hicks offered the comforting possibility that Keynes' ideas could be

incorporated within the orthodox analysis. Not surprisingly most orthodox economists' embraced the Hicksian interpretation of the *General Theory*. Modigliani (1944) completed the first phase of the counter-revolution. Thinking that an aggregated labour market still underpinned the IS-LM framework, Modigliani argued that unemployment really was not due to deficient effective demand but ultimately existed because of wage rigidity. However, because wages were inflexible downwards the orthodox mechanism of responding to a depression would not work. Modigliani therefore accepted the need to increase "aggregate demand" in order to stimulate employment. Through this reasoning Modigliani grudgingly accepted the case for active demand management to address unemployment, whilst not renouncing the aggregated labour market framework.

The second phase of counter-revolution attempted to interpret Keynes through the lens provided by Walras and his general equilibrium theory (Clower, 1965; Leijonhufvud, 1968). In this frame of reference it was the lack of an auctioneer and the existence of money that caused "Keynesian" unemployment. Hence the State should act as a substitute auctioneer to help individuals towards their optimum plans by stimulating spending when required. New Keynesianism (Malinvaud, 1977; Mankiw and Romer, 1991a and 1991b; Dornbusch, Fischer and Startz, 2004) completed the counter-revolution, with its explanation of the occasional under-utilisation of labour in terms of market imperfections. New Keynesians accepted the necessity of demand management policies as a second best solution for supply-side failures - just like Pigou suggested.

The recurrent theme of all mainstream Keynesianism was the desire to neutralise Keynes' more profound yet disturbing conclusions. This meant that the body of ideas – the "ism" – that was selectively fashioned out of the *General Theory* became a crass distortion of its powerful insights and wisdom. What is more, mainstream Keynesians claimed Keynes' work only applied in the short run, or the disequilibrium process, or when market imperfections existed. But in the long run, in equilibrium, with perfectly functioning markets, the orthodoxy applied. And when Keynes claimed that he provided a generalised theory, of which the orthodoxy was just a special case, he must be wrong.[9] In terms of policy, the sophisticated and innovative agenda Keynes proposed was put aside by mainstream Keynesians, to be replaced by crude justifications for fiscal activism and demand management. Keynes' revolutionary new theory and radical policy agenda were air brushed from the picture, which was the ultimate "triumph of orthodoxy".[10]

e) Revolutionary or Radical?

The most remarkable thing about mainstream Keynesianism was what it revealed about the innate conservatism of the economics profession. The profession seemed genuinely fearful of theoretical innovation, quite apart from a paradigm shift. And on the policy agenda their acceptance of "Keynesian" proposals was very conditional and narrowly based. Relative to this innate conservatism Keynes can be framed as theoretical revolutionary and policy radical, and perhaps he even saw himself that way. Yet on reflection what

stands out most about Keynes was that he was such a mild revolutionary, such a timid radical.

In theoretical terms therefore Keynes never questioned the fundamental premise of all orthodox economics - that it is an inquiry into ends and scarce means - even though in the 1930's both idle workers and productive equipment were anything but scarce. Moreover he never questioned the orthodox conception of markets – the accepted sequence where consumers are sovereign - handed down to him by Marshall, unlike Galbraith who offered a revised sequence with markets managed by large corporations. Not surprisingly this meant that during World War 2 Keynes' rebuked the idea of replacing market-based allocation of consumption with food rationing and price controls as Bolshevism. In addition, Keynes was a lukewarm supporter of economic planning. This is evidenced by Keynes' response to Hayek's *Road to Serfdom* published in 1944. Having read this famous polemic against the dangers of State planning Keynes wrote he wrote to Hayek to congratulate him.

> "In my opinion it is a grand book. We all have the greatest reason to be grateful to you for saying so well what needs to be said…[M]orally and philosophically I find myself in agreement with virtually the whole of it; and not only in agreement with it, but in a *deeply moved agreement.*"
>
> [Keynes, 1980e, p 385; my emphasis]

Keynes therefore strongly supported Hayek's thesis that economic planning was fraught with dangers for a free society, only departing from it to claim that such

“dangerous acts” could be safely conducted by those with appropriate moral values. Keynes presumably had in mind the educated liberal elite who populated the UK Treasury. They would be trustworthy enough to conduct enlightened macro-economic planning – to serve God not the devil.[11]

What is more, his policy proposals - for State led investment programmes, cheap money, some limited redistribution of income, a symmetrical fixed exchange rate system with an elastic supply of international bank money – seem eminently sensible, and mildly progressive rather than radical. This sense of Keynes being a liberal progressive is reinforced by his rejection of widespread state ownership. Keynes’ limited himself to recommending that the Bank of England – the central bank of the UK - be nationalised, something done in 1947 with universal support.

Perhaps all of this should be no surprise, as Keynes was a product of a privileged background; certainly as a member of the educated elite he had no wish to greatly disturb the existing social system. He said of himself that in any future class war he would man the barricades of the bourgeoisie. Keynes only wished to save capitalism; from itself and the twin totalitarian threats of the 1930’s - fascism and communism. Yet even Keynes’ mild rebuke of orthodox theory and policy was too much for a profession who continued to pay reverential homage to the musings of an eighteenth century Scottish teacher – Adam Smith.

The same is still true today. Indeed contemporary economists are if anything more intolerant of theoretical diversity than in the 1930’s. The professionalisation of economics over the last fifty has narrowed it scope of inquiry onto technical, often supply side and informational, problems. In addition the profession has lost

its appetite to address the great questions of the day, or indeed any questions that do not fit nicely into a narrow general equilibrium/statistical/mathematical frame. Modern orthodox economics is great in small things and small in great things. Keynes attempted to be great in great things; and that ultimately was why the orthodoxy rejected his ideas.

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ENDNOTES

[1] In this paper I have applied the appellation "orthodox" when describing macro-economic theory prior to the *General Theory*. Keynes' uses the term "classical theory", but this confuses novice readers about the distinction between classical and neo-classical economists.

[2] It can be viewed as part of the Enlightenment project to find mathematical equations to solve the puzzles of the world. The study of economics therefore needed to be reduced to the study of one "scientific" topic.

[3] The analysis could be expressed either in money wage or real wage terms without materially changing the result.

[4] To rephrase, the system was subject to predictable change, although disappointed expectations were never ruled out.

[5] To illustrate, suppose the community's marginal propensity to consume is 0.8 and total investment spending (I) is 100. The value of the multiplier (k) is 5 (i.e. 1/1 – 0.8). National income (Y) is equal to 500; that is k times I, or 5 x 100. Aggregate consumption spending is equal to 400 (i.e. mpc times Y; or 0.8 x 500). The community's marginal propensity to save (mps) is 0.2, which is equal to 1 – mpc. Aggregate saving equals the mps times Y, or 0.2 x 500, and comes to 100. Investment and saving are equal. If investment spending rises to 150 or falls to 50 aggregate saving will change by the same amounts. Try this for yourself. Hence changes in aggregate income equalise I and S.

[6] In the 1920's it related to the UK government policy of setting an over-valued exchange rate for sterling (by as much as 10-12%) in the Gold Standard system, necessitating a 10 per cent cut in the general level of money wages. In the

1930's even larger wage cuts - of anything up to 30% - were proposed as a cure for the Great Depression in the UK.

[7] This contrasts with modern parlance where inflation means a *persistent and continuous* rise in prices.

[8] Keynes believed that the multiplier effect strongly reinforced the affordability of a capital programme. In the *Means to Prosperity* Keynes used a multiplier estimate of 1.5 to claim that every extra £100 of State capital spending financed by borrowing - what Keynes called *loan expenditure* - added £20 to tax revenues and reduced unemployment spending by £33. Therefore the net cost of the capital projects and the associated employment was roughly half the initial outlay, though the extra tax revenue and lower social security payments only emerged after the elapse of some time.

[9] Patronising anecdotes are wheeled out to confound the interested student; "Keynes was a better philosopher than an economist", or "he learnt his economics in only six weeks from Marshall and can be excused some mistakes" or "yes he was brilliant but enigmatic, intuitive rather than analytical". As Goebbels said the bigger the lie the more people believe it.

[10] This phrase is borrowed from the literature on the victory of iconophile ideas over iconoclasm in ninth century Byzantine.

[11] In his correspondence with Hayek Keynes went on to say that some who supported economic planning wished "to serve not God but the devil." (Keynes, 1980e, p 387)