Keynes: Evidence for Monetary Policy Ineffectiveness? Clark Johnson 23 June 2012 (revised)

Lawrence Summers, who was President Obama's chief economist during 2009-2010, and who by accounts continues to be an important advisor, recently called on the US and other government to increase borrowing at current very low interest rates.¹ He observes that, based on inflation-protected bond rates, current Treasury borrowing costs for securities of five and ten year maturities are negative. He adds that interest rates elsewhere in the world – Germany, Japan, and Britain – are also extremely low. He then argues that governments should look on such rates as an opportunity to borrow cheaply and thereby improve their long-term fiscal positions.

Summers is presumably correct from a fiscal management perspective about benefits of borrowing when interest rates are low. But as a macroeconomic strategy for recovery, that is only the beginning. Whether we turn to John Taylor on the right or Paul Krugman on the left, the essential element for fiscal stimulus to succeed is to stabilize expectations: will the stimulus continue for long enough to drive expectations, so that market participants know the boost will ongoing and not soon withdrawn? Summers' then shifts to monetary policy, where his case is weaker. He says there is no point in "quantitative easing", the open-market mechanism the Federal Reserve uses to inject reserves, as interest rates are already rock-bottom – and monetary easing works, he explains, through the mechanism of lowering interest rates. Presumably, this is what he has been telling Obama since 2009.

Summers' reasoning draws at least in part, on John Maynard Keynes' discussion about "absolute liquidity preference" that occur when interest rates are very low, and demonstrates a key argument used in policy circles against more aggressive use of monetary policy. I believe Keynes was, and Summers is, mistaken. Literature on Keynes is abundant. To gain a different perspective, I want to look at various evidence Keynes adduced against monetary remedies. I will then return to arguments he used in the *General Theory* (1936) and elsewhere, hopefully with fresh perspectives.

1. KEYNES' ILLUSTRATIONS FOR MONETARY POLICY INEFFECTIVENESS

A portion of Keynes' reputation as an economist, and of his place in history, rest on his diagnoses of crisis situations and his proposed remedies. Well-known examples include his tract on the post-World War One Versailles Conference, *The Economic Consequences of the Peace* (1921), and subsequent writings on hyperinflations and then on British deflation during the 1920s. Another, less well-known, was his discussion of French monetary and political crises during 1925 and 1926, which I credited in my own work on the period.² His two-volume *Treatise on Money* (1930) provided detailed and often shrewd observations on a wide range of economic policy matters.

In contrast, the General Theory, the heart of Keynes' contribution to economic ideas, is light on

¹ Lawrence Summers, "Look beyond interest rates to get out of the gloom," *Financial Times*, 3 June 2012

² H. Clark Johnson, Gold, France, and the Great Depression, 1919-1932 (Yale, 1997)

historical or even contemporary illustration. So the reader seeks to fill in the gaps by turning to other writings. Consider four prominent cases as they reflect on Keynes' view of roles of monetary and fiscal policy.

a) British Deflation in the 1890s

An unexpected embrace of fiscal activism comes in the *Treatise* discussion of the deflation of the early 1890s, where Keynes argued that the Bank of England's gold reserves were abundant and credit was easy. But prices in Britain and the world nevertheless went into decline, which undermined profit and investment and reduced employment. He wrote:

I consider, therefore, that the history of this period [1890-1896] is a perfect example of a prolonged Commodity Deflation – developing and persisting in spite of a great increase in the total volume of Bank-Money. There has been no other case where one can trace so clearly the effects of a prolonged withdrawal of entrepreneurs from undertaking the production of new fixed capital on a scale commensurate with current savings.

Keynes then concluded (anticipating his arguments a few years later, including in the *General Theory*,) that monetary expansion does not always work, and that there might therefore be a role for public investment projects to boost demand.³

Keynes' discussion of the 1890s misses the point. Britain in the late nineteenth century was part of an open world economy, with easy movement of goods, people, and especially capital. Keynes neglected to mention that system-wide demand for gold rose much more than the supply from the 1870s through the 1890s as nearly two dozen countries adopted or re-adopted the gold standard, and hence needed to accumulate reserves. Indeed, demand drove the commodityexchange value of gold to the highest level it was to reach in four centuries of record-keeping⁴ -the flip-side of commodity price deflation. The commodity price decline reduced profits and chilled investment demand; but commodity prices were determined in international markets, not in Britain.

While demand for gold was surging, the world's monetary gold supply in the mid-1890s was at its lowest point it was ever to reach relative to its 1800-1920 trend line.⁵ As the mines in the South African Rand cranked up production in the 1890s, relative gold supply and commodity prices increased, nearly in tandem after 1896 – thus ending the Commodity Deflation, and initiating a gentle inflation. A growing money stock affected not just the supply of credit (as reflected in a declining interest rate), but also the demand for it. A result was nearly two decades of economic growth in all of the industrial powers, which was sadly interrupted by the First World War.

Monetary events were at the heart of both the origins of and recovery from the depression of the early 1890s. Keynes himself gave this backhand acknowledgement with his comment a few

³ John Maynard Keynes, *Treatise on Money* (1930), Ch. 30 (ii).

⁴ Roy Jastram, *The Golden Constant* (1977)

⁵ League of Nations chart, reproduced in Johnson, p. 52.

paragraphs later that, "the fall of prices [in the early 1890s] could only have been avoided by a much greater expansion of the volume of bank-money." It is revealing that Keynes could discuss price trends during that period without mentioning the geographic expansion of the gold standard – easily the most important monetary development of the era.

b) The onset of the Great Depression

Moving to then contemporary events, Keynes' discussion of the "slump of 1930," also in the *Treatise*, builds on similar themes.⁶ Gustav Cassel and Ralph Hawtrey had argued a few years earlier that the undervaluation of gold following restoration of gold standards at prewar gold prices would force world-wide monetary contraction, especially as former belligerents Britain, France, Germany, and Italy restored their gold standards. Keynes, in contrast, told the Royal Commission on Indian Currency in 1926 that central banks would adjust their currency reserve cover ratios if their gold stocks became inadequate – which allowed him to dismiss the danger. Keynes underestimated what we might call the mystique of gold money.

Keynes listed factors driving interest rates higher during the 1920s: corporate borrowing for new industries; governments borrowing to pay reparations and war debts; central banks borrowing to add reserves; and speculators borrowing to buy shares of stock. He identified but was less able to explain the collapse internationally in anticipated returns in investment – what he would later call the marginal efficiency of capital -- that occurred in the mid-1920s. As in considering the early 1890s, he did not connect the fall-off in real yields on new investment with systemic monetary constraint. Parallel to what happened in the 1890s, the middle and late 1920s saw a commodity deflation as key countries adopted or returned to gold standards. He thought monetary expansion worked through lowering interest rates, without directly affecting demand for goods and services. He wrote that the only ways to boost demand were by lowering interest rates, especially long rates, further – or by government fiscal activism. He did not understand that the world required a higher gold price to restore gold-to-currency reserve ratios, or perhaps needed a departure from gold money altogether.

c) The Roosevelt Recovery in 1933

Keynes' comments in January 1934 on the monetary-fiscal mix in the US were baffling. In one of his initial acts after Roosevelt's accession to power in March 1933, the dollar was allowed to depreciate against gold. This was a momentous event in monetary history – the underlying cause of the interwar deflation had been removed, and the gold standard was never restored with the same conviction. Keynes nevertheless wrote:

One half of [Roosevelt's] programme has consisted in abandoning the gold standard, which was probably wise, and in taking various measures ... to depreciate the gold value of the dollar... [But i]t is not easy to bring about business expansion *merely* by monetary manipulation. The other half of his programme, however, is infinitely more important and offers in my opinion much greater hopes. I mean the effort to cure unemployment by large-scale expenditure on public works and similar purposes.⁷

⁶ Treatise, Ch. 37 (iv) "The Slump of 1930."

⁷ Keynes, "Roosevelt's Economic Experiments," *The Listener*, 17 January, 1934.

This summary scarcely acknowledges the results of the real-time experiment in expansionary monetary policy undertaken in the US within the previous year. Depreciation succeeded at least to the extent any advocate could have hoped. Industrial production soared by 57 percent during the first four months of the Roosevelt Administration beginning in March 1933 – this was the actual increase, not an annualized rate -- making up half of what had been lost since 1929. It was the fastest four-month rate of expansion in industrial production in the history of the US. Yet Keynes apparently considered this event to be "infinitely" less important than the boost to come from fiscal borrowing for public works programs.

Had the experiment continued for a few months more, pre-crash production levels might have been recovered. Unfortunately, the NIRA (National Industrial Recovery Act, announced in July 1933, brought micro-policy changes that had the effect of stopping the recovery in its tracks. The NRA (National Recovery Administration), set up under NIRA, then negotiated specific sets of codes with leaders of the nation's major industries; the most important provisions were anti-deflationary floors below which no company would lower prices or wages, and agreements on maintaining employment and production. Within a short time, the NRA reached agreements with most major industries. In a phrase, the NIRA wanted to increase prices by restricting output rather than by increasing demand. Scott Sumner provides several rounds of evidence for the contractionary impact of NIRA policy in his soon-to-arrive book, *The Midas Curse: Gold, Wages, and the Great Depression*.

Lest this appear suspect as a predictable right-wing narrative of the New Deal, consider that Keynes himself pointed to the "fallacy" of the NRA approach: He noted that "rising prices caused by deliberately increasing prime costs or by restricting output have a vastly inferior value to rising prices which are the natural result of an increase in the nation's purchasing power." He added that it was "hard to detect any material aid to recovery in the National Industrial Recovery Act."⁸ Within six months after the NRA went into effect, industrial production had dropped twenty-five percent,⁹ erasing nearly half of the gains recorded during Roosevelt's more successful initial months in office.

So here we are. We saw an historically sharp recovery for four months during 1933, driven almost entirely by a decision to break the straightjacket imposed on monetary policy by the international gold standard. Keynes had previously been an able critic of the gold standard, for example in the *Tract on Monetary Reform* (1923) and then in several chapters in the *Treatise*. The 1933 recovery was then stalled by micro-policies of which he was explicitly critical. Yet Keynes seemed to dismiss this entire episode in his call a few months later for fiscal stimulus!

d) The 1937-38 Contraction in the US

A few years later, Keynes disregarded evidence of the role of monetary policy in triggering a sharp relapse into near-depression conditions in the US during 1937-1938. The dollar depreciation of 1933 and the formal increase of the gold price to \$35/ ounce in 1934 meant automatic revaluation of central bank gold stocks and gave impetus to increased gold exploration

⁸ Keynes, "Mr. Roosevelt's Experiments," London Times, 02 Jan 1934.

⁹ <u>http://en.wikipedia.org/wiki/National_Recovery_Administration</u>

and production – concentrated, as it happened, in the Soviet Union. (Keynes noted the irony that increased Soviet efficiency in mining of gold was bailing out world capitalism!) He also noted that new gold reserves were bringing increased effective demand to the world economy that might result in "abnormal profits."¹⁰ Keynes understood (at least some of the time) the role of growing liquidity in the economic recovery of the mid-1930s.

In what now appears as one of the worst mis-steps in its history, the Federal Reserve, responded to rising wholesale prices in 1936 by deliberately sterilizing new gold inflows.¹¹ A money supply measure (M2) that increased by 12 percent annually during 1934 -1936, suddenly turned flat and even slightly negative from about January 1937 to July 1938.¹² Real GDP fell by 11 percent during this period, and industrial production fell by 30 percent. Rather than sterilize gold, had the Fed intervened in financial markets to target a modest rate of increase in any of a number of variables – a price index, industrial production, either real or nominal GDP growth, even a money supply indicator – most of the 1937-1938 contraction could have been avoided. By August 1938, the sterilization policy was jettisoned, and economic recovery resumed.

In February 1938, Keynes offered advice in a private letter to President Roosevelt that mentioned little of this. He did acknowledge that addressing "credit and insolvency problems" was an essential step toward recovery, as this created a necessary "supply of credit" – while, one infers, demand for that credit would have to come from elsewhere. This comment reflected Keynes' ongoing view that expected returns on investment – the schedule of marginal efficiencies of capital -- was independent of monetary policy. He went on the recommend that the US could "maintain prosperity at a reasonable level" only through "large-scale recourse to … public works and other Investments aided by Government funds or guarantees."¹³

Despite Keynes' recommendations, the lesson of *all four* of the illustrations here is that increasing money balances – through open market purchases, or through new gold or foreign exchange reserves – *does* affect expected returns on investment in plant and equipment, in equities, and in real estate.

2. ARGUMENTS FOR FISCAL ACTIVISM

We could stop here, having assembled evidence of Keynes' dubious conclusions about relative un-importance of monetary factors in specific pivotal events. Indeed, evidence from these cases points strongly in the opposite direction, toward the crucial role of such factors. But the prominence of Keynes' fiscalist legacy requires that we go further. Evidence aside, what was Keynes' argument? In fact, he had a sequence of arguments.

In 1929, Keynes offered a comparative argument in favor of fiscal stimulus, and against monetary stimulus, specific to economic circumstances in Britain at the time.¹⁴ Keynes

¹⁰ Keynes, "The Supply of Gold," *Economic Journal*, Sept 1936.

¹¹ That is, coupling purchases of gold with offsetting sales of other central bank assets to drain liquidity

¹² Doug Irwin, *Gold Sterilization and the Recession of 1937-1938*, NBER Working Paper No. 17595, Nov 2011.

¹³ In Collected Works of JM Keynes, Vol 21, pp. 434-39.

¹⁴ Keynes, "A Program of Expansion (General Election, May 1929)," in *Essays on Persuasion* (1931), p. 124f.

anticipated some portion of an argument Robert Mundell was to make decades later regarding the "policy mix," that is, the appropriate mix of monetary and fiscal policy to meet both domestic output and external exchange rate targets.¹⁵ Britain in 1929 was on the international gold standard, hence was constrained externally by the need to maintain gold reserves. The Bank of England could not simply create credit, because, Keynes reasoned, "such credit might find its way to foreign borrowers, with the result of a drain of gold out of the Bank." Hence Keynes proposed fiscal stimulus to increase domestic demand and employment, alongside monetary constraint to maintain Britain's reserve and exchange rate targets.

This well-grounded argument also offers possible insight into the 1890s, where demand for gold reserves among central banks generated monetary contraction. Keynes, as we saw, did not make that argument – but we can construct it *post facto*. While the best solution might have been some international agreement to increase demand by modifying the international gold standard, a purely national approach could have looked to a fiscalist demand boost. But Keynes soon abandoned this policy-mix argument.

a) Removing external constraint on Monetary Policy

The US had freedom of action in monetary policy in 1933 and 1934. By March 1933, the dollar had been floated against gold, hence removing the external policy constraint – and, in any event, the US had by then accumulated vast gold reserves. In Keynes' comments in January 1934, he had moved beyond his 1929 analysis. His newer interest was to argue that fiscal activism was preferable to monetary expansion even if the latter was *not* constrained.

Keynes in the *General Theory* (Ch. 15, "Incentives to Liquidity,") offered the argument that monetary policy was specifically unsuited to boost economic demand when interest rates approached zero percent. In conditions where interest rates could not be lowered further, he reasoned, a condition of "absolute liquidity preference" held, later dubbed a "liquidity trap." He observed, "In this event, the monetary authority would have lost effective control over the rate of interest." This argument is cited endlessly by later-day Keynesians in support of a fiscalist agenda. (For example, see the reference to Summers mentioned at the outset.)

But the argument establishes much less than Keynes needed for his fiscalist agenda. Near-zero interest rates did not prevail in *any* of the four situations discussed earlier – yet Keynes wanted fiscal activism in all of them. So his case against monetary activism went beyond situations of absolute liquidity preference.

As noted earlier, Keynes pointed to a collapse in the marginal efficiency of capital as the trigger for the "slump of 1930." The *General Theory* does much more to advance the concept that investment volume is unstable. Much of Keynes' vision for government intervention, including fiscal activism, follows from his discussion of the fickleness of financial markets (Ch. 12, "Long Term Expectations.") Noting the instability of private sector investment volume, he advocated a larger role by the government in stabilizing investment demand, often through direct outlays.

Keynes' argument often shifted from the instability of the investment function to concern that

¹⁵ For ex., Robert Mundell, *The Dollar and the Policy Mix* (1973)

investment was and would remain chronically weak - hence the conclusion that high unemployment was not self-correcting, but could persist for years. In Ch. 17 on the "Essential Properties of Interest and Money," Keynes noted situations where the:

...rate of interest declines more slowly, as output increases, than the marginal efficiencies of capital-assets measured in terms [of the same asset].¹⁶

As formulated in one of several instances in Ch. 22 ("Notes on the Trade Cycle"):

A more typical, and often the predominant, explanation of the crisis is, not primarily a rise in the rate of interest, but a sudden collapse in the marginal efficiency of capital.¹⁷

This pattern of falling marginal efficiencies of capital made Keynes increasingly skeptical of monetary remedies.¹⁸

A counter-argument is that adding liquidity – through open market purchases, gold inflows, or variations on these – might directly boost demand, and hence boost the marginal efficiency of capital, by increasing cash balances. But Keynes usually argued, to the contrary, that monetary policy worked mainly through raising or lowering interest rates -this was certainly a premise of the "liquidity trap" argument in Ch. 15. Further on, he wrote that "the primary effect of a change in the quantity of money on the quantity of effective demand is through its effect on the rate of interest."¹⁹ In the *Treatise* chapter on "Control of Investment," where he calls for open market operations *a outrance*, the goal is to bring "the market rate of interest ... down to the limiting point." In 1937 articles on "finance," where Keynes stressed the crucial role of monetary policy, he again emphasized the channel of lowering interest rates.²⁰

b) New Money and Money Demand

Keynes' premise is not credible. Monetary economics routinely identifies channels other than interest rates through which additional money creation can affect demand. For example, Frederic Mishkin, former member of the Fed Board of Governors, has identified channels of exchange rates, financial asset prices, real estate prices, wealth effects on consumption, and increase in bank lending capacity (among others) through which demand can be increased.²¹ Pertinent here, Keynes himself sometimes made the argument that monetary expansion could boost demand directly, independent of impact on interest rates.

¹⁶Keynes, General Theory of Employment, Interest, and Money (1936), p. 236.

¹⁷ General Theory, p. 315.

¹⁸ Axel Leijonhufvud offers a variation on this argument with the comment that in in Ch. 37 of the *Treatise* "the assumption that entrepreneurs are right was dispensed with" - that is, entrepreneurs became, in Keynes' judgment, excessively bearish. In "Keynes and the Effectiveness of Monetary Policy," Information and Coordination (1981). Leijonhufvud argues that Keynes' subsequent arguments therefore relied more on fiscal intervention. ¹⁹ General Theory, p. 298.

 ²⁰ For ex.,Keynes, "The 'Ex Ante' Theory of the Rate of Interest," *Economic Journal* 46 (1937)
 ²¹ Frederic S. Mishkin, *The Channels of Monetary Transmission: Lessons for Monetary Policy*, NBER Working Paper 5424, Feb. 1996.

For example, in the *Treatise* chapter on "Monetary Factors," Keynes noted that monetary stimulus might bring together a previously "unsatisfied fringe of would-be entrepreneur borrowers who were ready to borrow ... even at the old terms [i.e., without lowering interest rates], and ... an unemployed fringe of the factors of production [workers] to offer employment to additional quantity of the factors of production." In an additional impact, he wrote that "certain entrepreneurs may now be willing to increase their output even if this means making higher offers than before to the factors of production because (as the ultimate result of the influx of new money) they forsee profits."²² As Keynes here demonstrates, the underlying goal of monetary expansion is to satisfy an unmet demand for money. The consequence may be to lower interest rates, but it may also work by directly increasing demand for goods and services, and for credit to purchase them.

The General Theory has comparable passages. In Ch. 11, on the "Marginal Efficiency of Capital," he linked changes in investment prospects to prior changes in prices. He wrote, "the expectation of a fall in the value of money [i.e., inflation] stimulates investment, and hence employment generally, because it raises the schedule of the marginal efficiency of capital, i.e., the investment demand schedule." Consider that it is just this link between higher prices – as a result of the dollar depreciation -- and the large increase in industrial production that Keynes minimized in his earlier-cited comments on the US recovery in 1933. In Ch. 21, on the "Theory of Prices," Keynes noted that "new money" could lead directly to increases in effective demand, which would be "divided between the rise of prices, the rise of wages, and the volume of output and employment."²³ Turning again to the illustrations in the Section 1, in three of them – the 1890s commodity deflation, the slump of 1930, and the near-depression of 1937-1938 -- lack of "new money" was at the heart of the downturn.

The way Keynes understood monetary policy to work did *not* require him generally to reject monetary measures in order to boost aggregate demand. Most likely, Keynes was instead motivated by a deeper structural view of the economic system in crisis, one driven by a transformative vision. His views on monetary policy and his social philosophy came together in the forecast for a declining marginal efficiency of capital.

In Ch. 16 of the General Theory, Keynes anticipated a future "where capital goods would be so abundant" that the average marginal efficiency of capital would fall to zero.²⁴ It was a logical extension of his view of financial markets, driven by fickle expectations, and of what in the early 1930s was growing "bear" sentiment. He added in the final chapter, "Concluding Notes on the Social Philosophy Toward Which a General Theory Might Lead," that such an abundance of capital would bring about the "euthanasia of the rentier, of the functionless investor," which he described as an "aim" of public policy, one perhaps to be realized "within one or two generations."²⁵ His notion was similar to the Marxian concept of a declining rate of profit -following accumulation of physical capital. The stagnationist thesis, Keynesian or Marxian, resonated with the Left, especially during the depressionary Thirties. It was a thesis about the real sector, about production and distribution, about capitalism and power. Keynes' proposed

²² Treatise, Ch. 17 (i).

²³ General Theory, p. 298.
²⁴ General Theory, pp. 213f, 218.

²⁵ General Theory, p. 376.

remedy was to scale back the reach of market relations, and to replace them with an expanded role for the State. And there was no room in this vision for anything so apparently skin-deep as expansionary monetary policy to restore growth and boost the marginal efficiency of capital. It is unusual to find a Marxian or Socialist economist who will consider monetary policy as other than a distraction. Keynes' own goals were more moderate – to overcome deficiency of demand and, thereby, to undermine the appeal of Communism and Fascism.²⁶

Leaving the longer term horizon and returning to the causes of Depression in the early 1930s, Keynes wrote at the end of the *General Theory*: "It is certain that the world will not much longer tolerate the unemployment which, apart from brief intervals of excitement, is associated – and in my opinion, inevitably associated – with present day capitalistic individualism."²⁷ Had Keynes proposed monetary easing through open market operations, his inferred premise would have been that the capitalist system was structurally sound – merely that money demand was, for the moment, not being satisfied – hardly the stuff of a self-described revolution in economic thinking.

The case since the 1930s for a collapsing rate of profit following accumulation of capital has little evidence to support it. Keynes underestimated potential demand for new investment, not to mention ongoing obsolescence of previous investment, in a world with seven billion people, most of them seeking to enhance their material comfort and social status. A. C. Pigou, Keynes' oft-times nemesis, dismissed the stagnationist thesis almost immediately, noting "An era that has witnessed the development of electrical apparatus, motor cars, aircraft, gramophone and wireless, to say nothing of tanks and other engines of war, is not one in which we can reasonably forecast a total disappearance of openings for new investment."²⁸

Keynes' view that the world depression of the 1930s was caused by "capitalistic individualism" has done more damage. As we have seen, the major downturns during the decade of depression were driven by gold standard rigidity, reserve shortages, inopportune central bank sterilization, and to a lesser extent by anti-market micro-economic policies associated with the New Deal. Major economic boosts came from currency depreciations against gold and subsequent monetary ease. The problem was *not* markets run amuck, irrational pessimism on stock exchanges, excessive capital accumulation, or lack of government stimulus. Whatever the all-in contribution of the *General Theory*, it had the unfortunate consequence of diverting attention from the monetary dynamics that had brought depression. Alas, Keynes' legacy as received some three generations on has contributed to the confusion that fiscal stimulus is the best way to boost demand, while monetary policy is often perceived as either ineffective or as just tinkering – when, some would have it -- drastic structural change is necessary.

3. EQUILIBRIUM WITH UNEMPLOYMENT

Keynes essential claim in the *General Theory* was that unemployment could persist for years, *even if wages and other factor costs were flexible*. The point was that even if factor costs fell,

²⁶ Robert Skidelsky, John Maynard Keynes 1883-1946: Economist, Philosopher, Statesman (2003), p. 538.

²⁷ General Theory, p. 381.

²⁸ Pigou quoted in Skidelsky, e.g., p. 539.

the marginal efficiency of capital might not recover because it was driven by market expectations -- which were volatile, and trending downward. Falling costs might even be taken, not as restorative, but as evidence of weak demand and sagging investment prospects. Investment might then stay below the level needed to maintain full employment. Keynes was *not* claiming that *general* equilibrium was maintained in the face of unemployment, as critics were later to assert. He used the term "equilibrium" more modestly to mean that unemployment could persist, and that it was not self-correcting.

Keynes never really explained why he thought monetary policy worked mainly through its effect on interest rates, rather than directly on demand. This paper suggests the hypothesis that he saw accumulation of physical capital as inexorably leading to lower capital efficiency and declining profits. With this premise, an attempt to reboot investment by increasing money and prices – even if it succeeded in the short run -- would just mean more rapid accumulation of capital, and hence more rapid decline in profits, in a self-reinforcing stagnationist circle. This conclusion was falsifiable, and has been falsified. To be fair, it pushes Keynes' suppositions to the edge of what his text might support, and Keynes never wrote it down, not in so many words.

Keynes was more inclined to dodge the whole topic, either by indirection or deliberately. The best example of his dodge on monetary factors comes near the beginning of the *General Theory*, where Keynes quotes John Stuart Mill's description of Say's Law, the classical doctrine according to which "supply creates its own demand." Keynes sets up Say's Law as a counterpoint for his own theoretical grand design. Keynes quoted Mill to demonstrate that "classical" economists thought it possible to "double the purchasing power" merely by "doub[ling] the supply of commodities in every market."²⁹ Astonishingly, Keynes then chopped off the rest of Mill's paragraph, in which was included –

...money is a commodity; and if all commodities are supposed to be doubled in quantity, we must suppose money to be doubled too, and then prices would no more fall than values would.³⁰

Algebraically, an excess supply in one market must be matched by an excess demand in another. A shortfall of demand for goods implies a matching excess (unsatisfied) demand for money. Mill and other Classics recognized this – it was not Mill but Keynes who typically neglected discussion of such monetary dynamics. Mundell highlighted this omission decades ago:

...Keynes perpetrated an historical error in the economics profession lasting several years, a distortion of the classical position that to this day remains in the elementary textbooks. By thus attacking the logic of the central feature of the classical theory through carelessness or mischievous omission of its essential parts, Keynes was able to win disciples over to the belief that there was a fatal logical defect, an absurd premise, in the classical system.³¹

With somewhat more effect, Keynes did provide a critique of the conventional Quantity Theory

²⁹ General Theory, p. 18.

³⁰ J. S. Mill, *Principles of Political Economy*, 1909 edition; p. 558.)

³¹ Mundell, Man and Economics, 1968; p. 110

of money – which he had himself endorsed in his earlier *Tract on Monetary Reform*. In the *Treatise*, he argued the case over several chapters that some cost and other factor price increases were tied directly to increases in the quantity of money, while price increases that feed into profits might be less correlated with changes in the money supply. Indeed, where demand for money increases, a higher quantity of money might even correlate with lower aggregate profits and hence with lower prices.³² Slaying the Quantity Theory, so to speak, was important to many of Keynes' early followers, in whose understanding it opened the way to an active role for the State and to deploying an array of fiscal "multipliers."

It is otherwise less important. Monetary economics has by now moved past the Quantity Theory, or growth of the money supply, as a policy marker. Lars Svensson and Scott Sumner recommend that central banks stabilize expectations by targeting a steady rate of growth in Nominal GDP. Svensson has written that Milton Friedman told him late in his life that monetarists should target nominal GDP rather than growth in the money supply.³³ I would qualify their recommendation with the suggestion, given the dollar's role as the world economy's key liquid asset, that US monetary authorities should also target foreign exchange rates during financial crises, especially the dollar-euro rate. But nothing about moving beyond the Quantity Theory makes monetary policy less important, or makes interest rates the only channel, or they main channel, through which it can be effective.

The historical illustrations in the opening section suggest that economic slumps and unemployment persisted because effective monetary expansion did not occur. This was true even where interest rates were already very low and where the marginal efficiency of capital was falling sharply. The de-stabilizing factor was inept monetary policy, or inability to change such arrangements as the international gold standard. The irony is that Keynes, the acclaimed revolutionary of Depression economics, had so little to say about the uses of monetary policy when interest rates fell to historic lows and anticipated investment returns went even lower. Perhaps this was because he sought changes in the relationship between State and Market for which considerations of monetary economics were a distraction.

But faced with the aftermath of the 2008 financial sector crisis and the ongoing Euro-zone crisis, we should avoid such distraction.

³² See also, *General Theory*, pp. 208-209.

³³ Lars E.O. Svensson, *What have economists learned about monetary policy over the past 50 years?* January 2008. At <u>http://www.princeton.edu/svensson/papers/Buba%20709.pdf</u>