



Policy Note

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LIQUIDITY PREFERENCE AND THE ENTRY AND EXIT TO ZIRP AND QE

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While there are ardent critics of the unconventional monetary policies central banks employed in response to the 2008 crisis, there is nearly widespread acceptance that conditions would have been much worse in their absence. One possible explanation of the general agreement on the positive impact of these policies is that their paternity might be claimed by both Milton Friedman and John Maynard Keynes—an unlikely parentage.

In his well-known apology to Milton Friedman, Ben Bernanke (2002) promised that, although the Fed got its policy wrong in the Great Depression by failing to act to increase the money supply, he would ensure that the Fed would not make the same mistake again.¹ Zero interest rate policy (ZIRP) and quantitative easing (QE) may be interpreted as fulfilling Bernanke's 2002 promise to heed Friedman's advice when he was faced with the collapse of the economy in 2008.

At the same time, as argued elsewhere (Kregel 2013), the penultimate chapter of volume two of Keynes's 1930 *Treatise on Money* contains monetary policy proposals designed to confront the developing Great Depression that are the same as those used in Japan in the 1990s and by the Federal Reserve after the recent crisis. Keynes called for "extra-ordinary" actions by central banks to carry "open market operations to the point of saturation" (Keynes 1930a, 369), advice that he repeated in the following two years, but with declining assurance,² until he rethought his position fully in the *General Theory*. Indeed, Keynes's policy proposals were even more explicit than the

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current unconventional policies, advocating a zero short-term policy rate and open market purchases for longer-dated securities.

The intermediate objectives in both the Keynes and the Bernanke policy were broadly similar: for Keynes, to induce more financing for investment; for Bernanke, to induce more lending to increase the money supply. For both, the policy appears to have been a clear failure. Instead of producing an increase in the money supply, the modern policy has simply produced a swap of bank assets for central bank liabilities. And although the policies have managed to reduce long-term rates below what they might have been, this has not produced any noticeable increase in borrowing to finance investment spending, which was Keynes's desired outcome. Thus, on the monetarist interpretation, the policy failed to increase the money supply, despite Bernanke's promise to Milton Friedman, and although for Keynes the operation on long-term rates succeeded, it failed to have the desired impact of increasing investment.

This failure is often linked to the limits to conventional monetary policy created by Keynes's liquidity trap as presented in the horizontal LM curve in the standard IS-LM models. This is misleading: first, because the concept of liquidity preference and the associated liquidity trap were developed in the transition from the *Treatise* to the 1936 *General Theory*, and thus apparently played no part in Keynes's proposals of unconventional ZIRP and QE policies in 1930; second, and more important, because the presentation of the liquidity trap in the standard IS-LM model has little if anything to do with Keynes's ideas in the *General Theory* about the limits to monetary policy caused by the liquidity trap.

It is the liquidity trap that is brought into play as the culprit to explain why ZIRP policy has failed to perform in reality as expected in theory. Indeed, this might be better described as the zero lower bound (ZLB) theory rather than the liquidity trap. In simple terms, the ZLB theory tells us that policy rates lower than zero may be required for the successful operation of monetary policy. The reasoning is that recovery can only be engineered if the nominal interest rate is below the "real" interest rate. If the real rate is below zero, it is the zero lower bound that prevents monetary policy from inducing expansion in the money supply.

ZLB theory also provides the modern justification for the move into unconventional monetary policy, represented by the purchase of longer-term assets to push down longer-term interest rates via QE. If the "traditional" short-term interest rate

used for policy is impaired because of the ZLB, then additional measures are needed: measures to influence the other available (longer-term) rates that are normally excluded from traditional policy because of fear that intervention would distort the market allocation of long-term investments. By reducing the yield advantage on term securities, investors should be driven to seek higher yields, and higher risk, by shifting into real expenditures.

But again, in practice the impact of QE was primarily on reductions in mortgage rates (traditionally benchmarked to 10-year Treasuries), which produced a refinancing boom, and a boom in equity prices due to the rise in the discounted value of future earnings of cash-rich companies that aided the process by engaging in share buybacks. The distributional consequences of QE should be obvious, as the benefits accrued to those who were employed and current on their existing mortgage payments (so they qualified for refinancing), those who possessed equity portfolios, or corporate or investment managers who had their incomes linked to stock options.³ But all this occurred without any appreciable increase in the money supply, or in investment or employment. Indeed, the money multiplier appeared to be moribund, reducing the credibility of policy based on Friedman's monetarist counterrevolution and a stable demand for money function.

The policy's impact on asset prices has produced criticism that it is laying the foundation for the next bubble, and has triggered calls for two radically opposed policies: higher interest rates to offset the expected resurrection of the money multiplier, or further reductions in interest rates to levels below the zero rate. These contradictory responses to the failure of ZIRP and QE to produce the desired recovery also stem primarily from the failure to understand Keynes's idea of liquidity preference.

As readers of the *General Theory* will be aware, one of the basic differences between the *Treatise* and the *General Theory* was that the latter jettisoned the concept of a "real" rate of interest capable of producing equilibrium⁴ and replaced it with two new concepts: liquidity preference and marginal efficiency of capital. The liquidity trap in the sense of extreme or complete liquidity preference explained why relying on policy to reduce interest rates might not produce an expenditure response because it prevented any further decline in interest rates.

The originality of the *General Theory* was the emphasis on the impact of expectations of the future on present decisions. Keynes noted that for any current value of the short-term interest rate investors would prefer to be liquid and hold money if

they expected interest rates on other assets to rise by more than the square of the current rate, since this would mean that capital losses on securities would more than offset their annual yield. It was the expectation of future long rates that set the bound on current rates, not any absolute value or any “real” rate. Thus, as long as the public believed that rates would rise by more than the square of the current rate, it would be impossible to convince them to hold anything other than money, and the current rate would be immovable by means of traditional monetary policy. Indeed, it is easy to see that this condition can occur at any level of the policy rate, since it is the expectation of future rates that counts:

Uncertainty as to the future course of the rate of interest⁵ is the sole intelligible explanation of the type of liquidity-preference L_2 which leads to the holding of cash M_2 . It follows that a given M_2 will not have a definite quantitative relation to a given rate of interest of r ;—what matters is not the *absolute* level of r but the degree of its divergence from what is considered a fairly *safe* level of r , having regard to those calculations of probability which are being relied on. Nevertheless, there are two reasons for expecting that, in any given state of expectation, a fall in r will be associated with an increase in M_2 . In the first place, if the general view as to what is a safe level of r is unchanged, every fall in r reduces the market rate relatively to the “safe” rate and therefore increases the risk of illiquidity; and, in the second place, every fall in r reduces the current earnings from illiquidity, which are available as a sort of insurance premium to offset the risk of loss on capital account, by an amount equal to the difference between the *squares* of the old rate of interest and the new. For example, if the rate of interest on a long-term debt is 4 per cent, it is preferable to sacrifice liquidity unless on a balance of probabilities it is feared that the long-term rate of interest may rise faster than by 4 per cent of itself per annum, i.e. by an amount greater than 0.16 per cent per annum. If, however, the rate of interest is already as low as 2 per cent, the running yield will only offset a rise in it of as little as 0.04 per cent per annum. This, indeed, is perhaps the chief obstacle to a fall in the rate of interest to a very low level. Unless reasons are believed to exist why future

experience will be very different from past experience, a long-term rate of interest of (say) 2 per cent leaves more to fear than to hope, and offers, at the same time, a running yield which is only sufficient to offset a very small measure of fear.⁶ (Keynes 1973 [1936], 201–2)

As a result, Keynes notes,

there is the possibility . . . that, after the rate of interest has fallen to a certain level, liquidity-preference may become virtually absolute in the sense that almost everyone prefers cash to holding a debt which yields so low a rate of interest. In this event the monetary authority would have lost effective control over the rate of interest. (207)

And Keynes goes on to say, in obvious reference to his position in the *Treatise*, that

owing to the unwillingness of most monetary authorities to deal boldly in debts of long term, there has not been much opportunity for a test. Moreover, if such a situation were to arise, it would mean that the public authority itself could borrow through the banking system on an unlimited scale at a nominal rate of interest. (207)

Thus, Keynes’s justification for moving out the yield curve was meant to manage market expectations of future interest rates. Indeed, the Fed’s use of market “guidance” was precisely the kind of policy that Keynes would have supported in these conditions:

Thus a monetary policy which strikes public opinion as being experimental in character or easily liable to change may fail in its objective of greatly reducing the long-term rate of interest, because M_2 may tend to increase almost without limit in response to a reduction of r below a certain figure. The same policy, on the other hand, may prove easily successful if it appeals to public opinion as being reasonable and practicable and in the public interest, rooted in strong conviction, and promoted by an authority unlikely to be superseded. (203)

This is an authority normally vested in the central bank.

However, Keynes would have gone about the implementation of QE in a much different way. Instead of announcing a given amount of purchases of particular securities and a target for the size of the central bank's balance sheet,⁷ he would have set the bid and ask rate and let the market decide the amounts it wanted to transact. This would have given information on the state of market expectations if there were two-way trades. Indeed, Keynes proposes such a mechanism in a little-noticed passage of the *General Theory* dealing with liquidity preference: "Perhaps a complex offer by the central bank to buy and sell at stated prices gilt-edged bonds of all maturities, in place of the single bank rate for short-term bills, is the most important practical improvement which can be made in the technique of monetary management" (206).

Keynes's understanding of liquidity preference provides an alternative explanation of the role of negative interest rates and of his fascination with measures such as Silvio Gesell's stamped money. Many critics of ZIRP have argued that the inability to use negative rates is not due to any absolute ZLB, but simply to the unwillingness of central banks to reduce rates below zero. But, historically, negative rates have been applied: for example, in Germany's Bardepot policy and the current policy for the European Central Bank's deposit facility. In Keynes's approach, all that would be required to offset the impact of the liquidity trap would be to set the negative interest rate at a value such that it was greater than the loss in capital value associated with holding securities, for then money would provide no protection against capital loss due to the expected rise in rates.

By the time of the *General Theory*, Keynes had departed from his *Treatise* view:

Only experience, however, can show how far management of the rate of interest is capable of continuously stimulating the appropriate volume of investment. For my own part I am now somewhat sceptical of the success of a merely monetary policy directed towards influencing the rate of interest. I expect to see the State, which is in a position to calculate the marginal efficiency of capital-goods on long views and on the basis of the general social advantage, taking an ever greater responsibility for directly organising investment; since it seems likely that the fluctuations in the market estimation of the marginal efficiency of different types of capital . . . will be too great to be offset by any practicable changes in the rate of interest. (164)

The obstacle to curing the Great Recession with monetary policy is not the ZLB, it is the absence of policies to raise the marginal efficiency of capital; or, in the traditional view as espoused by F. A. Hayek, who considered the variability in the real rate rather than inappropriate monetary policy to be the cause of disequilibrium,⁸ to raise the real rate. Both Keynes and Hayek could agree that monetary policy was not capable of doing this. They did not agree, however, on the policies that would produce the required change in the real rate or the marginal efficiency of capital. And this division is reflected in the difference between European and US policy: the former following Hayek in vain pursuit of raising saving through austerity, and the United States, at least after the crisis, in implementing fiscal stimulus.

Keynes's approach also provides some insight into the return to "conventional" policy when he reminds us that

it might be more accurate, perhaps, to say that the rate of interest is a highly conventional, rather than a highly psychological, phenomenon. For its actual value is largely governed by the prevailing view as to what its value is expected to be. *Any* level of interest which is accepted with sufficient conviction as *likely* to be durable *will* be durable. (203)

Eventually, interest rates will have to rise, and this will lead to the capital losses that the public and the banks have been trying to avoid by holding liquid assets but will accrue to the central bank. As Richard Kahn (1972) notes, the prices of securities must be

such as to secure a home for all of them with the public, apart from what the banking system looks after itself. That is the essence of the Keynes liquidity preference theory of the rate of interest, the supply and demand for money being the obverse of the supply of securities in the hands of the public and the demand for securities by the public. (80)

If the new rate structure, accompanied by market guidance, is accepted as durable, then the public and the banking system will again be willing to hold these assets of longer duration in their own portfolios. The search for the most profitable risk-adjusted returns by the banks and the public will provide for the reduction of the central bank's balance sheet.

Notes

1. “Let me end my talk by abusing slightly my status as an official representative of the Federal Reserve. I would like to say to Milton and Anna: Regarding the Great Depression. You’re right, we did it. We’re very sorry. But thanks to you, we won’t do it again” (Bernanke 2002).
2. It is interesting to track the evolution of Keynes’s ideas between 1930 and 1931: his belief in the efficacy of monetary policy to deal with the Depression waned as conditions continued to worsen. See Keynes’s 1930 article in *The Nation* (1930b) and his lectures given at the New School (Kent 2004) and the Harris Foundation (1931). In the 1931 Halley Stewart lecture, Keynes states,

I am not confident, however, that on this occasion the cheap money phase will be sufficient by itself to bring about an adequate recovery of new investment. Cheap money means that the riskless, or supposedly riskless, rate of interest will be low. But actual enterprise always involves some degree of risk. It may still be the case that the lender, with his confidence shattered by his experiences, will continue to ask for new enterprise rates of interest which the borrower cannot expect to earn. (Keynes 1982 [1932], 60)

3. Is it any surprise that the “recovery” from the crisis has primarily benefited the top 1 percent of income earners (see Tcherneva 2014) when the majority of the incomes in this cohort are composed of stock options and capital gains (Lazonick 2013)?
4. “I am now no longer of the opinion that the concept of a ‘natural’ rate of interest, which previously seemed to me a most promising idea, has anything very useful or significant to contribute to our analysis” (Keynes 1973 [1936], 243).
5. Richard Kahn notes the crucial importance for understanding liquidity preference of the difference between this emphasis on expectations of changes in the long rate and the mainstream idea that long rates are determined by expected short rates (Kahn 1972).
6. As noted elsewhere (Kregel 1998), Keynes’s “square rule” is formally equivalent to “duration,” which measures the price response of an asset with respect to a change in interest rate and thus presents a more general measure of the risk of illiquidity.

7. In the contemporary implementation of QE, we see once again the vestiges of money supply management at work.
8. “The situation in which the money rate of interest is below the natural rate need not, by any means, originate in a *deliberate lowering* of the rate of interest by the banks. The same effect can be obviously produced by an improvement in the expectations of profit or by a diminution in the rate of saving, which may drive the ‘natural rate’ (at which the demand for and the supply of savings are equal) above its previous level” (Hayek 1933, 147).

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