



A Post-Crisis Reading of the ‘Role of Monetary Policy’

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Abstract

In 1967 Milton Friedman delivered “The Role of Monetary Policy” as his presidential address to the American Economic Association (AEA). In its published version – Friedman (1968) – it has become, arguably, the most influential paper in modern monetary economics and was recently included in the AEA’s list of the twenty most influential papers published in the first century of the American Economic Review. But the influence of Friedman’s address is based on an interpretation that seriously distorts the content of his main argument. His emphasis on (i) the inadequacy of interest rate policy and (ii) the primacy of financial stability among the positive goals of monetary policy have been ignored or neglected. While balance sheet policies have become ‘unconventional’ in the modern consensus, these policies held a central position in Friedman’s work. I support this argument with a textual analysis of Friedman’s address, read in the light of his preceding scholarship on monetary policy. This reinterpretation is relevant in a world where the balance sheets of central banks have returned to centre stage as has the priority for financial stability.

Key words: Milton Friedman, monetary policy, interest rate policy, balance sheet policies, financial stability

JEL codes: B22, E52, E58

1 Introduction

It is twenty years since the first time I read Milton Friedman’s presidential address to the American Economic Association (AEA), and at a conservative estimate, I must have read it at least another twenty times since. That I have read and taught from that paper so often over a long period is one way to measure my admiration for one of the most important papers in monetary economics. Others have found the same; both supporters and opponents acknowledge the importance of Friedman’s address for monetary economics in particular and for macroeconomics more generally. Two subsequent Presidents of the AEA, James

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Tobin (1972) and Franco Modigliani (1977) used their own presidential addresses to respond directly to Friedman's address and to criticise it. Elsewhere Tobin (1995: 40), despite his rejection of Friedman's arguments, acknowledged that Friedman's address was "... very likely the most influential article ever published in an economics journal". More recently a distinguished committee of the American Economic Association included Friedman's address on its list of the twenty most important papers in the first century of the *American Economic Review* (Arrow et al. 2011).

My contention is that Friedman's presidential address is influential despite being widely misunderstood: the standard interpretation of his address exaggerates topics that were relatively less important to Friedman, to the neglect of his core message. I build this case on a critical reading of Friedman's address, together with an interpretation thereof in light of his published work on monetary policy from 1948 to 1972. An interpretation of Friedman's address emerges from this effort that is not only at odds with the standard interpretation, but is also of contemporary interest where the debate on the appropriate goals, instruments and institutional arrangements for monetary policy in the post-financial crisis world is concerned.

2 The standard interpretation

By virtue of its extraordinary influence, it is no small task to identify a 'standard interpretation' of Friedman's presidential address. To guard against the risk of building a straw man, I distilled the standard interpretation from three sources: James Tobin (1995) (perhaps the most consistent among Friedman's eminent critics), Snowden and Vane's (2005) review of modern macroeconomics, and the commendation of the AEA's committee on the *American Economic Review's* first century.

That Friedman (and Edmund Phelps) provided the intellectual foundation for the modern understanding of the Phillips curve is common to most accounts of Friedman's presidential address. For this they are given a prominent place in providing the intellectual foundation for the modern consensus that low and stable inflation is an appropriate target for monetary policy. The AEA's commendation for Friedman's address reads as follows:

This presidential address is the origin of the 'vertical long-run Phillips curve,' along with a contemporary paper by Edmund S. Phelps. It introduced the idea of a 'natural' rate of unemployment as the only rate compatible with the sustained coincidence of actual and expected rates of inflation. This is the basis of the conclusion that the Phillips curve is vertical in the long run, allowing only a temporary trade-off between unemployment and inflation. From this followed possible implications for the conduct of macro-policy, especially monetary policy (Arrow et al. 2011: 3-4).

Tobin also focuses on the natural rate of unemployment around which Friedman's Phillips curve is built and sees this as the "opening shot of new classical macroeconomics", with the message that "unanticipated monetary policy and

inflation can raise employment temporarily, but only temporarily and only by fooling workers and employers” (Tobin 1995: 33). Snowden and Vane’s (2005) review of Friedman’s presidential address, together with Phelps’ (1967; 1968) papers, opened a new chapter in the development of monetarist theory, with a sharper division between real and nominal variables. Monetary authorities could only lower unemployment below the natural rate of unemployment in the Friedman-Phelps view of the world when they succeeded in surprising private decision makers, especially workers, and over time this was only possible through accelerating inflation. Apart from the theoretical elegance of the argument, its success was assured by the dramatic corroboration – as Backhouse (1995) describes it – of their predictions enjoyed during the seventies.

This is the standard interpretation of Friedman’s presidential address: it provided, with Phelps (1968), the intellectual foundation for the modern understanding of the Phillips curve and justified the widely accepted focus on low and stable inflation as the appropriate goal for modern monetary policy. While Friedman lost the debate on the appropriate instrument of monetary policy in this reading, he won the debate on policy goals as well as on the need for a rule-like policy procedure by monetary authorities, a case that was greatly strengthened by the next generation of macroeconomists.

Friedman was undoubtedly happy with the success of his Philips-curve argument¹, but there is more to his address than this standard interpretation. The very success of Friedman’s case against the kind of macroeconomic fine-tuning associated with the Phillips curve obscured (i) his case against interest rate policies and in favour of central bank balance sheet policies and (ii) the priority he gave to financial stability as a goal for monetary policy. What is missing from the standard interpretation are not just aspects of Friedman’s argument: they were at the core of his work for twenty years leading up to his presidential address and are at the core of what he tried to argue in that famous text.

3 The structure of Friedman’s address

Friedman was a remarkably consistent scholar. He returned to the same themes and arguments repeatedly, approaching them now from a historical angle, then from a statistical angle and at other times as a theorist. His presidential address fits seamlessly into this body of work; indeed it is to a considerable extent a review of his scholarship for the twenty years since the forties. An audience in 1967 and familiar with his work would have heard him summarise the arguments they had heard many times, with only one real novelty, i.e. the Phillips curve argument, which has since come to dominate the paper’s professional legacy. While the Phillips curve argument was undoubtedly important to Friedman and the profession, it was not the dominant message of his address.

To see Friedman’s message it is useful to consider the structure of his address: it is only 17 journal pages long and, excluding the introduction and conclusion,

¹See his interview with Snowden and Vane (2005, especially pages 204 and 205) and his Nobel acceptance lecture (Friedman 1977).

comprises three sections: the first section is on what monetary policy cannot do, the second on what monetary policy can do and the third on how monetary policy should be conducted in the light of what it can and cannot do.

3.1 What monetary policy cannot do

The first, and longest, section of Friedman’s address is subdivided into two sections, the first of which is devoted to a rejection of interest rate policy as an adequate monetary policy instrument. He then extended his interest rate argument by analogy to include the rate of unemployment in the second subdivision of this first part of the lecture.

Friedman opened his address with a rejection of a particular view of monetary policy against which he had argued consistently for twenty years, a view he associated with John Maynard Keynes and which he regarded as both theoretically flawed and inconsistent with economic history. It was no coincidence that Friedman opened with the interest rate argument; it is here where he parts company with his Keynesian opponents and even his mentor at Chicago, Henry Simons. For the author of the ‘Essay on Positive Economics’ (Friedman 1994 [1953]), the empirical success of his alternative account was decisive. He sincerely believed that on this point the difference between himself, on the one hand, and Henry Simons and Keynes, on the other, was due to a “few facts, which we now know and he [Simons] did not . . . The facts have to do primarily with the Great Depression” (Friedman 1967: 4)².

His quarrel with Keynes and Simons turned on the adequacy of an interest rate as a sufficient monetary instrument and a sufficient barometer of the stance of monetary policy. Much of Friedman’s career was spent on what he regarded as the rehabilitation of monetary policy in an era when these policies were thought to have lost power, especially compared with alternatives such as fiscal policy. This entailed a shift in focus away from the policy interest rate and towards the balance sheet of the central bank; away from liquidity preference and the perception of powerless monetary policy and towards the quantity theory, with its powerful portfolio balance effects (Friedman 1964). These arguments were rooted in the reinterpretation he had given, with Anna Schwartz, of monetary policy’s role in the Great Depression, published in their *Monetary History of the United States* (Friedman and Schwartz 1963a).

Monetary policy failed during the Great Depression, argued Friedman and Schwarz, but how it failed mattered for a proper understanding of the policy’s potential. Economic policy can fail in two different ways (Friedman 1972). First, the policy might not have the effect we predicted from our theory and statistics and, second, the policy might be applied incorrectly. Friedman and

²Friedman explained his rejection of the Keynesian approach in empirical terms, for example: “I believe that Keynes’s theory is the right kind of theory in its simplicity, its concentration on a few key magnitudes, its potential fruitfulness. I have been led to reject it, not on these grounds, but because I believe that it has been contradicted by evidence: its predictions have not been confirmed by experience. This failure suggests that it has not isolated what are ‘really’ the key factors in short-run economic change” (Friedman 1970a: 134).

Schwartz argued that monetary policy had failed during the Great Depression, but only in the second sense, only through misapplication. By contrast Keynes, Simons, and many others interpreted these events as evidence that monetary policy failed through impotence. In their view the Great Depression occurred "... despite – not because of – governmental monetary policy ... [The Federal Reserve System] had done its best but was powerless to stop the collapse ...” (Friedman 1967: 6)

In their *Monetary history*, Friedman and Schwartz identified the Fed as an independent cause of the three banking crises from 1930 to 1933. By failing to use its balance sheet to prevent the contraction of the money supply in two of these, and actively tightening policy to protect the gold standard in the third, the Fed caused and amplified the collapse of the banks. In their interpretation the Fed fared even worse than the pre-Fed banking system had done in the face of banking crises through decentralised co-operation³ (Friedman and Schwartz 1963a: 311, 316, 328, 692).

Interest rate policy was central to the Fed’s mistaken application of monetary policy, or more specifically, the misapprehension that a short-run policy interest rate (the discount rate in that particular case) was an adequate indicator of the stance of monetary policy. Having reduced the discount rate, the Fed was persuaded that they had implemented a policy of ‘monetary ease’ for 1930. The unfolding financial market pressures that caused banks to suffer liquidity stress and then a banking panic made no impression on a Fed already convinced that they had done as much as they could. No liquidity support was offered to illiquid but solvent banks and the economy had to endure three waves of bank panics and the Great Depression⁴ (Friedman and Schwartz 1963a: 375). Elsewhere Friedman described this mistake as follows:

A constant absolute rate of interest, whether it be the yield on government securities or a discount rate, does not in any relevant sense mean a constant monetary policy. Failure to recognise this point, and a tendency to regard the absolute level of the discount rate – or its level relative to some earlier date – as a measure of ‘tightness’ or ‘ease’ has been perhaps the single most pervasive source of confusion and error in the System’s experience (Friedman 1959b: 66).

Having misunderstood the instruments of monetary policy and the information offered by other indicators of monetary conditions, the Fed misapplied the tools of monetary policy at just the point where Friedman was convinced the

³For example, the argued:

As it was, the existence of the Reserve System prevented concerted restriction, both directly and indirectly: directly by reducing the concern of stronger banks, which had in the past typically taken the lead in such a concerted move . . . , and indirectly by supporting the general assumption that such a move was made unnecessary by the establishment of the system (Friedman and Schwartz 1963a: 311).

⁴An important dimension of Friedman’s argument that monetary policy played an independent and unfortunate role in these bank failures was his evidence that bank failures were not correlated with weakness on bank balance sheets due to bad loans. In fact the pressure on bank balance sheets came from declining bond prices and this hit the prudent banks harder. Perversely, banks with larger portfolios of bad loans and fewer treasuries fared relatively better (Friedman 1970b: 7).

correct application would have averted the most severe outcomes of the Great Depression, or as he wrote with Schwartz in *Monetary History*:

The monetary collapse from 1929 to 1933 was not an inevitable consequence of what had gone before. It was the result of policies followed during those years ... Alternative policies that could have halted the monetary debacle were available throughout those years. Though the Reserve System proclaimed that it was following an easy money policy, in fact it followed an exceedingly tight policy (Friedman and Schwartz 1963a: 699).

In a somewhat autobiographical account Friedman later connected this interpretation with his intellectual roots as a student at Chicago where, during the 1930s, the intellectual climate was “wholly different” from that of the London School of Economics (where Austrian views dominated) and Cambridge (UK) where the Keynesian interpretation emerged (Friedman 1970a: 163). This “Chicago Tradition”, as Friedman called it, understood the Great Depression as the result of policy inaction, especially the lack of open market operations by the Federal Reserve⁵. So convinced was Friedman of the influence of, especially, Viner’s interpretation of the great Depression on his own intellectual development that he confessed to be embarrassed by his and Schwartz’s failure to recognise this intellectual debt more explicitly in their *Monetary History* (Friedman 1970a: 167).

Besides this historical argument, Friedman also had theoretical reasons for rejecting the interest rate as a sole monetary policy instrument. Here the issue turned on the relative merits of two frameworks for monetary analysis: the income and expenditure framework – which Friedman attributed to Keynes’ ‘General Theory of Employment Interest and Money’ (Keynes 1936) – on the one hand, and the quantity theoretic framework – consistent with the work of Keynes (1923) as a younger man, Irving Fisher and others – on the other. In the income-expenditure framework, business cycle fluctuations are fundamentally caused by non-monetary factors, with only a minor role for the interest rate via its impact on planned investment and consumption expenditure (Friedman 1952). Business sentiment, or ‘animal spirits’ to use a Keynesian phrase, was the primary cause of business cycles in this view, a view Friedman rejected on both theoretical and empirical grounds (Friedman 1967: 5).

Flows of current income dominate in the income-expenditure framework, and Friedman explicitly rejected what he considered to be the inadequate treatment of wealth and other balance sheet effects, drawing on his own theoretical work with respect to consumption and his restatement of the quantity theory as a monetary framework for understanding the business cycle (Friedman 1956; Friedman 1970c). That the income-expenditure framework failed to account for the general case with balance sheet effects has been known since Pigou (1943) identified the real-wealth effect (Snowdon and Vane 2005: 120). In the quantity-theoretic framework, balance sheet channels are important and anchor current

⁵The leading Chicago economists such as Jacob Viner, Frank Knight and Henry Simons signed a famous recommendation for open market operations by the Federal Reserve following Jacob Viner’s Harris Foundation lectures in 1932, and they were joined in this by non-Chicago economists such as Irving fisher and Alvin Hansen (Friedman 1970a: 164).

flows to portfolios of different assets and especially to the adjustment necessary to achieve desired portfolios (Friedman 1961: 462-463; Friedman and Schwartz 1963b: 60-61), or as he argued in an early paper:

A corollary for policy is that the effects of monetary policy may be expected to operate rather more than would otherwise be supposed through the direct effects of changes in the stock of money on spending, and rather less through the indirect effects on rates of interest, thence on investment, and thence on income (Friedman 1959a: 351).

In his presidential address, Friedman used the Wicksellian concept of a natural interest rate to anchor the expected returns on asset portfolios (Friedman 1968: 7). From Irving Fisher he borrowed the distinction between nominal and real interest rates to incorporate the effect of inflation expectations on the ability of a monetary authority to peg real interest rates indefinitely at particular levels. The overriding goal of this section in his presidential address was to demonstrate that interest rates were inadequate both as a barometer and as a tool of monetary policy. The close identification of monetary policy with interest rate policy in the modern tradition is precisely what Friedman wished to dispel with the opening argument of his presidential address and twenty years of prior work.

To emphasise this point, Friedman distinguished between monetary policy (i.e. the use of the central bank's balance sheet) and what he called credit policy (i.e. the use a short-term policy interest rate)⁶ (Friedman 1962; Friedman 1964). Elsewhere, he argued that prior to the Keynesian revolution, "... it was accepted that monetary policy should be operated largely through a combination of two blades of a scissors, the one blade being what we in the USA call 'discount rate' ... the other blade being open market operations, the purchase and sale of government securities" (Friedman 1970b: 3).

This distinction between interest rate and balance sheet policies has largely disappeared from the modern analysis of monetary policy, partly under the influence of William Poole's (1970) highly successful solution of the 'instrument problem' in monetary policy. Poole identified the structural conditions under which interest rate policy would be superior to balance sheet policies and, using an income and expenditure model where balance sheets are absent, he closed the case in favour of interest rate policy for a generation. But his income-expenditure model is precisely a theoretical framework that neglects balance sheets and asset markets and consequently does not address the instrument problem as Friedman saw it.

Following his rejection of the interest rate as an adequate barometer or tool of monetary policy, Friedman presented the now famous Phillips curve argument as an analogue to his interest rate argument. He introduced a Wicksellian "natural" rate of unemployment and the distinction between real and nominal wages

⁶ "By monetary policy, I mean changes in the quantity of money, holding government spending and taxing constant" said Friedman (1970b: 8) in a later paper to clarify this point. For Friedman the Keynesian emphasis on interest rates was, like the real bills doctrine of the 19th century, yet another rationalisation for central bankers to neglect monetary policy, i.e. their balance sheets (Friedman 1964).

to mirror the argument he had made previously with respect to the interest rate. Though this was not the core of Friedman's message, he was later pleased to have won a scientific debate on the nature of the Phillips curve (Friedman 1977). This does not mean that the Phillips curve was the core message of the presidential address though. On the contrary, when an opportunity arose in 1970 to summarise the main points of his work in monetary economics, (Friedman 1970b), he did not so much as mention the Phillips curve.

3.2 What monetary policy can do

Having dismissed both interest rates and the unemployment rate as proper targets for monetary policy, Friedman turned to his case for the positive role of monetary policy in the second section of his presidential address. Friedman had long since argued that there was a positive role for a monetary authority to offer "... effective insurance against major monetary disturbances" (Friedman 1959b: 99), or to "... prevent money itself from being a major source of economic disturbance", as he expressed the idea in the presidential address (Friedman 1968: 12). The primary aspect of this task is concerned with financial stability, i.e. effective insurance against the adverse externality of a crisis in the fragile financial sector. Indeed, in Friedman's (1959b: 9, 37) view this was a major reason for having a monetary authority at all, and he believed that this was the view of the founders of the Federal Reserve System as well (Friedman and Schwartz 1963a: 692).

Friedman's priority for financial stability reflects the importance of the lesson he was convinced he had learnt from studying the Great Depression, i.e. that misguided monetary policy had failed in its primary duty when it was most urgently needed. Keynes and others, who had collectively undermined the case for a monetary theory of the business cycle, compounded this error, so Friedman argued, by the incorrect interpretation of these events.

Friedman had spent enormous energy to rebuild the theoretical case and empirical evidence in favour of a monetary theory of the business cycle (e.g. Friedman and Schwartz 1963b). When monetary policy is conducted in such a manner as to avoid "money itself from becoming a disturbance", Friedman argued, it would go a long way towards stabilising the business cycle as well. This brings us to the second positive task for monetary policy as Friedman saw it, namely to "provide a stable background for the economy" (Friedman 1968: 13).

In a modern fiat money economy, this is a positive task for the monetary authority, to which end they must exercise their powers deliberately (Friedman 1968: 13). By contrast, the gold standard offered a stable background for the economy more or less automatically in an earlier period. Having rejected the possibility of a return to the gold standard earlier in his career (Friedman 1951), he turned to the question of how monetary policy could be conducted deliberately to achieve an adequately stable monetary environment.

The priority for low and stable inflation in the long run, which has also become a derivative of Friedman's Phillips curve argument, is a secondary result

of his emphasis on a monetary framework that delivers a stable background for the economy. If monetary disturbances are an independent causal factor in the business cycle and if inflation is caused by excess money growth, then the same policy that ameliorates the monetary causes of the business cycle will also deliver low and stable inflation.

The final positive task for monetary policy, and it was a modest one in Friedman's assessment, was to offset major non-monetary disturbances to the economy. These disturbances might be external to the economy, or from fiscal policy, and in some cases there might be a modest role for monetary policy to provide an offsetting balance.

3.3 How monetary policy should be conducted

In the final section of his presidential, Friedman discussed two principles to guide the conduct of monetary policy, i.e., that the authorities should be guided by magnitudes they can control, and that they should avoid sharp swings in policy. With these principles to guide him, Friedman considered three candidate magnitudes according to which the Fed might direct monetary policy; they were the exchange rate, the price level and the quantity of money. In this part of the lecture, he is again covering ground he had covered many times in the previous twenty years, and he summarises results he had long since developed: that the exchange rate was ill-suited for an economy with the structure of the USA (Friedman 1951) and that the price level was a desirable, but inappropriate target because the central bank could not control it directly (Friedman 1968: 15).

Friedman's case against a price-level target extended his now famous expression that the monetary transmission mechanism works with a "lag that is both long and variable" (Friedman 1961: 447). By contrast, the money supply was both desirable and would be under the control of the central bank if the necessary institutional reforms were carried out, including the institution of a 100% reserve ratio on deposits. This reform had been on Friedman's platform at least since 1948 (e.g. Friedman 1948: 247), and he attributed it to his mentor Henry Simons (e.g. Simons 1936: 17).

Earlier in his career, e.g. Friedman (1948: 250-252), he favoured a fiscal basis for the annual expansion of the central bank's balance sheet. This reflected his view that the central bank's balance sheet policy and the financial policy of the fiscal authorities overlapped significantly, e.g. Friedman (1959b: 56), and could not be conducted independently in any meaningful sense (Friedman 1963). He later favoured a simpler rule whereby the central bank would expand its balance sheet by a fixed percentage every year and the fiscal authorities would have to align their financial policy with the parameters set by the monetary authorities.

Friedman's money growth rule was intended to achieve the following objectives: first, and foremost, to prevent a tightening of monetary conditions and a contraction of the money stock in the face of financial distress; second, to mitigate the monetary causes of the business cycle and to remove the source of inflation. While Friedman did not expect this policy to remove all causes of the

business cycle, nor to prevent the intermittent emergence of financial fragility, he did believe that it would go a long way to preventing financial collapse and to mitigating the business cycle to the extent that it was possible given the instruments of monetary policy. As he had argued elsewhere, "... the major argument for the [money growth] rule has always seemed to me to be far less that it would moderate minor cyclical fluctuations than that it would render impossible the major mistakes in monetary policy that have from time to time had such devastating effects" (Friedman 1966: 84).

4 Lessons for contemporary monetary policy

Milton Friedman's presidential address followed more than twenty years of remarkably consistent scholarship, during which he revived a monetary theory of the business cycle and showed the tremendous power monetary policy had to prevent financial collapse. As with so many other economists of his generation, the Great Depression left an indelible mark on his economics; but he learnt nearly the opposite lesson from those such as Keynes, for whom the salient lesson of the unhappy thirties was that monetary policy had but little power to restore an economy to robust growth during a severe slump. For Friedman the lesson was that monetary policy was itself the major cause of the slump, through the neglect of monetary conditions beyond the narrow confines of interest rate policy. These are Friedman's major lessons: that monetary policy matters, that it matters for financial stability, that financial stability matters for economic prosperity and that the transmission of monetary policy occurs chiefly through what we now call balance sheet channels, rather than through expenditure channels.

These lessons are prescient in the wake of the international financial crisis, since balance sheet policies have re-emerged from forty years of neglect and financial stability has returned to the top of the monetary policy agenda. Some of the world's leading central banks have also encountered the limits of interest rate policy (Woodford 2012) and have realised that there is no equivalence between interest rate policies and balance sheet policies (Borio and Disyatat 2009). These two dimensions of monetary policy might well be used to pursue different, though complementary, goals. The return of explicit balance sheet policies has also opened a new debate on the meaning and desirability of central bank independence (Goodhart 2011), and this remains a largely unresolved question at the time of writing.

Finally, it is remarkable that these lessons can be traced to one of the most widely known and influential papers in modern macroeconomics. Despite its renown the major lessons of this paper had largely been forgotten prior to the crisis. In the light of the crisis and the challenges facing central banks with respect to goals, instruments and the appropriate degree of central bank independence, a revisionist reading that places Friedman's presidential address in the context of his own scholarship may be in order.

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