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Milton Friedman: Constructing an Anti-Keynes¹

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ABSTRACT

The paper considers Keynes's major contributions before *The General Theory*, namely *A Tract on Monetary Reform* and *A Treatise on Money*, and shows that they were close to the views which Friedman would later develop. However, *The General Theory of Employment, Interest and Money* represented a major challenge to the orthodoxy of the time, and it was to this that Friedman radically objected. We identify the main areas in which Keynes departed from the mainstream theory of the time, and show how Friedman attempted to undermine each of Keynes's major contributions and the extent to which he was successful. Friedman regarded Keynes's contributions as detrimental to, and a definitive step backward for, the economics profession.

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1 Introduction

Deciphering the motivations of any individual is never an easy task. Economists provide no exception to this rule. However, in the case of Milton Friedman, it is fairly clear, both by deed and speech, that he deliberately wished to remove, line by line, the principal propositions of Keynes's system as initially structured in *The General Theory* (1936). Friedman's effective strategy was to discredit Keynes's theoretical system and, by doing so, remove the rationale for policy proposals flowing from Keynes's theory. This sentiment reveals itself most clearly in private correspondence. Like his one-time teacher, Frank Knight, Friedman regarded Keynes's contributions as detrimental to, and a definitive step backward for, the economics profession. The inherent threat though extended beyond the boundaries defined by economics per se. For Friedman, Keynes inadvertently paved the way for an economic and political system based on planning and collective, rather than individual choice. Consequently Keynes' theory paralleled a Soviet style, 'Road to Serfdom', that needed to be resisted at all cost. The solution to the dangers posed by Keynes was a counter-revolution, a direct refutation of the postwar mainstream wisdom. Paralleling the Soviets, Friedman would have gladly erased any substantial vestige of Keynes from current and historical memory.

¹ The idea that Friedman had an explicit anti-Keynesian agenda in his work was analysed in detail in Hahn (1971)

I congratulate you on restraining yourself from including a picture of Keynes, and even more on not even having a mention of him in your index (Correspondence from Milton Friedman to George Stigler, 16 December 1986 on the publication of Stigler's fourth edition of *The Theory of Price*)².

Friedman's campaign extended also to Keynes's theoretical rationale behind the Bretton Woods institutions. (Of course, Keynes's proposals were far from fully reflected in the actual set up and subsequent performance of the Bretton Woods institutions³.) Every theory is held together by a set of key assumptions. Demolition of Keynes' system required Friedman to target a set of principal planks that formed the fundamental supports of the theory. To accomplish his desired result Friedman targeted Keynes' understanding of consumption, money (including interest rate and investment determination), employment and the general price level. This chapter argues that not only does this focus on Keynes provide a possible explanation of Friedman's motivation, but also that persuasive evidence makes it a plausible one⁴.

For Friedman, as for his close friends and associates, George Stigler and Aaron Director, more was at stake than mere academic issues or even narrow policy concerns. Friedman saw himself as defending a version of classical liberalism, the thin blue line standing between individual freedom and the rising tide of collectivism, implicitly espoused by the dominant Keynesianism of the post-war era. In his understanding, what stood at risk was individual liberty.

Like most good Chicagoans during the thirties, Friedman had resisted the Keynesian revolution. However, despite his professed repugnance, it was unlikely that he would be left completely untouched by these arguments which composed the very air that he breathed at that time. As he himself said

² Private correspondence between Milton Friedman and George Stigler quoted in this paper can be found in the George Stigler Archive, Special Collections, Regenstein Library, University of Chicago.

³ The difference between Keynes's prescriptions and the actual outcome is discussed in Harcourt and Turnell 2005; Harcourt 2012.

⁴ This is certainly what his beloved University of Chicago seemed to believe. As summed up in an official obituary noting his death:

He was a leading opponent of John Maynard Keynes (1883-1946), whose interventionist theory contended that the government should be heavily involved in managing national economies. Friedman maintained that the economy functions best when people have opportunities to make free choices unfettered by government regulations (The University of Chicago News Office, November 16, 2006, <http://www-news.uchicago.edu/releases/06/061116.friedman.shtml>).

“Until I reread my statement to Congress [on the size of the increase in taxation needed to prevent inflation] I had completely forgotten how thoroughly Keynesian I then was. I was apparently cured, or some would say corrupted, shortly after the end of the war.” (Friedman, Milton and Rose Friedman 1988: 113).

Friedman returned to Chicago in 1946, with an ideological blueprint mapping a defined strategy to impede and reverse any shift to Keynesianism that might appear within the Faculty. This objective would entail shaping some appropriate cudgels with which to discredit unsound Faculty appointments, as well as any insidious encroachments from the Cowles Commission. The subsequent ideological gilding was noticed by to Jacob Viner, hardly a convert to Keynesian positions or a supporter of the latest fads, upon a return visit in 1951.

It was not until after I left Chicago in 1946 that I began to hear rumors about a ‘Chicago School’ which was engaged in organized battle for *laissez faire* and “quantity theory of money’ against ‘imperfect competition’ theorizing and ‘Keynesianism’. I remained sceptical about this until I attended a conference sponsored by University of Chicago professors in 1951. The invited participants were a varied lot of academics, bureaucrats, businessmen, etc., but the program for discussion, the selection of chairmen, and everything about the participants were so patently rigidly structured, so loaded, that I got more amusement from the conference than from any other I ever attended. Even the source of the financing of the Conference, as I found out later, was ideologically loaded (Jacob Viner quoted in Patinkin 2003b:112).

But to understand the full extent of the dynamics in part driving Friedman, the disparity in the concept of classical liberalism as understood by these two dominant economists is key. Robert Skidelsky aptly categorised Keynes as being “the last of the great English Liberals”, (Skidelsky 1992: xv.). Friedman, of course, maintained his identity as a classical liberal as a core component of his public persona, influence, as were many other American liberals, by

the thoughts of Edmund Burke and Alexis de Tocqueville. Keynes was similarly influenced by Burke, even though Burke politically was a Tory⁵.

However, Friedman and Keynes had distinctly different conceptions of what it meant to be a liberal. To quote Friedman:

“As liberals we take freedom of the individual, or perhaps the family, as our ultimate goal in judging social arrangements. Freedom as a value in this sense has to do with the interrelations among people; It has no meaning whatsoever to Robinson Crusoe on an isolated island (without his Man Friday). Robinson Crusoe on his island is subject to ‘constraints’, he has a limited number of alternatives, but there is no problem of freedom in the sense that is relevant to our discussion.” (2002: 12)

In contrast, Keynes took issue with such a fundamentalist position:

“In my opinion there is now no place, except in the left wing of the Conservative Party, for those whose hearts are set on old-fashioned individualism and laissez-faire in all their rigour—greatly though these contributed to the success of the nineteenth century. I say this, not because I think that these doctrines were wrong in the conditions which gave birth to them ... but because they have ceased to be applicable to modern conditions. Our [the Liberal Party’s] programme must deal not with the historic issues of Liberalism, but with those matters—whether or not they have already become party questions—which are of living interest and urgent importance to-day.” (1925: 300-301)

Keynes clearly considered economic and political issues to be inextricably intertwined. For his part, Friedman failed to make such a connection publicly explicit. However, at the end of his preface to the 2002 edition of *Capitalism and Freedom*, he moved one small step towards this in his admission that “the one major defect in the book seems to me an inadequate

⁵ In certain key aspects, Keynes was much closer to the classical liberal economists, and to his teacher Alfred Marshall, than Friedman. Keynes was not doctrinaire, so that, in the same spirit that enlivened John Stuart Mill, he was open to alternative views. In fact, he cultivated a notorious reputation for changing his mind. ‘When someone persuades me that I am wrong, I change my mind. What do you do?’ (This statement is widely attributed to Keynes though the exact reference is disputed. Biographers such as Skidelsky and Moggridge have both been unable to locate it. Keynes did write, ‘Yet the orientation of my mind is changed; and I share this change of mind with many others’ (Keynes 1933:755)). Friedman and his allies at Chicago were not given to changing positions, perhaps adopting this approach as something of a tactical marketing strategy. As Samuelson put it

‘I think Milton quietly changed, he just quietly dropped that [100% reverse ratio in banking]. He doesn’t particularly announce changes in positions, but instead, lets them just decay away’ (Conversation between Craig Freedman and Paul Samuelson, November 1997).

treatment of the role of political freedom, which under some circumstances promotes economic and civil freedom, and in others inhibits economic and civil freedom” (ix-x).

Section 2 of the paper considers Keynes’s major contributions before *The General Theory*, namely *A Tract on Monetary Reform* and *A Treatise on Money*, and shows that they were close to the views which Friedman would later develop. However, *The General Theory of Employment, Interest and Money* represented a major challenge to the orthodoxy of the time, and it was to this that Friedman radically objected. In section 3 we identify the main areas in which Keynes departed from the mainstream theory of the time. The rest of the chapter shows how Friedman attempted to undermine each of Keynes’s major contributions and the extent to which he was successful.

2 Keynes as a Minor Quantity Theorist

The problem for Friedman was to establish a plausible linkage with pre-Keynesian orthodoxy. The solution to this problem was found along two lines. The first was the invention of a University of Chicago oral tradition that was alleged to have preserved understanding of the fundamental truth among a small band of the initiated through the dark years of the Keynesian despotism. The second was a careful combing of the *obiter dicta* of the great neo-classical quantity theorists for any bits of evidence that showed recognition (or could be interpreted to show recognition) of the fact that the decision to hold money involves a choice between holding money and holding wealth in other forms, and is conditioned by the rates of return available on other assets (Johnson 2003:170).

It is no accident that Friedman most admired and found himself in agreement with the analysis found in *A Tract on Monetary Reform* (1923). He thought it was Keynes’s best book.

The major points which Milton made is that there is nothing particularly Keynesian about the liquidity preference function, and that the demand for money sections of the *General Theory* are simply a slightly inferior version of Keynes’s views in the *Tract* (Stanley Fisher quoted in Leeson 2003c:512).

In *A Tract on Monetary Reform*, Keynes had, in effect, scorned anyone who did not accept the quantity theory of money. “This theory is fundamental. Its correspondence with fact is not open to question” (Keynes 1923, *C.W.*, IV, 1971, 61). Nonbelievers were by definition fools, if not knaves. The structure of the analysis appearing in the book was the Cambridge,

especially Marshallian, version of the quantity theory with some subtle modifications made by Keynes⁶. Keynes identified the two evils of deflation and inflation and argued that the social consequences of deflation were worse than those of inflation. (Hyper-inflation, by exhibiting the negative consequences of both and some specifically of its own making, remained the exception. It reflected the worst of both worlds⁷.)

Keynes's main policy suggestions flowing from *A Tract on Monetary Reform* were directed to securing a stable internal general price level through the operation of monetary policy, mainly through control of the money supply by the central authorities. From the perspective of the post-war years, employing *The General Theory* as an appropriate guide, Keynes valued (at least in embryonic form) achieving an internal balance above that attached to a corresponding external result. In essence, Keynes considered any complex concerns associated with international trade, capital flows and the exchange rate as being subservient to the goal of achieving stability of the general domestic price level.

Our conclusions up to this point are, therefore, that, when stability of the internal price level and stability of the external exchanges are incompatible, the former is generally preferable; and that on occasions when the dilemma is acute, the preservation of the former at the expense of the latter is, fortunately perhaps, the line of least resistance (Keynes 1923: 132).

A major reason for this aim, which would certainly have appealed to Friedman, was that a stable and constant internal price level would better allow the relative price system to achieve its fundamental allocative role without needing to read its signals through the obscuring camouflage of an overall price level given to continuous change. In addition, this approach avoided arbitrary and damaging redistributions between creditors and debtors with regard to both income and wealth. Keynes analysed these effects with both insight and persuasive conviction in a manner sympathetic to the approach later pioneered by Friedman⁸.

⁶ As David Laidler has often reminded us, it was a theory of the determination of the general price level, which included a theory of the demand for money and of the stability or instability of this relationship – see, for example, Laidler 2013: 23.

⁷ “Thus inflation is unjust and deflation is expedient... deflation is, if we rule out exaggerated inflations such as that of Germany, the worse; because it is worse, in an impoverished world, to provoke unemployment than to disappoint the *rentier*”. Keynes 1923; IV, 1971: 36, emphasis in the original.

⁸ The jewel in that book's crown was Chapter 3, “The theory of money and the exchanges”, possibly the greatest sustained theoretical effort ever undertaken on one topic by Keynes. It was to be the basis of some of the most important planks of the theoretical structure of *The General Theory*.

Keynes at that stage was a supporter of free trade and of competitive markets generally. His greatest departure from Marshall was a shift in emphasis from the long-period position of Book V of Marshall's *Principles* (also a favourite of Friedman's)⁹ to a much greater emphasis on short-run changes in the processes at work in the economy. His focus concentrated on those policies that could tackle malfunctions associated with such processes. This is confirmed most strikingly in the paragraph containing Keynes best-known aphorism: "*In the long run we are all dead*", Keynes 1923, IV, 1971: 65, emphasis in the original. As is now well known (or, rather, should be well known) he immediately added: "Economists set themselves too easy, too useless a task if in tempestuous seasons they can only tell us that when the storm is long past the ocean is flat again" (65). In Keynes's analysis and interpretation there is as yet no systematic realisation that at least in the long run the natural resting place of a competitive economy could be other than one of full employment, consistent with what Friedman would later identify as the natural rate of unemployment¹⁰:

Thanks to Wicksell, we are all acquainted with the concept of a "natural" rate of interest and the possibility of a discrepancy between the "natural" and the "market" rate. This analysis has its close counterpart in the employment market. At any moment of time, there is some level of unemployment which has the property that it is consistent with equilibrium in the structure of real wage rates. A lower level of unemployment is an indication that there is an excess demand for labor that will produce upward pressure on real wage rates. A higher level of unemployment is an indication that there is an excess supply of labor that will produce downward pressure on real wage rates. The "natural rate of unemployment," in other words, is the level that would be ground out by the Walrasian system of general equilibrium equations, provided there is imbedded in them the actual structural characteristics of the labor and commodity markets, including market imperfections, stochastic variability in demands and

⁹Friedman, as well as Stigler, insisted that they were keeping the Marshallian flame alight when it had been all but extinguished elsewhere, especially at its birthplace in Cambridge. But whether Friedman actually belonged, in D.H. Robertson's terminology, to the group of 'loyal but faithless Marshallians' is another matter.

¹⁰Unlike his compatriot, Stigler, Friedman showed little interest in the field of History of Thought. Studies of this type remained a somewhat harmless past time for otherwise unengaged economists.

We are now in, what I would say is, a relatively flat period of additions to the structure. So today, you either have to be an extraordinarily good mathematician, or else there is nothing else for you to do but the history of economic thought. I'm saying that there is sort of a balance wheel here. If there are exciting things being done in a theory, an interesting and exciting thing to do with the structure of the body of economics, that's what will attract the top young economists. They'll be drawn away from the history of economic thought or similar such fields (Conversation between Milton Friedman and Craig Freedman, August 1997).

Nonetheless, Friedman displayed a tendency of legitimising his own work by grounding it in the terminology employed by classical political economy, especially that which can be found in Adam Smith or which is analogous to Wicksell's use of the natural rate of interest. He would also scavenge the classical literature to indicate, however tenuously, that grounding a demand for money function in the quantity of money remained consistent with thoughts expressed in this older scholarship. (See Friedman 1956.)

supplies, the cost of gathering information about job vacancies and labor availabilities, the costs of mobility, and so on. (Friedman 1968:7-8)

Keynes's analysis in *A Tract on Monetary Reform* was entirely consistent with Marshall's approach, even if he parted company with his old teacher in matters concerning details and emphasis. This too would have appealed to Friedman who was a self-confirmed Marshallian (witness his praise (1996) for Peter Groenewegen's majestic biography of Marshall (1995)) in his approach to economic analysis¹¹

Keynes's main policy proposals in *A Tract on Monetary Reform* would generally have been agreeable to Friedman, namely, the use of Central Bank measures to achieve a stable general price level (See especially Keynes 1923 chapter 5). However, while Keynes argued that the central bank should follow a Friedman-type rule with respect to the money supply his was a more flexible rule than Friedman could conscientiously accept. For him, the mere possibility of politicians or bureaucrats influencing the outcome would render such a strategy automatically suspect. The only effective method to thwart narrowly self-interested policies was to remove the temptation to engage in such meddling. Throughout his professional career, Friedman firmly held the belief that Central Banks should set a fixed rate of increase for the money supply. So much so, that as indicated in a final interview, published posthumously in the Wall Street Journal, substituting a computer for a human Chairman of the Federal Reserve could only improve outcomes.

FRIEDMAN: Yes. Of course it depends very much on how the computer is programmed. I am not saying that any computer program would do. In speaking of that, I have had in mind the idea that a computer would produce, for example, a constant rate of growth in the quantity of money as defined, let us say, by M2, something like 3% to 5% per year. There are certainly occasions in which discretionary changes in policy guided by a wise and talented manager of monetary policy would do better than the fixed rate, but they would be rare. In any event, the computer program would certainly prevent any major disasters either way, any major inflation or any major depressions. One of the great defects of our kind of monetary system is that its performance depends so much on the quality of the people who are put in charge. We have seen that in the history of our own Federal Reserve System. Surely a computer would have produced far better results during the 1930s and during both world wars (Varadarajan Jan.22, 2007).

¹¹ This allegiance remains the case, even if, as the quotation above indicates, he notoriously placed the natural rate of unemployment in a pseudo-Walrasian setting.

Friedman was admittedly not as extreme as Stigler in ascribing every regulatory initiative and application to narrow self-interest. He reasonably made some allowance for publicly spirited bureaucrats and even politicians. Universal venality need not rule. However, the perils of the type of government intervention prescribed by Keynes could not, and should not, be ignored.¹²

A Treatise on Money (1930) was meant to be Keynes's *magnum opus*, to establish him as the profession's leading monetary economist by publishing a Teutonic-style tome. Keynes was to tell his parents in September 1930 when the book was released, that artistically, it was a failure because he had changed his mind "too much" during its gestation period. It was still Marshallian in construction. The volume continued to emphasise the characteristics of the long-period position placed within a quantity theory of money framework. The greatest originality, he argued, was to be found in the dynamic, out-of-equilibrium analysis of the processes occurring between one long-period position and another when one or more of the fundamental determinants of the position had changed. "My object has been to find a method which is useful in describing, not merely the characteristics of static equilibrium, but also those of disequilibrium, and to discover the dynamical laws governing the passage of a monetary system from one position of equilibrium to another", Keynes 1930; *C.W.*, V, 1971: xvii.

His "fundamental equations" (Book III, *C.W.*, V, 1971) were concerned with the determinants and forms of sectorial price levels – those of available and non-available goods – as well as with the overall level. Keynes argued that both short-period and long-period versions were consistent with the quantity theory. It was Richard Kahn who argued that they could also be interpreted and applied without *any* mention of the quantity theory (of which he had been

¹² Milton Friedman: We're talking about the political world, the political market as opposed to the economic one. But in interpreting the political market, George very consistently, interprets the political market as a resolution of opposing self-interests and tended to give very little attention to the extent to which it arose, out of the desire of the people involved in government, to promote the public interest. That is, I think a fair statement and he took that position to a greater extent than most other people... Keynes now was the believer in the public interest theory. John Maynard Keynes was a strong believer in the public interest theory of regulation, and in the operation of government. Indeed I think it was his legacy on that subject which was much more damaging than his legacy on economics (Conversation between Craig Freedman and Milton Friedman, Rose Friedman, Aaron Director, August 1997).

sceptical since his days as a school boy). These later became the basis of a distinction between cost-push and demand-pull inflation, (see Harcourt 1994; 1995: 48).

Keynes used an idiosyncratic definition of saving – “The differences between the money incomes of individuals and their money expenditure on current consumption” (Keynes 1930, *C.W.*, V, 1971: 113). Pure profits (or losses) were defined as windfalls and not included in incomes (112-13). Consequently, when the value of saving so defined departed from the value of investment, prices tended to change in a manner akin to Wicksell’s cumulative process. As the volumes were concerned with the monetary theory of price formation and policy so derived, Keynes tried to abide by a self-imposed ordinance that only price levels and their movements be analysed in detail. He did admit to Ralph Hawtrey that he had not always been true to himself, but had he pushed his analysis further he would have strayed into the complex, detailed and out of place analysis of short-period changes in output and employment (*C.W.*, XIII, 1973: 145-6). Subsequently, though, he wrote to Joan Robinson that she and the ‘circus’ members had been rather hard on him for provisionally assuming that output and employment were given at one point of his argument (*C.W.*, XIII: 270). Nevertheless, his procedure was to follow the determination of succeeding short-period stations on their way to the long-period cross, a thoroughly Marshallian procedure¹³.

In his analysis, Keynes used the concept of a natural rate of interest as an anchoring device with which he could chart the economic consequence of a deviation of the nominal rate of interest from this position. The natural rate ruled the roost by reconciling the forces of productivity and thrift. Only policy could pull the nominal rate back to equality with the natural one. Much of Keynes’s analysis, as he acknowledged, followed from the lead devised by Dennis Robertson in *Banking Policy and the Price Level* (1926) and elsewhere. The full intellectual split between Keynes and Robertson came later with the advent of *The General Theory*.

The structure of *A Treatise on Money* still maintained a dichotomy separating the real from the monetary. The volume recognized the implications of any differences between saving and investment for the working of the economy, but these were not yet fully worked out. As far as

¹³ Joan Robinson (1933a; *C.E.P.*, I, 1951: 56) was later to point out that he had come up with a theory of *long-period* unemployment.

the impact of policy on the economy was concerned, the emphasis was on the effect that the long-term rate of interest had on investment in long-lived productive assets

3 Keynes's Rejection of the Quantity Theory: *The General Theory*

I continue to regard what I wrote as a reformulation of the quantity theory of money, just as I continue to regard Keynes's Monetary Reform and large parts of his Treatise, and some parts of his Gen. Theory, as the writings of a quantity theorist. I have increasingly become persuaded that the really Keynesian element ... in the Gen. Theory is the treatment of prices as institutional datum (Friedman quoted in Leeson 2003b:257).

Following the publication of *A Treatise on Money*, there began the feverish years that led to the creation of *The General Theory*. Keynes was guided by his dissatisfaction with the structure of the 1930 book. He also was motivated by the worsening economic situation, the savage reviews by Hayek and others, and his continuing collaboration with members of the "circus". Important aspects of this process were two progress reports published by Joan Robinson in 1933, (1933a), (1933b), linking Hayek and Keynes, while making explicit their points of departure from one another¹⁴. By the time *The General Theory* was published in February 1936, the key points of its departure from what Keynes had previously thought of, and now dubbed, inaccurately, the Classical School [1936: 3, n.1]¹⁵ were made explicit. The detailed structure of what Keynes regarded as the Classical School was set out most clearly in Pigou's 1933 book on unemployment, but was also implied in much of Keynes's own preceding writings and lectures, see Ambrosi (2004). The key points of distinction were as follows: First, there is no tendency to full employment in either the short or long period. Employment and output are not determined by wages (real or nominal) but rather by the level of effective demand. (By the 1940s, Keynes doubted whether the long period had any operational significance or content for the issues he was examining in *The General Theory*.) Consequently, involuntary unemployment is not only possible, but actually likely. Secondly,

¹⁴ For further discussion of this see Chapter 3 of Harcourt and Kerr (2009).

¹⁵ As a skilled polemicist, Keynes was more interested in scoring the points needed to carry his argument than in hewing to the detailed accuracy required of the intellectual historian.

As a historian of thought in areas in which he was emotionally involved as a protagonist and prophet, Keynes seemed to me to be seriously lacking in the unexciting but essential qualities for the intellectual historian of objectivity and of judiciousness. Even when he was engaged in selecting those upon whom to bestow laurels for having in some degree anticipated his discoveries, his selection seemed to me then, and still seems to me now that I have acquired more knowledge of the older literature, often to have been random when not eccentric (Viner 2003:418).

the classical dichotomy between the real and monetary economy could not be defended as holding in either the short or the long period. Money was not neutral in either. Thirdly, it is investment that leads with saving only responding¹⁶. Fourthly, the nominal rate of interest now ruled the roost. Keynes's version of the natural rate, transformed into his marginal efficiency of capital (investment), is more aptly conceived of as the expected rate of profit. This has to measure up to the nominal rate of interest. (In the old story, the direction was reversed.) Fifthly, the rate of interest is primarily a monetary phenomenon¹⁷, as it is closely related to the workings of the money market. It was not a price that equilibrated saving and investment, but, rather, the price which equated the supply and demand for money. Sixthly, the general price level is determined by the prices of the variable factors and their short-period productivities, not by M and V , meaning that its value is determined in the real sector. (Qualitatively inessential modifications would be made for imperfectly competitive market structures, should, or when, they might occur.) Seventhly, and perhaps the most fundamental factor behind all the arguments establishing the principal characteristics of the system, is the overwhelming importance of expectations, especially long-term expectations. Most important here were their determination and the impact they had on all important economic decisions and relationships in the environment of fundamental, inescapable uncertainty.

4 Friedman's Response

Friedman emphatically rejected each of these points. As a necessary step in undermining Keynes and his influence on the profession, Friedman categorically denied the concept of uncertainty as exerting any significant influence on economic outcomes. In doing so, he explicitly discarded one of the key insights developed by his erstwhile teacher, Frank Knight (uncertainty as uninsurable risk). Allowing uncertainty into the mix might logically undermine his own firmly held belief in individual rationality and responsibility.

Milton Friedman: But I think his distinction between risk and uncertainty is untenable.... I believe that it uses a false theory of probability. I believe that the only theory of probability that can hold water is personal probability, the kind of thing that Jimmy Savage help develop¹⁸. If

¹⁶ For a clear statement of the importance of this for Keynes, see Meade 1975: 82.

¹⁷ Not completely, since the transactions and precautionary demands for money are related to prices and quantities.

¹⁸ The attempt to substitute subjective probability for uncertainty came at an early stage of the Chicago counter-revolution. The relevant paper produced by Friedman and Savage (1948) is "Utility Analysis of Choices Involving Risk". Clearly Friedman's need to disarm and impede any development and employment of uncertainty in economic analysis is striking importance. It may also, at some level, have signalled his initial

you take that approach, you can't distinguish uncertainty from risk. There's no break point. But also, you see, it means that Knight implicitly was working on a definition of probability as a relative frequency. And that misleads people into thinking that there are objective probabilities that you can know. Therefore it leads to a distinction between risk and uncertainty in terms of costs. Knight assumes you know some probabilities and that there's no way you can know others. In a personal probability sense, nobody really knows any probability. There are no objective probabilities (Conversation between Craig Freedman and Milton Friedman, Rose Friedman, Aaron Director, August 1997).

Keynes thought that his new ideas would be put to the test by expenditure on rearmament in the late 1930s and then by war time expenditure itself. The context would be, of course, the other side of the coin, the onset of shortages and inflationary dangers. These were to be tackled by the analysis and policy recommendations of "How to pay for the war" (1940).

Chicago, however, never accepted either the spirit or theoretical underpinnings of *The General Theory* with Knight being one of the most vociferous critics. Milton Friedman would have imbibed deeply from this particular intellectual flow showing no particular sympathy for Keynes despite the real influence that the liquidity preference of *The General Theory* would implicitly have on his own formulations¹⁹.

I regard Mr. Keynes's neo-mercantilistic position in economics in general, and with respect to money and monetary theory in particular, as essentially taking the side of the man-in-the-street, against the effort of the economic thinker and analyst to get beyond and to dispel the short-sighted views and prejudices of the former ... His work and influence seem to me supremely 'anti-intellectual', in the only meaning of intellectual life which is worth of approval or support (Knight quoted in Patinkin 2003d:385)²⁰.

attempt to make a clear break from the views associated with Knight. However at the time, most American Keynesians left this notion of uncertainty largely unexplored.

¹⁹ For Friedman, Keynes had offered nothing superior to the policies already touted by his teachers at Chicago. Theoretically, he would have preferred the ideological implications of the theoretical approach provided by Knight and Simons to the interventionist implications of Keynes's framework

On the contrary, so far as policy was concerned, Keynes had nothing to offer to those of us who had sat at the feet of Simons, Mints, Knight and Viner (Friedman 1972:837).

²⁰ The editor of the *Canadian Journal of Economics*, in which Knight's scathing review originally appeared, offered Keynes a right of reply.

... Keynes declined, saying that 'with Professor Knight's two main conclusions, namely, that my book caused him intense irritation, and that he had had great difficulty in understanding it, I am in agreement. So perhaps you will excuse me if I leave the article alone' (Patinkin 2003d:384).

In his intellectual autobiography, his close ally Stigler makes it clear that Friedman's aim was to undermine the credibility of Keynesian economics, with monetary theory to offering a strategic opportunity. Since Keynes's death in the immediate post-war period, much of the research focus lay on the fiscal side of the policy equation, especially among the American Keynesians. Monetary theory was allotted a large dose of benign neglect. Friedman's strategy, as previously noted, was not to meet Keynes's monetary theories head on, but to rather reduce Keynes's approach to that of the classical quantity theory of money. It was monetary theory that would provide Friedman with his most effective thin edge of the wedge. This approach would ultimately gain him attention. By employing this mechanism, he would methodically be able to chop away at the underpinnings of Keynesian theory²¹.

First he revived the study of monetary economics, which had become moribund. He used the quantity theory of money, and refurbished and extended it, not only to study economic behaviour but also to launch a powerful attack on the Keynesian School (Stigler 1988:150-151).

Friedman's first monetary broadside came with the publication in 1956 of *The Quantity Theory – A Restatement*. Remember that the strategy was not simply to offer an alternative, but to present it as going back to the roots of the economics profession. Thus his revived version of the quantity theory became something of a cleansing, or purification, driving out the false spirits infecting the profession. He did this by tying his approach to that of an oral tradition which he claimed to have imbibed during his stay in the Chicago of the 1930s.

The purpose of this introduction is not to enshrine – or, should I say, inter – a definitive version of the Chicago tradition. To suppose that one could do so would be inconsistent with that tradition itself. The purpose is rather to set down a particular 'model' of a quantity theory in an attempt to convey the flavour of the oral tradition which nurtured the remaining essays in this volume (Friedman 1956: 3).

Notice the cleverness of this approach. Friedman, by simply refusing to engage with Keynes or the work of the Keynesians, reduces Keynes to the position of a non-person. Friedman sought controversy throughout his career, so it is not a far stretch to believe that given his underdog position, he was deliberately cultivating a gale of responses from the opposition. Subsequently, a seeming flaw in the functioning of Friedman's account was highlighted by

²¹ It is not too much of a gross exaggeration to claim that money became something of an '*idée fixe*' with Friedman. Perhaps Robert Solow summed it up most succinctly, "Everything reminds Milton Friedman of the money supply. Everything reminds me of sex, but I try to keep it out of my papers" (Solow quoted in Liberty Fund 2008).

Don Patinkin, who had studied at Chicago only a decade later, and largely with the same teachers. After consulting notes retained from the relevant classes, Patinkin remained mystified as to the source of such a supposedly well-known oral tradition that employed the quantity theory as a demand for money function. Concurrently, Patinkin, rather naively, questioned how Friedman had managed to overlook the strong Keynesian essence of his own formulated theory.

As an aside, I might add that my only other objection to your [1956] essay is its refusal to recognise the strongly Keynesian flavour of the analysis it presents ... an exposition with the contents and spirit of yours could not have been written (and was not written) before Keynes. I find it particularly difficult to accept your implication that your essay represents the kind of thing that was taught at Chicago by Knight, Viner, Simons and Mints. My own recollections are different (1959 letter, Patinkin to Friedman, quoted in Leeson 2003d:8)²².

This innocent query by Patinkin, naively believing that what was at stake could be resolved through logic and evidence, set up Friedman's boldest move yet. Patinkin's objection provided the opportunity to transform Keynes into a minor quantity theorist whose only semblance of any original contribution was reduced to the formulation of the liquidity trap, or absolute liquidity preference. Emboldened, Friedman would claim that *The General Theory* was riddled with arguments based on absolute liquidity preference, reducing Keynes to the category of an obsessive, one idea economist. Friedman thus hoped to miniaturise Keynes to the point where he would no longer be viewed as an influential, let alone seminal figure.

There is one respect – and I believe only one – in which the discussion of the demand curve for money in the *General Theory* is distinctively Keynesian and that is the importance attached to 'absolute liquidity preference' or a high-interest elasticity of the demand for money. This element is distinctively Keynesian in the double sense that it is, so far as I know, introduced for the first time in the *General Theory* (Friedman 1972:157).

In fact Keynes mentioned his notorious liquidity trap only in passing as a theoretical possibility²³. Given that such a situation had never arisen, Keynes proceeded to move on to

²² After what might be considered to be a good deal of unnecessary to-ing and fro-ing, Friedman conceded Patinkin's historical claim, but remained adamant as to his reading of Keynes. However, even his admission seems niggling as he ingeniously claimed that too much had been made of what was no more than an aside. This extenuation remains curious, as he spent his three opening paragraphs of that influential essay underlining the connection between his reformulation and this older, oral tradition.

I find your description of the oral tradition entirely acceptable and much better and more acceptable than mine. In extenuation, I can only say that the 1956 essay did not set out to be an essay in the history of thought but an introduction to a collection of studies (Friedman quoted in Leeson 2003b:257).

²³ To be exact, it would only occur in the case of very low interest rates, a theoretical possibility to which Keynes did not attach a great deal of likelihood. (Keynes 1936: 207)

more pressing matters. Instead he presumed that the underlying transaction costs of bringing together borrower and lender would preclude interest rates from reaching such low requisite levels. For Keynes this potential, rather than probable condition remained more of a curiosity, than posing any practical danger. Friedman, however, by reinterpreting this theoretical possibility, managed to transform it into a, if not the, major theme of *The General Theory*. Whether or not his arguments, in this regard, were convincing is another matter. However, it was clearly important that his own work should be construed as untouched by any Keynesian influence if he was to successfully dismiss the importance of John Maynard Keynes.

Using Friedman's ... widely imitated methodological distinction, Laidler ... found the 'positive' theoretical content of the Chicago tradition to be essentially indistinguishable from this Harvard-Hawtrey tradition; whereas the 'distinctive feature of Chicagoan analysis was normative, namely to forge a link between a monetary explanation of the cycle and a liberal political agenda'. Laidler provided support for Patinkin's conclusion: in inter-war Chicago in the 1930s and 1940s the quantity theory was not 'first and foremost' a theory of the demand for money (Leeson 2003d:6).

5 The Battle over the Consumption Function

FRIEDMAN: The right saving rate is whatever satisfies the tastes and preferences of the public in a free and unbiased capital market. Markets can adjust to any rate (Varadarajan 2007:1).

In the post-war years Friedman began to build his formidable reputation as an original economist with outstanding technical ability, especially in the use and interpretation of statistical techniques applied to economic data²⁴. One of his contributions exhibiting these traits is his *Theory of the Consumption Function* published in 1957 (the most sustained example is *A Monetary History of the United States 1867-1960*, written jointly with Anna Schwartz (1963).) His theory and empirical findings have informed the mainstream understanding of consumer behaviour and its impact on systemic behaviour ever since.

An important result of Friedman's analysis was to negate any possible impact of fiscal policy on employment or output by effectively "emasculating" the multiplier. The introduction to his

... 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 (Keynes 1936:202).

²⁴ For an overall assessment of his characteristics, see Erik Lundberg's comments when Friedman received the Nobel Prize in 1976, Lindberg (1976).

work on the consumption function leaves little doubt that such an explicit motivation is driving his analysis:

“The doubts about the adequacy of the Keynesian consumption function raised by the empirical evidence were reinforced by the theoretical controversy about Keynes’s proposition that there is no automatic force in a monetary economy to assure the existence of a full-employment equilibrium position. A number of writers, particularly Haberler and Pigou, demonstrated that this analytical proposition is invalid if consumption expenditure is taken to be a function not only of income but also of wealth or, to put it differently, if the average propensity to consume is taken to depend in a particular way on the ratio of wealth to income” (Friedman 1957: 5).

In order to achieve this objective, Friedman subtly changed the definition of consumption from that utilised by Keynes. As Keynes was primarily interested in consumption as a component of aggregate demand, he focused on: “Expenditure on consumption during any period [which] must mean the value of the goods sold to consumers during that period” (Keynes 1936: 61). For Keynes this distinction between consumption expenditure and investment expenditure was determined by the source of that expenditure between consumers and entrepreneurs (Keynes 1936: 61). Friedman, by contrast, utilised a much narrower definition of consumption, explicitly ruling out the purchase of durable goods and instead confining it to non-durables and the value of the services derived from such durables (Friedman 1957: 28). For Friedman, “expenditures on durable consumer goods can be regarded as capital expenditures and only the imputed value of services rendered included as consumption” (Friedman 1957 p. 20).

Building on Irving Fisher’s understanding of individuals’ consumption and saving behaviour over their lifetimes, Friedman defined two concepts which underlay observed time-series and cross-section data on consumption and income, but which did not directly coincide with them, i.e., were not immediately observable. The observed statistics, Friedman argued, were made up of two elements: temporary consumption and income and permanent consumption and income. The real determinant of life-time consumption behaviour was permanent income. The temporary components were only relevant in so far as over time they affected the values of permanent income. Similarly, temporary consumption needed to be distinguished as the disposal of windfall gains or losses mainly. Such decisions affected current saving rather than sustained behaviour in regard to the consumption of the services of consumption goods, especially those of consumer durables. This entailed a sharp distinction between expenditure – actual purchases and when they occurred – and true consumption, which was the use per

unit of time of services provided over the lifetimes of consumer goods. As a result it suppressed the timing and amount of expenditure which would be more relevant as far as the creation of employment and output were concerned.

Moreover, since any stable 'true' relationship in the theory of consumer behaviour related to the links between permanent income and permanent consumption, any relationship observed between total consumption and total income was a spurious, non-meaningful, not to be relied upon, finding.

This had important implications for Keynes's version of the consumption function, which, in *The General Theory*, Keynes argued to be a stable short-run relationship. Keynes used this connection to derive the multiplier. By doing so he assumed that its characteristics could be relied upon when designing fiscal policy. The implications of Friedman's analysis were to pull the rug out from under these claims by Keynes and those who followed him. If there was neither a meaningful nor a stable relationship between observed consumption expenditure and income, both at the individual and aggregate level, Keynes's policy proposals, including those involving the multiplier, were argued to be invalid. In place of Keynes's consumption/income relation Friedman restored the rate of interest as the major determinant of consumption/saving, thereby resurrecting loanable funds as the main explanation of saving and investment. In doing so, he removed what Keynes saw as one of the central propositions of *The General Theory*, namely, that it is changes in income which equate saving and investment, not the rate of interest.

When Keynes wrote *The General Theory*, the significance of durable goods expenditure on total household consumption was much less than would be the case in the post-war period. Nor was the availability of "credit for all" then a leading characteristic of capitalist institutions. Both of these factors would surely have modified Keynes's views on the consumption function and, of course, did in the writings by Keynes's followers in the post-war period (not least by Harcourt, Karmel and Wallace in *Economic Activity* (1967)). Nor was Keynes unaware of the factors and propositions that Friedman put forward in his 1957 book – a careful reading of the chapters on the consumption function in *The General Theory* will discover references to all the ingredients of Friedman's theory, together with the argument that in the short run their impact is likely to be minor. If such relationships hold, then current

personal disposable income remains the major determinant of current consumption expenditure²⁵.

“Since, therefore, the main background of subjective and social incentives changes slowly, whilst the short-period influence of changes in the rate of interest and the other objective factors is often of secondary importance, we are left with the conclusion that short-period changes in consumption largely depend on changes in the rate at which income is being earned and not on changes in the propensity to consume out of a given income” (Keynes 1936: 110).

Nevertheless, despite Friedman’s sustained efforts to discredit Keynes’s approach and policies based on it, when Jim Thomas surveyed the econometric work of various theories and specifications of the consumption function (Thomas 1997), Keynes’s short-period consumption function performed well when compared to all other approaches, (see Harcourt and Riach 1997: vol 1, xxvi, and Thomas, 1997: 158-60).

6 Milton Friedman: Marshall’s Heir

I think the emphasis in Chicago – this is a very difficult question because I was about to say, it was really the fact that Chicago followed what I’ve always called a Marshallian approach as opposed to a Walrasian approach – where the individual and the enterprise, where self-interest is dominant (Conversation between Craig Freedman and Milton Friedman, Rose Friedman, Aaron Director, August 1997).

As a good Marshallian, Friedman adhered closely to the views of Dennis Robertson, Marshall’s most respectful and pious follower, when considering theories of accumulation, saving and the rate of interest. Thus, forces of productivity and thrift dominate Friedman’s writings on these issues, especially in the relevant chapters in the book of his Lectures on Price Theory, Friedman 1976a. Though there are similarities between Keynes’s marginal efficiency of capital and Fisher’s rate of return over cost, Friedman was hostile to Keynes’s account of the determination of investment expenditure. According to Keynes, the nominal rate of interest rules the roost, by determining how much investment will be planned in light of existing long-term expectations and the cost and availability of finance. Friedman did not approve of Keynes’s decision to drop the natural rate of interest as a dominating concept in both determining accumulation and the value of the nominal rate of interest. Equally,

²⁵ Keynes was also aware of the factors which lay behind both James Duesenberry’s 1949 treatise on the consumption function – the significance of relative income in cross-section studies and the ratchet effect in times-series studies – and Franco Modigliani’s theory of lifetime saving, Modigliani and Ando (1957).

Keynes's argument that the (neo) classical dichotomy between the real and the monetary was largely spurious, even in the long period, failed to persuade Friedman.

Friedman's attitude was related to his desire to rehabilitate the quantity theory of money. Doing so required transforming it into a stable demand curve for money. Success implied a monetary policy founded on rules rather than on discretion. Friedman could then insist that an increasing or decreasing general price level was purely a monetary phenomenon. This argument tied in tightly with his view that in competitive conditions the natural resting place of the economy was a full employment. Under the sway of such an equilibrium, individual markets were cleared by the relevant relative prices, in the case of labour markets – real wages. Policy could then be directed at establishing changes in the quantity of money which were consistent with the competitive forces establishing the natural rate of unemployment, and the accompanying natural rate of interest. This approach possessed the virtue of reconciling theorised economic processes with his understanding of old-fashioned liberal principles. By doing so Friedman perceived that he was able to uphold individual freedom against the onslaught of collective decision making. Moreover, government intervention would necessarily be reduced to the traditional roles identified by Adam Smith, at least as Friedman (but not his son, David, or brother-in-law, Aaron Director) read him.

Friedman also brought the quantity theory back into fashion because he wanted a theory of the determination of the general price level that both fitted with his policy recommendations and could out-rival Keynes's alternative as presented in Chapter 21 of *The General Theory* (later modified in the light of the findings of Michal Kalecki, Lorie Tarshis and John Dunlop, see *C.W.*, vol VII, 1973: 394-412). Ironically, Keynes in *The General Theory* performed in a pure Marshallian manner by aggregating up from the theory of competitive pricing of the firm and industry, found in Marshall's *Principles*, to the level of the economy as a whole. Gone were the fundamental equations of *A Treatise on Money*. In their place was the argument that overwhelmingly short-period marginal cost pricing ruled in all sectors of the economy and especially in the capital goods trades. Had that not been the case, one of Keynes's explanations of why the MEC/MEI schedule sloped downwards in the short period, eventually bringing equality between the MEI and the nominal rate of interest, would be logically inconsistent²⁶. At its most simplified and fundamental level, the analysis contained

²⁶ Reconstructing Keynes's logic, he is shown to have used rational expectations analysis for at least the second time in his life. (The first was when he did just enough work on mathematics as a third-year undergraduate to

in Chapter 21 may be interpreted as the construction of overall output (or employment) relationships in which possible general price levels are the aggregate of the short-period marginal costs of the economy²⁷. Friedman probably would not have been unsympathetic to Keynes's use of Marshall's procedures except that his own explanation fitted much more easily and logically into his overall agenda. Nor would he or Stigler have approved of Keynes's move towards accepting imperfectly competitive market structures as characterising the economy²⁸, following the Kalecki, Tarshis, Dunlop findings²⁹. He was later to propagate the canard that there was a missing equation in Keynes's system to which the Phillips curve provided the answer, only for the Phillips curve itself to be pulverised by Friedman in the 1960s and later³⁰.

7 On International Trade

While it was the USA through Harry Dexter White rather than the UK through Keynes who overwhelmingly carried the day in setting up the characteristic dimensions of the Bretton Woods institutions, Keynes supported a regime of fixed exchange rates with the possibility of moveable pegs for economies whose external balance was seriously ruptured. (The object was to preserve internal balance.) He was also in favour of permanent capital controls in order to protect exchange rates from the impact of hot money inflows and outflows. This was because of the problems associated with the instability of a flexible exchange rate regime, as Keynes had warned about the dangers of speculation and the impact of the uncertainty it generates on the economic environment.

None of these provisions were acceptable to Friedman who, from at least the 1950s on advocated establishing a system of floating exchange rates to tackle deficiencies in the processes at work in the international economy. The theoretical rationale behind Friedman's

become Twelfth Wrangler in 1905, the respectable but not outstandingly brilliant result that JMK (but not JNK) wanted, see Skidelsky, 1983: 132.) If accumulators did not use the ultimate equilibrium prices of capital goods in their calculations when making their decisions, the combined outcome of their actions would not have established those equilibrium values, see Harcourt 2006: Ch 4.

²⁷ Tom Asimakopulos (1982) worked out the precise conditions which had to hold for this to be a coherent procedure.

²⁸ It can be argued that employing free competition in *The General Theory* was basically a tactical move to prevent critics from shifting the terms of debate. The problems Keynes sketched were meant to apply to all market economies (it was, after all, a general theory) rather than restricted to one particular variety. The danger was that too much of the subsequent debate might have centred on whether or not markets were competitive, and not on problems inherent to any such market economies.

²⁹ Starting with Knight, Chicago saw nothing to be gained by following the thirties craze for imperfect and monopolistic competition. In a review of Robert Triffin's 1940 book, Friedman saw little advantage, and much potential loss, from abandoning Marshall. He viewed Chamberlin, among others, as throwing away the advantage provided by Marshallian industry analysis.

³⁰ See Friedman's Nobel Prize Lecture (1976), towards the end of which he makes this argument but gives the wrong page of *The General Theory* as evidence of his claim that Keynes agreed with him, Friedman 1976b: 282.

advocacy was that there existed a pattern of stable, long-run, equilibrium exchange rates. Markets characterised by the free floats and deregulation would quickly find and hold these equilibrium rates, aided and abetted by the systemically beneficial actions and effects of speculators. So, yet again, there was a significant part of Keynes's system and policy recommendation to which Friedman was opposed, in this case, in practice, successfully so.

8. Conclusion

This paper has looked at Keynes's analysis and Friedman's response to it, and has suggested an interpretation different from the conventional wisdom of the profession on Friedman's role in undermining Keynes's message in *The General Theory*.

Friedman's vision was one where markets worked efficiently, and prices operated so as to ensure that all markets clear. Monetary variables did not influence real ones, and instead influenced only the inflation rate. Governments could not increase employment, which was already stood at full employment. They were limited to at best inducing a temporary trade-off with increased inflation being the long-run price of any attempt to reduce unemployment. There was no "fundamental" uncertainty, in the Keynesian sense – only probable outcomes. Speculators profited by correctly predicting the natural outcomes, and acted so as to facilitate and speed up market adjustment. Friedman believed in the self-correcting powers of markets, and thought that this would only be impeded by government intervention. By in fact eliminating dangers flowing from any sustained economic power, such meddling became substantially pointless. Government planning would instead only serve to limit individual freedom and liberty.

Although in his work before *The General Theory*, Keynes also accepted the long-run equilibrating powers of markets, after *The General Theory*, Keynes's view of the economy was quite different. He saw decision making and subsequent actions as permeated by fundamental uncertainty. Keynes could no longer believe that market forces would guarantee the full utilisation of all resources, especially not labour. Such a conclusion made the need for government intervention necessary and indeed inevitable.

In section 3 we identified seven main points of distinction between Keynes's work and the orthodox economic analysis that Friedman championed. Throughout his career, Friedman

took issue with Keynes's conclusion that there was no tendency towards full employment in either the short or long period. Almost all of Friedman's work was aimed at showing the stabilising powers of free markets and their ability to generate full employment – though he subtly changed the meaning of full employment to achieve his wider purposes.

Friedman's restatement of the quantity theory was specifically aimed at restoring the central postulate of long-run money neutrality, with money having no influence on real variables in the long run. His work on the consumption function restored the loanable funds view, with saving leading investment, thereby overturning Keynes's liquidity preference view of the determination of interest rates. Friedman was able to eliminate Keynes's important mechanism whereby changes in income equated saving and investment with changes in investment leading to changes in saving. This also restored the natural rate of interest to its role of equating saving and investment. Inflation was reintroduced as an essentially monetary phenomenon. Finally, Friedman replaced Keynes's concept of fundamental uncertainty, with measureable and thus knowable probabilities. By so doing uncertainty was no longer a fundamental consideration in decision neither making nor in theorising.

This chapter has documented Friedman's deliberate attempt at dismantling the Keynesian legacy, and highlighted his underlying theme which was to re-establish the primacy of markets and the impotence of government intervention.

The post-war period saw the successful implementation of Keynesian policies at the domestic level. This period, often called the "golden-age of capitalism", came to an end in the early 1970s, at the same time that Friedman's ideas came to dominate both the economics profession and economic policy. As a result of Friedman's writings, Governments became committed to the idea of monetary targets, and many OECD countries tried to implement these. However, as fixed money supply targets proved impossible to implement, mainly due to the endogenous nature of the money supply, they were eventually abandoned. In economic theory, Friedman's views were taken to an extreme that Friedman himself rejected, by the rational expectations school – which applied his analysis of rational maximising individuals to the arena of expectations. The resultant theory assumed that the economy is always in equilibrium and that government could have no impact on the economy. It also abolished the distinction between short run and long run, as rational economic agents immediately adjusted to any shock. Subsequently a new consensus arose, especially with regard to monetary policy,

which accepted Friedman's argument for policy rules, modified to incorporate the view that the money supply could not be controlled. Instead, the Taylor rule specified interest rates as the appropriate tool of monetary policy and allowed them to change only as a result of changes in the inflation rate. Keynesian economic policy made a brief comeback as a result of the global financial crisis, with many governments implementing expansionary fiscal policy in the hope of moderating the rise in unemployment. However, this was short lived with a speedy return to concern about the sizes of budget deficits and debt to income ratios, and the implementation of austerity policies.

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