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The Initial Controversy - Introduction

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Keynes, Chicago and Friedman

Chapter 1: The Initial Controversyⁱ

Robert Leeson

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1.1 Introduction

During the middle third of the twentieth century, the ideas of John Maynard Keynes and those who described themselves as “Keynesians” acquired a profound influence over both the economics profession and the macroeconomic policy process. After the publication of Milton Friedman’s (1956) *Studies in the Quantity Theory of Money*, Keynesians were obliged to compete with “monetarists” for policy and intellectual influence.ⁱⁱ These two volumes examine aspects of this counter-revolution by focusing on Friedman’s claim that he was merely formalising the macroeconomic ideas of the first generation Chicago School, at whose “feet” he “sat” in 1932-3 and 1934-5 (Friedman chapter 7 [1972/1974], 163).

In his introductory chapter ‘The Quantity Theory of Money – A Restatement’ Friedman (chapter 2 [1956], 3-4) launched the monetarist counter-revolution accompanied by the assertion that “Chicago was one of the few academic centres at which the quantity theory continued to be a central and vigorous part of the oral tradition throughout the 1930’s and 1940’s”. Friedman sought to “nurture” the revival of the quantity theory by linking it to this Chicago “oral tradition”. According to Friedman the “flavor” of this oral tradition was captured in a model in which the quantity theory was “in the first instance a theory of the demand for money”. Friedman did not intend to offer “a full justification” for his “assertion” adding that to “the best of my knowledge no systematic statement of this theory as developed at Chicago exists, though much of it can be read between the lines of [Henry] Simons’ and [Lloyd] Mints’s writings”. Friedman also enlisted the names of two co-editors of the *Journal of Political Economy* (*JPE*) Frank Knight and Jacob Viner (1929-45) in support of his assertion.

Don Patinkin studied at Chicago between 1941-47, a few years after Friedman; both had been taught monetary economics at Chicago by Mints.ⁱⁱⁱ Patinkin analysed his 1944 notes from Mints’ Economics 330 and found no evidence to sustain Friedman’s account of the nature of the Chicago monetary tradition. There had previously been other attempts to construct oral traditions and lineages; but none generated as much heat – and light - as this. This introductory chapter sets the Patinkin-Friedman dispute in its political and ideological context and also describes some of these other lineage assertions and disputes.

Patinkin (chapter 5 [1969/1981], 241, 253, 256) began his assault with “an apology for being over a decade late”. The “nominal” justification was the recent publication of Friedman’s (chapter 4 [1968]) encyclopaedia essay on the quantity theory in which the Chicago School, its individual members, and *Studies in the Quantity Theory of Money* are not mentioned.^{iv} Indeed, in the offending sentence of that encyclopaedia entry, Friedman (chapter 4 [1968], 439) did not even refer to his own work. Instead, he referred to an essay by Harry Johnson: “The postwar period has also seen a return

to analysis in terms of the quantity equation accompanied by a reformulation of the quantity theory that has been strongly affected by the Keynesian analysis of liquidity preference (Johnson 1962).^v Since Patinkin acknowledged that in 1968 Friedman had already “admitted” his “intellectual indebtedness” to “modern Keynesian monetary theory” this suggests that Patinkin’s assault may have a “real” cause: the increased potency of Friedman’s macroeconomic advocacy and ideology, relative to the mid-1950s. In a posthumously published essay, Patinkin (1995, 361-2) stated that in his judgement, Friedman returned to Chicago in 1946 “to continue the school’s fundamental ideological advocacy of free-market economic liberalism”.

Studies in the Quantity Theory of Money was published mid-way between Herbert Hoover’s defeat in 1932 and Ronald Reagan’s victory in 1980.^{vi} Hoover’s defeat by Franklin Delano Roosevelt in 1932 produced a “political watershed” equivalent to that later created by Reagan’s victory in 1980: the 1860-1932 era of Republican ascendancy gave way to the 1932-1980 era of Democrat ascendancy (Friedman and Friedman 1980, 331-2; 1984, 4).^{vii} Reagan’s election was regarded as the death of the New Deal (Graham 1989, 75); it initiated a period of increased policy influence for Friedman and other Hoover Institution economists.

Political watersheds often occur in conjunction with changes in the intellectual climate. The President and Chairman of Citibank recalled that as a result of the research undertaken by Friedman and his students “every Friday afternoon, a kind of eerie silence settled over the normally boisterous trading rooms on Wall Street. The computer screens started going blank at about 4.20 as traders waited for the 4.30 announcement of the M1 and M2 figures. The quantity theory of money had come to Wall Street” (Wriston 1998, 2). Almost half a century earlier, the *Chicago Tribune* reported that after Roosevelt’s victory the quantity theory had come to Washington with the “brains trust”: “All Washington is going to school to the professors ... Debutantes hang on their exposition of the quantitative theory of money” (cited by Leuchtenburg 1968 [1933], 50).^{viii}

Three students of the first generation largely created the second-generation Chicago School: Friedman, W. Allen Wallis and George Stigler. According to Stigler (1969, 229), an incumbent was “A person of the liveliest interest to the outcumbents”. In 1952, Adolf Berle, a prominent New Dealer, attempted to persuade Senator Paul Douglas, an important inter-war University of Chicago economist, to seek the Democratic Party Presidential nomination (Schwartz 1987, 295; see also Douglas 1972, 193-4). Twelve years later Berle (1973 [1964], 795) confided to his diary: “Goldwater has picked up Milton Friedman, the economist of the University of Chicago, straight out of the old laissez faire group. He will make the campaign a referendum on everything that has happened since Roosevelt was elected in 1932, and his crowd mean to go for broke ... The worst elements in American reaction have their day”.

1.2 The Importance of Lineage and Tradition

Friedman sought to explain the “transition from the overwhelming defeat of Barry Goldwater in 1964 to the overwhelming victory of Ronald Reagan in 1980 - two men with essentially the same programme and the same message” (Friedman and Friedman 1982, viii). One partial explanation was lineage. Goldwater was pilloried for using the phrase “Extremism in defence of liberty is no vice”; Friedman reflected that the

reaction would have been so different “if Goldwater had introduced the statement by ‘as Cicero said more than two thousand years ago’” (Friedman and Friedman 1998, 368-9).^{ix}

Friedman (1953, 3-5) found a lineage for his methodology of positive economics in John Neville Keynes’ (1891) *Scope and Method of Political Economy*. Friedman suggested that the “progress” of such a method of research could allow differences of opinion among “disinterested citizens” to be “eliminated”, unlike value judgement disputes, about which “men can ultimately only fight”.^x Friedman (1977) also found a lineage with which to conclude his Nobel Prize Lecture - a quotation from Pierre du Pont to the French National Assembly of 1790: “Gentlemen, it is a disagreeable custom to which one is too easily led by the harshness of the discussion to assume evil intentions. It is necessary to be gracious as to intentions; one should believe them good and apparently they are; but we do not have to be gracious at all to inconsistent logic or to absurd reasoning. Bad logicians have committed more involuntary crimes than bad men have done intentionally”. But Friedman was suspected of attempting to perpetrate an ideological coup as du Pont and his fellow Physiocrats had done.^{xi} Thus some of Friedman’s opponents exhibited “a bitterness beyond reason” – attributed by Donald McCloskey (1986) to the widespread professional acceptance of Friedman’s methodology of positive economics.

According to a University of Chicago Public Policy Pamphlet discussion of monetary policy, “tradition ... is stronger than logic” and could thus be a crucial factor in the “tactical” process by which policy is formulated and propagated (Whittlesey 1935, 24-5). Tradition and lineage were important not only to Friedman but also to his fellow Mt. Pelerin Society libertarians. In his Opening Address to the Society, Frederick von Hayek (1967 [1947], 158) highlighted the importance of lineage by proposing the name “Acton-Tocqueville Society”.^{xii} In a University of Chicago Public Policy Pamphlet, Hayek (1939, 24, n15) stated that “There can be little doubt that the existence of firm tradition has materially helped to preserve free institutions in the Western world, just as its absence has contributed to their downfall in central Europe”.^{xiii} According to Stigler (1988) “There was no Chicago School of Economics when the Mt. Pelerin Society first met”.

While Friedman’s (1953; 1957) methodology and permanent income hypothesis entered the economics mainstream, his monetary research was initially regarded as the work of an eccentric. Meghnad Desai (1981, 2) went as far as to suggest that prior to the publication of *A Monetary History of the United States* (Friedman and Schwartz 1963), Friedman’s use of the quantity theory was regarded as “a peculiar Chicago madness, indulgently mocked”. According to Robert Barro (1998, 5), Friedman had been treated as a “right-wing midwestern crank. Most of the derision applied to his views on money”.

Neither Desai nor Barro were dispassionate observers; but according to an unpublished Massachusetts Institute of Technology doctoral dissertation on the ‘Demand and Supply Functions for Money in the United States’, the implications of Friedman’s results were “limited because the definitions and formulations used are somewhat idiosyncratic, thus insulating his work from the main stream of research effort in the monetary area ... we here neglect our conceptual misgivings about the

Friedman approach, allow him his definitions for the sake of argument, and attempt to show that his approach appears to be empirically inferior” (Teigen 1962, 31, 170).^{xiv}

Eccentrics or “cranks” can help define the boundaries of professional respectability. Prior to 1936, acceptance of the quantity theory was, for some, the touchstone of professional reliability. For example, Edwin Kemmerer (1935, 66), of Princeton University, concluded that “it can be said, without fear of successful contradiction, that a large majority of scientific economists, both in the United States and abroad, who have worked intensively in the field monetary theory, accept some form of the quantity theory of money”.^{xv} Kemmerer (1934a, 174, 51, 56, 77, viii, 151) was alarmed by his belief that the U.S. money supply had increased by 59% between June 1926 and March 1934, resulting in a “59-cent dollar”. The Federal Reserve banks could, he argued, control the money supply but not their velocities: “You can lead a horse to water but you can’t make him drink”.^{xvi} These velocities were “questions of business confidence and prospects, of hopes and fears, of emotions and prejudices”. According to Kemmerer (1933, 134; 1934b) there was a direct relationship between velocity and business confidence and therefore the “vigorous reflation program of the Federal Reserve banks” had been counter-productive because it had weakened the confidence of the business community”.^{xvii}

Kemmerer (1934a) opposed “the money cranks ... a mass of barnacles so bright in appearance and with such clinging properties”. After attending the 1932 American Economic Association (AEA) proceedings, Richard Kahn (30 January 1933) wrote to Keynes from Chicago complaining that American economists were “still living in the Dark Ages. It was all about the helplessness of trying to expand the economy ... the dead hand of Kemmerer hung heavy on most of the proceedings ... I am thinking that the only way to save humanity is to lead a campaign against the Quantity Theory. I tried it on the [University of Chicago] Graduate Club here and they didn’t very much like it, but didn’t quite know what to say. These people can see nothing absurd in the president elect being 'opposed to currency inflation but in favour of credit inflation'. I am enjoying the spectacle”.^{xviii}

Keynes (JMK XIII [1935], 546, 552; 1936, 351) realised that cranks could also be resurrected as neglected heretics “which the classics have treated as imbecile for the last hundred years ... I am not really being so great an innovator, except as against the classical school, but have important predecessors and am returning to an age-long tradition of common sense ... which deserves rehabilitation and honour”.^{xix} As a result of the post-1936 Keynesian revolution, adherents of the quantity theory were relegated to “crank” status. Until the late 1960s, that is, when Friedman was transformed from “pariah to priest” (Barro 1998, 6). Entering the temple, he turned the tables on those who had changed “Money” into Keynesian “Macroeconomics”. For this rebellion against the Keynesian Neoclassical Synthesis, Patinkin sought to have him, if not crucified, then permanently separated from his claimed parentage.^{xx}

Patinkin explained to his students at the University of Western Ontario (19th November 1973) that with respect to “Friedman vs. everyone else – after having said everything they could think about one another, they started on their respective intellectual forefathers – and in this context, the worst thing that you can say about your opponent that he’s a bastard – or at best an intellectual bastard. That he really isn’t the son of the intellectual father he is claiming for himself. That he really

doesn't understand the teachings of his alleged fathers – and that his opponent is really the legitimate descendent" (see Backhouse 2002).^{xxi}

1.3 Monetarists and Keynesians

Those who opposed the New Deal were tainted by the "mark of Cain" (Conkin 1968, 51); until shortly before Patinkin's assault, the 'mark of Chicago' was perceived to have inspired Friedman's monetarism. For example, Walter Heller (1969, 40-1), chairman of the Council of Economic Advisers (CEA) under both President Kennedy and President Johnson, stated that "the Chicago School just goes rolling along" with "great consistency over the years". Heller's remarks were made in a widely reported debate on monetary policy with Friedman on 14 November 1968, a few days after Richard Nixon's election victory. In response, Friedman (1969, 45) - obviously aware that his remarks would be scrutinised for hints about Nixon's economic policy - declared that he would "speak not for any mythical Chicago School, nor for any administration or candidate, but for myself".

Friedman (1968) had just completed the theoretical structure of the monetarist counter-revolution with his "natural rate of unemployment" AEA Presidential Address. After Nixon's victory it was widely expected that Friedman would exert a considerable influence on American economic policy. Paul McCracken, Nixon's CEA chairman, declared himself to be "Friedmanesque" (cited by Blumenthal 1986, 109, 111). When Arthur Burns became Chairman of the Federal Reserve Board this was regarded (somewhat inaccurately) by James Tobin (chapter 10 [1981], 30) as the "1970 conversion" to monetarism. Between 1973-5, there were two monetary revolutions (domestic and international) which were closely connected to Friedman's advocacy: the destruction of the post war system of fixed exchange rates and the widespread adoption of the rule of targeting monetary aggregates based on the expectation that the demand for money was a stable relationship.^{xxii}

Since Simons' (1962 [1936]) classic essay on "Rules Versus Authorities in Monetary Policy" the Chicago School had been regarded as the "rules party" (Selden 1962, 323).^{xxiii} According to Simons (1948 [1945], 308) the New Deal had delegated arbitrary power to a series of agencies. This "high-road to dictatorship" was "terrifying" for "an old-fashioned liberal". Elevating the "government of men" over the "government of rules" was tantamount to "accepting or inviting fascism". Simons was interpreted as undertaking a process of "public indoctrination with the new rules of the game so that a new 'religion of money' can be built up 'around which might be regimented strong sentiments against tinkering with the currency'" (Gideonse 1938, 13).^{xxiv}

An early version of Friedman's case for flexible exchange rates can be found in Simons' (1934, 53-4) 'Money and the New Deal'. Mints (1950, 115) also stated that "the essential problem of monetary policy can be stated as that of 'rules versus discretion'". According to Friedman (chapter 7 [1972/1974], 163) this Chicago tradition provided immunity from the Keynesian virus: "the small minority of economists who did not succumb to the Keynesian revolution consisted disproportionately of Chicago-trained economists ... so far as policy was concerned, Keynes had nothing to offer those of us who sat at the feet of Simons, Mints, Knight and Viner".

Studies in the Quantity Theory of Money and Friedman's "Restatement" of the quantity theory was published in the same year as *Money, Interest, and Prices* – Patinkin's (1956) attempt to codify the Keynesian Neoclassical Synthesis. In the ensuing controversy, Patinkin sought to provide 'A Restatement of Keynesian Economics'. Patinkin (27 January 1958; 19 August 1957) informed John Hicks that he was unambiguously an adherent of the Keynesian revolution but that he thought "we strengthen the revolution by dropping the false issue of 'unemployment equilibrium' of which so much has been made in the past ... Keynesian economics can and should be restated in a way that it remains valid even after we do take account of" the real balance effect [emphasis in original].^{xxv}

Shortly afterwards, Friedman (1965 [1958], 106) argued before the Joint Economic Committee of the United States Congress that the money supply should grow at a "predesignated rate". Further supporting evidence was presented in 'The Demand for Money: Some Theoretical and Empirical Results' (Friedman 1959). Patinkin (16 November 1959) then wrote to Friedman to complain that "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 ... to me it seems that with perhaps one exception (Karl Schlesinger) 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".^{xxvi}

Shortly after he returned to Chicago, Friedman attempted to read "between the lines" in connection with Wesley Clare Mitchell. Friedman sought to defend the Burns-Mitchell National Bureau of Economic Research methodology, which had been derided by the structural econometricians as "measurement without theory" (Koopmans 1947).^{xxvii} Mitchell induced in Friedman (1950, 465, 489, 478-9) a feeling of "exasperation, because numerous significant theoretical insights are so carefully hidden".^{xxviii} He attempted to rescue Mitchell's work and to elevate it as "a contribution to economic theory of the first magnitude". Friedman believed that "the theoretical insights are there after one pierces their protective coloring". He explained the process by which he intended to enable "economists ... to rediscover [the] essential elements" of Mitchell's work: "The aim of the free rendering that follows is to show that an integrated business-cycle theory can be constructed from – or read into – Mitchell's work and to express it in terms that bring out its similarities and dissimilarities to other existing theories".

His Chicago colleague, Lloyd Metzler (25th September 1950), complained in correspondence to Friedman that "I do not share your views concerning the relative merits of Mitchell's theory and later theories of the business cycle. I doubt very much whether you would be able to interpret Mitchell as you have done in the absence of later developments by Keynes and others".^{xxix} Friedman later admitted that "I tried ... in the article I wrote on [Mitchell] to sort of play fast and loose and try to construct an analytical theory".^{xxx} But the disagreement with Metzler - like the disagreement with Patinkin prior to 1968 – remained in the private domain.

Likewise, Nicholas Kaldor (1970, 54, n1) referred to an anti-Monetarist tradition, which remained quasi-oral (included his "written and oral evidence" to the 1958

Radcliffe Committee). But Friedman could no longer be dismissed so casually: “It is a tribute to Friedman’s growing influence (in the U.K., as well as the U.S.) that I thought it worth-while to publish a paper solely devoted to a criticism of his views in 1970 which I did not think worth-while twelve years before”.

Twelve years after the publication of *Studies in the Quantity Theory of Money* Patinkin became determined to bring the issue to a head in the public domain. On 27 November 1968, he wrote to Friedman enclosing a draft of an essay that was to be published in the first issue of the *Journal of Money, Credit and Banking (JMCB)* in which he documented what he believed to be the falsity of Friedman’s account of the Chicago tradition (chapter 5 [1969/1981]). Harry Johnson (chapter 8 [1971]), Friedman’s Chicago colleague (1959-1977) and former editor of the *JPE*, expanded upon Patinkin’s essay to provide a wider critique of Friedman’s scholarship and integrity.

Friedman (1962) dedicated *Capitalism and Freedom* to his two children “and their contemporaries who must carry the torch of liberty on its next lap”. Johnson (chapter 8 [1971], 11) concluded that Patinkin had shown “specifically that the Chicago quantity theorists – Simons and Mints - were no different from their quantity theory colleagues elsewhere in these respects. There was no lonely light constantly burning in a secret shrine on the Midway, encouraging the faithful to assemble in waiting for the day when the truth could safely be revealed to the masses; that candle was made, and not merely lit, only when its light had a chance of penetrating far and wide and attracting new converts to the old time religion”.

The Patinkin-Johnson assaults provided anti-monetarist ammunition to many of Friedman’s opponents including Tobin and Paul Samuelson (both associated with the Keynesian Neoclassical Synthesis and the policy process in President Kennedy’s White House). In his *JPE* obituary of Viner, Samuelson (1972, 11) asserted that it was “a perversion of history to believe that there was an oral tradition at the University of Chicago which had already anticipated the valid nucleus of Keynesian analysis”. Tobin (chapter 10 [1981], 30) regretted that “the flaws Johnson detected [in monetarism] have not yet proved fatal”.

1.4 Early Disputes over the Quantity Theory

From its formation, the Chicago Economics department and its journal, the *JPE*, had been involved in heated controversy over the quantity theory. J. Laurence Laughlin the founding chairman of the department and the founding editor of the *JPE* (1892-5) was a relentless critic of the quantity theory (Dorfman 1959, 419; Bornemann 1940, 4). Laughlin’s (1903) work stimulated Kemmerer (1907) and Irving Fisher (1911) to restate and defend the quantity theory (Mehrling 1997, 32). Throughout his career Laughlin engaged Fisher on the quantity theory: Chicago versus Yale “with the sides reversed” (Friedman 1974, 14-15).^{xxx}

Laughlin took his campaign to the public; taking two years leave (1911-13) from Chicago to act as full-time chairman of the National Citizens League to press for banking reform. Friedman (1987) noted that Laughlin’s economics was “marred by dogmatic and rigid opposition to the quantity theory”. Paul Douglas (1972, 42, 334) arrived at the University of Chicago in 1920: “over the years I developed a greater

faith in [Laughlin's] ideas and even less reliance on the rigid quantity theory as the sole factor in the general price level”.

Presumably referring to Keynes (JMK 1983, 11 [1911], 375-76), Laughlin complained about “the recrudescence of the archaic quantity theory of money in Great Britain” (Laughlin 1918, 117). In *The Federal Reserve Act its Origin and Problems*, Laughlin (1933, 222, 229, 231-2) continued to abuse the quantity theory, and Fisher and his “unquestionable error”. Moreover, Laughlin asserted that “the American inflationist school of Irving Fisher has called in for reinforcement ... John Maynard Keynes”. Keynes’ “remarks on the abandonment of the British gold standard and the sacerdotal nature assigned to the influence of the quantity of money on prices are scarcely credible”.

H. Parker Willis acquired his aversion to the quantity theory from Laughlin, his Chicago colleague and former teacher (Dorfman 1959, 314-5).^{xxxii} Laughlin and Willis were two of the architects of the Federal Reserve Act (White 1983, 115). Willis became Secretary of the Federal Reserve Board (1918-22) and was the founding President of the Stable Money Association (Fisher 1934, 106, 360; Sandilands 1990, 64).^{xxxiii} Laughlin, however, had to exert his influence on the Federal Reserve Board via Willis because a Democrat was in the White House and to the “Democrats, Laughlin was *persona non grata*” (Mitchell 1941, 878; Friedman 1987).^{xxxiv}

W. Allen Wallis (1976 [1964], 102) noted that Friedman was “*persona non grata* in the Federal Reserve Board”. Citing Mints (1945), Friedman (1960, 26, 43) argued that the Federal Reserve Board had been “set up by men mostly wedded to that ubiquitous fallacy, the real bills doctrine”. According to Friedman, this fallacy had contributed to the confusion “between what might be called the ‘monetary’ effects of monetary policy – the effect on the stock of money – and the ‘credit’ effects – the effects on recorded rates of interest and other conditions in the credit market ... An ancient example of the confusion is the ‘real bills’ fallacy already referred to. More recently, the change in economic ideas associated with the name of John Maynard Keynes led to an almost complete neglect of the ‘monetary’ effects of monetary policy and concentration on the ‘credit’ effects”.

According to Friedman and Anna Schwartz (1963, 193), one of the consequences of this acceptance of the real bills doctrine was that the Federal Reserve began operations “with no effective legislative criteria for determining the total stock of money. The discretionary judgement of a group of men was inevitably substituted for the quasi-automatic discipline of the gold standard ... Little wonder, perhaps, that the subsequent years saw so much backing and filling, so much confusion about purpose and power, and so erratic an exercise of power”.

Laughlin was an advocate of “an extreme form of the real bills doctrine” (Mehrling 1997, 35-6; see also Friedman and Schwartz 1963, 192, n7). Mints (1950, 6-7; 1945, 5) regarded the real bills doctrine as “almost wholly fallacious”; it was “utterly subversive of any rational attack on the problems of monetary policy”. This aversion to the real bills doctrine (and the incompetent discretion associated with it) linked the dominant monetary economists of the first and second-generation Chicago School “rules party” (Mints and Friedman) to members of the third generation.

Friedman was not the first Chicago economist to offer a restatement of the quantity theory by reading between the lines. In the *JPE*, Willis (1896, 448, 441) noted that the quantity theory was “gradually losing ground amongst economists” but “had lost none of its hold on upon the public mind”. Willis sought to provide “a clear restatement of the quantity theory”. He noted the difficulties involved in such a project but concluded that “by comparison of the various bits of exposition on the subject a theory fairly consistent with itself may, if too great nicety in the use of terms is not demanded, be culled from the recent writings of believers in the doctrine”. Friedman (1972, 12) later repeated Fisher’s rebuttal to Laughlin that “the quantity theory is in essence correct. What it needs is to be restated not rejected”. It was this ‘Restatement’ that Friedman (chapter 2 [1956], 3, 21) provided, by “reading between the lines” as Willis had done six decades before.

Nor was Friedman the first economist to make an assertion about the existence of a quantity theory oral tradition. On two occasions, Keynes made similar assertions: in his review of Fisher’s *Purchasing Power of Money* (1911) and in his obituary of Alfred Marshall (JMK 1983, XI [1911], 375-76; X [1924], 189; see also Whitaker 1975, 164-78). According to Johnson, Friedman self-consciously imitated the tactics of the Keynesian revolution so as to further his counter-revolution.^{xxxv} Johnson (1970, 85-6, 107 n48) speculated that during his year “as a visitor at Cambridge [1954], Friedman became enamoured of the ‘Cambridge oral tradition’ as a concept permitting the attribution to an institution of a wisdom exceeding that displayed in its published work, and unconsciously stole a leaf from Cambridge’s book for the benefit of his own institution”.^{xxxvi}

Edward Cannan (1927 [1922], 311), of the London School of Economics (LSE), noted that to “outsiders” the “Cambridge School of Economics” appeared “as somewhat of a ‘sect’”.^{xxxvii} Cannan also attempted to expropriate the analysis of money demand as an LSE oral tradition after having earlier disagreed with Keynes. In a review of Keynes’ *Tract on Monetary Reform*, Cannan (1927 [1924], 371-2) took up the “gauntlet” which Keynes had thrown down. Cannan argued that it was important for the stability of the financial system that the quantity theory was seen to be part of the body of economic theory which is perceived to be “generally true”. Distracting attention away from the money supply towards money demand would “constantly tend to make people disbelieve in the workings of the quantity theory”.^{xxxviii}

In his rejoinder, Keynes (JMK XI [1924], 415, 419) argued that there could be “both very large and very rapid” changes in “the volume of real balances”. Keynes complained that Cannan was “unsympathetic with nearly everything worth reading ... which has been written on monetary theory in the last ten years”. The “almost revolutionary improvement in our understanding of the mechanism of money and credit and of the analysis of the trade cycle ... may prove to be one of the most important advances in economic thought ever made”. Cannan was guilty of writing “as though the last word had been said years ago in elementary textbooks”. In contrast to Cannan’s work, Keynes commended the “impressive” collection of opinions on the topic provided by J.R. Bellerby (1923) “from many sources”. Cannan (1927 [1924], 384, 386-7) responded by purporting to analyse “what these textbooks really did say”. Referring to Keynes’ 1923 “restatement of the quantity theory” and

heightened perceptions about the importance of hoarding and “the demand for currency” Cannan reported that “rummaging through old lecture notes, I find I was teaching it orally ten years before I put it in a book in 1918”.^{xxxix}

1.5 Other Oral Traditions

Richard Kahn’s English translation of Knut Wicksell’s *Interest and Prices* was published in 1936. It is possible that Keynes learnt of Wicksell’s economics through an oral tradition (Skidelsky 1992, 168).^{xl} Alternatively, Keynes may have read Wicksell (1907) in the *Economic Journal*, or an earlier German edition of *Interest and Prices*, or may have been exposed to Wicksell’s ideas through Kahn (Laidler 1991, 149, 152, n30). Kahn (1933, 1, 14, 6), who visited Chicago in 1932-3, also made an assertion about the existence of an oral tradition. He noted that the marginal revenue curve had been developed by “a number of independent workers”: Edward Chamberlin in Harvard and Austin Robinson in Cambridge. Kahn also “realised that by a curious coincidence precisely the same term was in use at Chicago” by Viner and Theodore Yntema. Kahn also referred to “a general theory” and a Cambridge oral tradition: “Mr Shove has, by way of oral teaching, long been engaged in following up the same lines of thought”.

Patinkin (chapter 5 [1969], 252) and his research assistant, Stanley Fischer, located a Chicago oral tradition in George Bach’s Chicago dissertation on ‘Price Level Stabilisation Some Theoretical and Practical Considerations’. Acknowledging his “deep obligation” to Mints, Simon and Viner, Bach (1940, iii, 36, n1) explained that he was especially grateful to Mints for the “reductions to essentials” of his theory, “although it has been in the nature of an ‘oral tradition’ at Chicago for some time and can be found in many writers, but only more or less obscured. (Note, e.g. Vol 1 of Keynes’ *Treatise*)”. This Chicago oral tradition related to psychological factors which changed the “propensity to hoard consume and invest”, “perverse fluctuations in the volume of money in the system” and “the existence of ‘sticky’ prices throughout large sections of the economy, of which many are cost-prices, so that costs have a tendency to move more slowly than do the more flexible selling prices”.

This sticky price tradition played a pivotal role separating Keynes’ analysis of liquidity preference from his contemporaries in Viner’s (chapter 48 [1936], 240) review of the *General Theory*: “In modern monetary theory [hoarding] is generally dealt with, with results which in kind are substantially identical with Keynes’, as a factor operating to reduce the ‘velocity’ of money. There has been, I believe, common agreement among economists that when price rigidities are important hoarding could present a serious and continuing, and that it is always a significant factor in the downward phase of a short business cycle. Keynes, however, attaches great importance to it as a barrier to ‘full’ employment at almost all times, and apparently irrespective of the degree of flexibility of prices”.^{xli} Friedman (1968, 3) noted that Pigou’s analysis of the behaviour of real money balances exploded “Keynes’ key theoretical proposition, namely, that even in a world of flexible prices, a position of equilibrium at full employment might not exist. Henceforth, unemployment had again to be explained by rigidities or imperfections, not as the natural outcome of a fully operative market process”.

Simons (1948 [1944], 131-2) used sticky prices to build an expectations-augmented-insider-outsider model of the labour market. Where trade unions had power and

labour turnover was costly to firms, insiders could “insulate themselves from the competition of new workers merely by making their costs excessive, that is, by establishing labor costs and *wage expectations* [emphasis added] which preclude expansion of production or employment in their field”. Thus outsiders (“new and displaced workers”) would not “typically migrate” to such firms because “jobs cannot be had”. The privately optimal strategy for trade unions was to exclude “lower-wage competitors”. Douglas (1935, 54-5, 61), citing Gardiner Means, also emphasised the causal importance of “stickiness in prices” in his *Controlling Depressions*. Thus “an examination of the actual facts of industry” revealed that “rigid prices in the face of falling costs” were “probably the chief initiating causes of the present depression.”^{xliii}

According to Martin Bronfenbrenner, in the late 1930s “Simons agreed with Means that administered prices were delaying recovery and should come down. (But Simons was more down on trade union wages than on industrial prices)” (cited by Samuels and Medema 1990, 169, n55). Means used this analysis to implicitly demonstrate the invalidity of the quantity theory: “In the modern economy, the widespread presence of inflexible prices makes any changes in the relation between the supply of money and the demand for money under given price conditions a seriously disorganising force”. In the “old flexible-price economy” changes in money demand or supply would lead to price changes which would leave production relations “essentially undisturbed”. In the modern economy, a monetary contraction would dislocate the price relationships and produce a decline in output in the inflexible price sector (Ware and Means 1936, 79-81). A “serious and continuing depression” could follow such a policy. Alternatively, the same outcome could result from the monetary authorities failing to allow the money supply to keep pace with money demand, a scenario that Means (1935, 409-10) advanced as a partial explanation of the Great Depression. Thus a stabilising monetary policy would require the authorities to adjust the money supply so as to eliminate any pressure towards “a *general revision* of prices either upwards or downwards” [emphasis in original].

1.6 Chicago and the Keynesian Revolution

In his AEA Presidential Address, Knight (1951, 2-3) hinted at the existence of a Chicago oral monetary tradition: “It has long been my habit to mention to classes the sinister import of such intellectual phenomena as ... the perpetual popular demand for making capital cheap by manufacturing money”. Knight noted that during his career several “movements” had denigrated the term “orthodox” as “a ‘cuss-word’, an epithet of reproach ... the latest ‘new economics’ and in my opinion rather the worst, for fallacious doctrine and pernicious consequences, is that launched by the late John Maynard (Lord) Keynes, who for a decade succeeded in carrying economic thinking way back to the dark age”.

Keynes read between the lines to construct his “classical” straw man caricature.^{xliiii} Keynes (1936, 3, n1, 175, 177-8) opened the *General Theory* with the admission that much of what followed was possibly a “solecism” with respect to his characterisation of the “classical” economists in general and the “Classical Theory of the Rate of Interest” in particular. But the absence of compelling textual evidence did not prevent Keynes from establishing a potent rhetorical device. Thus Alfred Marshall must have believed that the interest rate was determined by equilibrating investment and savings although this explanation “is not to be found in Marshall’s *Principles* in so many words. Yet his theory seems to be this, and it is what I myself was brought up on ...

[Marshall] surely believed, although he did not expressly say so, that aggregate savings and aggregate investment are necessarily equal”.^{xliv}

In his review of the *General Theory*, Knight (chapter 50 [1937], 101, 114, 122, n22) complained that Keynes’ references to “classical economists” were “the sort of caricatures which are typically set up as straw men for purposes of attack in controversial writing”. He sought to defend his own Chicago teaching from Keynes’ influence: “In the great majority of cases the doctrines so labelled [as classical] seem to me to be quite at variance with, and often contradictory to anything I was ever taught as academic doctrine in any modern sense ... and they are certainly alien to anything I have ever taught as such, and I have been rated, and have supposed myself, an adherent of the general type of position referred to by the term. On the other hand, many of Mr Keynes’s own doctrines are, as he would proudly admit, among the notorious fallacies to combat which have been considered a main function of the teaching of economics”. Knight noted that “where once it was necessary in writing to pose as merely restating and interpreting doctrine handed down from the Fathers, the surest way to public interest and acclaim now lies through pulling down and overturning everything established or accepted”.

Patinkin (like Friedman) offered a ‘Restatement’ of the doctrines of the Chicago Fathers. In ‘Price Flexibility and Full Employment’ Patinkin (1952 [1948], 278), then an assistant professor at Chicago, concluded that “in a static world with a constant stock of money, price flexibility assures full employment ... But in the real dynamic world in which we live, price flexibility with a constant stock of money might generate full employment only after a long period; or might even lead to a deflationary spiral of continuous unemployment. On either of these grounds, a full employment policy based on a constant stock of money and price flexibility does not seem to be very promising. All that this means is that a full employment policy cannot be the fairly simple one of maintaining a constant stock of money and waiting for the economic system to generate full employment automatically through price declines. Other policies will be required. One possible alternative policy can be inferred from the Haberler-Pigou analysis itself: there are two ways to increase real balances. One is to keep the money stock constant and permit prices to fall. An equally effective way is to maintain the price level constant, and increase the stock of money by creating a government deficit”. Patinkin then added a footnote: “Considered from this perspective, the Pigou analysis presents in a rigorous fashion part of the theoretical framework implicit in the fiscal-monetary policy of the Simons-Mints position”.

Patinkin’s Restatement of the doctrines of the Chicago Fathers made an important contribution to the Keynesian Neoclassical Synthesis. With respect to “the Keynesian-classical polemic” Patinkin (1952 [1948], 253, 257-8, 260) believed that he had demonstrated that “these two camps have really come closer and closer together”. Patinkin also asserted that “a successful restatement of the classical position must demonstrate the existence of some automatic mechanism which will always bring about full employment ... To the Keynesian negative interest rate argument replies had been made by both Haberler and Pigou ... by changing the real value of cash balances, desired full employment savings and investment can always be equated at a positive rate of interest”.

In 1947, Friedman provided Patinkin with detailed ('early and often') comments on at least two drafts of his paper. When the essay was reprinted in an AEA volume edited by Friedrich Lutz and Mints (1952), Patinkin (1952, 252, n, 261) added four sentences "as a result of discussions with Milton Friedman" which followed from this discussion of cash balances: "It should also be emphasised, as Haberler does, that although this argument has been presented above as an answer to Keynes, it is of much older origin. In particular, it is implicit in classical theorising on the quantity theory of money. The crucial step in this analysis, it will be recalled, comes at the point where it is argued that as a result of increasing the amount of money in the economy, individuals' cash balances are larger than desired at the existing price level, so that they will attempt to reduce these real balances by increasing their money expenditure. The main contribution of Haberler and Pigou is to show how this set of forces must, and can, be introduced into the Keynesian analytical apparatus".

The year before the *General Theory* was published, Knight (1935, 236) described the economic doctrines of "the classical school" as "a mixture of a more or less scientific analysis of a price economy with what is really political propaganda for *laissez-faire*". But as Kenneth Boulding (1956, 136, 138), one of Friedman's fellow Chicago graduate students noted, the Keynesian "bulldozer" had left "the orthodox laissez faire man" stranded. Alvin Hansen played the role of the "American Keynes". Simons wrote to Keynes describing himself as "a vigorous but inconspicuous participant in recent monetary-fiscal controversies" adding that he was "bitterly anti-Hansen and, if not wholly anti-Keynesian, utterly opposed to your more extreme American disciples" (cited by Patinkin (chapter 46 [1981/1979], 304-5). Hansen favoured a "dynamic approach" - which stood in contrast to the passive acceptance of "the play of 'natural' forces ... many economists are coming to think that action along these traditional lines would by itself be wholly inadequate. It is increasingly understood that the essential foundation upon which the international security of the future must be built is an economic order so managed and controlled that it will be capable of sustaining full employment" (Hansen and Kindleberger 1942, 467). In response, Simons (1948 [1942], 199) referred disparagingly to "Hansen and his school".

Hansen (chapter 52 [1946], 73) also saw the post war cleavage widening: "It may now be useful to contrast the Mints-Simons program with that urged by [Abba P.] Lerner". Howard Ellis (chapter 53 [1946], 74) saw the dispute as a confrontation between "a political wing favoring a very large amount of government activity, and another wing which, mistrustful of the concentrated power which the bureaucracy would possess under these circumstances, would reduce it to a minimum".^{xlv}

In contrast, Patinkin (1952 [1948], 282) thought that "although these positions are quite distinct theoretically, their policy implications are very similar ... Thus the policies may advocate tax reductions to stimulate consumption and investment (the Simons-Mints school); or may insist on direct government investment to supplement private investment (Hansen, *et al.*)". But Friedman (chapter 2 [1956]) found the Simons-Mints school to be the inspiration for a policy proposal (the x% money growth rule) which contrasted markedly with the consensual policy implication derived by Patinkin.

Thus four paragraphs of Friedman's introductory essay launched an intense and wide-ranging debate that spawned important contributions to theory, methodology and the

history of thought, and that also profoundly influenced popular ideology and political action. These two volumes are devoted to all these implications. Section one of this volume reconstructs the initial controversy: Friedman's initial essay (chapter 2 [1956]) plus an essay on 'The Monetary Theory and Policy of Henry Simons' (chapter 3 [1967]) and the offending encyclopaedia entry on 'The Quantity Theory of Money' (chapter 4 [1968]). Chapters 5 ([1981/1969]) and 6 ([1974/1972]) constitute the basis of Patinkin's case; chapter 7 (1974/1972) Friedman's only published response. In Chapter 8, on 'The Keynesian Revolution and the Monetarist Counter-Revolution', Johnson ([1971]) expands on Patinkin's original essay. The following chapters by David Laidler (chapter 9 [1981]) and Tobin (chapter 10 [1981]) provide some additional background about the nature of the monetarist assault on orthodoxy. Interestingly, Laidler – a monetarist, and a distinguished monetary historian – takes Patinkin's side of the debate. Chapters 11 and 12 set the dispute in the wider context of the Patinkin-Friedman friendship and the political and ideological disputes of the time.

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NOTES

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ⁱⁱ The term "monetarism" was not apparently coined for another decade, by which time it had become a real threat to the Keynesian intellectual hegemony.

ⁱⁱⁱ Both Patinkin (1981, 261) and Rose Friedman (Friedman and Friedman 1998, 38) took Mints' Economics 331, "Banking Theory and Monetary Policy". According to Milton Friedman's academic transcript he did not attend that course for credit, but he recalls sitting in on the lectures (no reading lists for 331 have apparently survived in the Friedman Papers).

^{iv} One of the few changes that Friedman made between the first and the final draft of his December 1967 American Economic Association Presidential Address was to delete the reference to Knight in the opening sentence: "My revered teacher, Frank Knight, was fond of quoting Josh Billing's wry comment 'The trouble with most people ain't ignorance; it's what they know that ain't so'. That describes my aim to night: to persuade you that something you know simply isn't so".

^v Patinkin (chapter [1969], 256; chapter [1986], 120) misquotes this sentence twice. In the first instance Patinkin misquotes "affected" as "influenced"; in the second he misquotes "analysis" as "theory".

^{vi} Both Friedman and Reagan arrived in Chicago in autumn 1932; Reagan (1990, 20) "hitchhiked to Chicago ... with visions of getting a job as a radio announcer". Starting in 1933, President Roosevelt helped re-establish confidence in the monetary system through "the warm and supportive simplicity of his Fireside Chat lessons"

administered through the radio (Karl 1983, 103). It is interesting to note that the Chicago oral tradition was supposed to exist just as the radio was transforming mass communication in the United States. Ten million households in the U.S. had a radio in 1929; twenty-seven million in 1939 (Hobsbawm 1994, 195-6). During this period, an amateur monetary reformer, Father Charles Coughlin, emerged as a “radio priest” (Laidler 1999, 229, n20). Coughlin’s biggest breakthrough came when he acquired radio access to the Chicago and Cincinnati areas in 1929-30. By early 1934, *Fortune* estimated that he had 10 million regular listeners, probably the largest in the world (Reeve 1943, 132-3, 136).

^{vii} When Keynes (JMK XX 587) arrived in Chicago in June 1931 he found President Hoover’s “stock stood incredibly low. There was not a soul who would say good word for him”.

^{viii} According to surviving lecture notes, at Harvard in 1903-4, Franklin Roosevelt had been taught that “The quantity theory holds” (cited by Fustfeld 1956, 31). In 1932, Roosevelt was re-introduced to the quantity theory in person by Irving Fisher (Tugwell 1968, 98).

^{ix} In contrast, Reagan (1990, 230-1, 311) had both faith and a lineage. He was aware that in 1981 he was facing “what many economists called the greatest economic emergency since the Great Depression” but he had “faith – faith in those tax cuts and faith in the American people”. His supply side policies were based on his own oral tradition (“you say ‘I’m not gonna work for six cents on the dollar’”) with a lineage descending from “that philosopher, Khaldoon” a fourteenth century Muslim writer on taxes.

^x Friedman (1987) noted that J. Laurence Laughlin, the founding chairman of the University of Chicago Economics Department, exerted “no lasting influence on economic thought”. He might have made an indirect impact: in 1894-5, John Neville Keynes considered but rejected an offer made by Laughlin to accept a chair at Chicago (Skidelsky 1983, 65; Moggridge 1992, 16). It is interesting to speculate what the consequences for the modern configuration of economics would have been had the Keynes family relocated permanently to Chicago, and had Friedman’s parents not migrated (separately) to the United States (also in 1894-5).

^{xi} According to Schumpeter (1954, 223-4), the Physiocrats “formed a group united by what amounted to a creed; they were indeed what they were called so often, a sect ... [with] vows to One Master and One Doctrine ... [they were] disciples who absorbed and accepted the Master's teaching with a fidelity for which there are but two analogues in the whole history of economics: the fidelity of the orthodox Marxist to the message of Marx, and the fidelity of the orthodox Keynesians to the message of Keynes ... they founded discussion groups, worked upon individuals and agencies in key positions (the parliaments especially) and produced a large quantity of popular and controversial literature [and] economic journalism”. du Pont and his fellow disciples were “thoroughly alive to the importance of propaganda”.

^{xii} Karl Popper favoured the title “Periclean Society”; Aaron Director preferred “Adam Smith-Tocqueville” (Hartwell 1995, 43).

^{xiii} Ludwig von Mises (1974 [1952], 170) recalled that at a meeting of the Mt Pelerin Society, T.S. Ashton, a prominent historian, presented a paper which suggested that much contemporary history was mere ideology, consisting of “tortured facts” and “concocted legends”. Hayek also berated the “appalling effects of the use of history as propaganda” and there was a discussion about history being able to “demonstrate the importance of freedom in the past” (Hartwell 1995, 40-1, 38). These concerns led to a 1954 University of Chicago volume on *Capitalism and the Historians*. One essay focused on Charles Beard’s responsibility for cultivating the ‘Anticapitalist Bias of American Historians’ (Hacker 1954). In his introductory essay Hayek (1954, 7, 9, 4) referred to the “socialist interpretation of history which has governed political thinking for the last two or three generations ... Most people would be surprised to learn that most of what they believe about these subjects are not safely established facts but myths, launched from political motives”. Historical beliefs were sometimes “the effects rather than the cause of political beliefs. Historical myths have perhaps played nearly as great a role in shaping opinion as historical facts”. Hayek (1967 [1944], 1) prefaced *The Road to Serfdom* with Acton’s dictum: “few discoveries are more irritating than those which expose the pedigree of ideas”. In his review of Simons’ *Economic Policy for a Free Society* Michael Oakeshott (1977 [1949], 49-50) argued that it was vital to combat the “deplorable ignorance of the nature of libertarian tradition itself” because this lack of understanding “threatens liberty”.

^{xiv} Ronald Teigen’s thesis was supervised by Albert Ando and accepted by Robert Solow as chair of the graduate studies committee (both Ando and Solow opposed monetarism). In Solow’s (1964, 710-1) judgement “Although only a small minority of the profession is persuaded by his opinions, around any academic lunch table on any given day, the talk is more likely to be about Milton Friedman than about any other economist”. Teigen (1971, 244) subsequently admitted that it was “not obvious why monetarism had suddenly become so popular”. Johnson’s (chapter 8 [1971]) critique was approvingly cited and Teigen asserted (without any supporting evidence) that Patinkin (chapter 5 [1981/1969]) had “shown” that Friedman’s “alleged Chicago oral tradition” was false.

^{xv} Arthur F. Burns (1929, 562) noted that it was “true” that economists “cling to one or another version of [the Quantity Theory] doctrine”.

^{xvi} Friedman (1968, 1) later used this analysis to denigrate earlier analyses: “Monetary policy was [perceived as] a string ... You could lead a horse to water but you could not make him drink. Theory by aphorism was soon replaced by Keynes’ rigorous and sophisticated analysis”. Friedman and Schwartz (1963, 410-11, 171) reinterpreted the Great Depression as a “Great Contraction” with the money supply falling, rather than rising as Kemmerer suggested. They found Kemmerer’s work “depressing” and unperceptive. They concluded that his involvement in the establishment of the Federal Reserve System led him to believe that the system he had helped create had “once and for all solved problems of liquidity”. They also noted that during the agitation to establish the Federal Reserve System, Kemmerer’s contribution to the National Monetary Commission was a monograph on *Seasonal Variations in the Demand for Money and Capital in the United States*. Friedman’s

other major ideological-intellectual opponents were also associated with “systems”: the Bretton Woods system and the Keynesian system.

^{xvii} Kemmerer (1934a, 174) was obviously proud of having been a financial adviser to eleven countries. Roger Sandilands (correspondence 26 March 2002) recalls Lauchlin Currie complaining that Kemmerer’s advice had left a “wretched legacy” to Latin American.

^{xviii} Keynes Papers, L/K/35-8.

^{xix} Roy Harrod (1951, 460) criticised Keynes for seizing on “isolated passages [from the mercantilists] to find wisdom that was not really there”. In response to Harrod’s attempt to persuade him to treat these heretics with less respect, Keynes (JMK XIII [1935], 650-1) wrote to Joan Robinson explaining that Harrod “strongly objected to chapter 26 [ultimately chapter 23 of the *General Theory*] as a tendentious attempt to glorify imbeciles. I should like to know how it strikes you”. Robinson replied that “I hope you won’t let Roy intimidate you about 26. I think it is important to have it, and it is very enjoyable to read. I don’t think you have overstated matters at all”.

^{xx} Economists (including Patinkin) often use biblical analogies: Knight (1940), for example, published an essay on “‘what is Truth’ in Economics?” Patinkin (1995, 388-9) highlighted his studies at the Hebrew Theological College at Chicago (1933-43) as an influence on his historical studies. Patinkin (1990, 224, n20) detected religious overtones in post-Keynesian writings. With respect to the Keynesian revolution, Patinkin (1993, 647) referred to the struggle “for the privilege of having been vicariously present at that Moment of Truth ...”. Perry Mehrling (2001a) recounted that Jacob Marshak declined an approach to migrate to Palestine, suggesting Patinkin (“an ardent Zionist”) as his replacement. Patinkin’s first thesis topic was ‘The International Economic Position of Palestine’. Patinkin’s widow informed me that the Federal Bureau of Investigation prevented her and her husband from migrating to Israel in spring 1948, because they had been procuring military hardware for the shortly-to-be-established State of Israel. For a discussion of both ‘Patinkin and Talmudic Readings in the History of Economics’ and the role of the “Oral Torah” in the Jewish tradition, see Saunders 2001.

^{xxi} Don Patinkin Papers, Box 20.

^{xxii} Patinkin (1979, 154) noted that Friedman had previously effected an intellectual revolution by having “monetary policy” redefined as relating to variations in the money supply rather than changes in interest rates.

^{xxiii} Irving Fisher was an earlier advocate of monetary rules.

^{xxiv} Simons (1950, 155, n23) referred to himself as “not enough of a scholar” to describe the sources of his ideas and having “no fear that bibliophiles will point out an army of unacknowledged precursors”. The only source for his ideas on income taxation that he wished to acknowledge was his undergraduate teacher in accounting. Joan Robinson (1962, 77) noted that “Keynes himself lacked the scruple of a scholar”.

^{xxv} Don Patinkin Papers: <http://scriptorium.lib.duke.edu/economists/patinkin>.

^{xxvi} Don Patinkin Papers, Box 32.

^{xxvii} In 1933-4, Friedman attended Mitchell's Columbia University course on 'Types of Economic Theory', lecture notes for which have survived for the year 1934-5. In his final two sentences of the course Mitchell stated that "the people who are gradually accumulating this factual knowledge are ... laying the basis and actively contributing to our economic theory at large. I hope that every member of the class in the future will have some part in this work of developing economic theory" (Gould and Kelley 1949, 300).

^{xxviii} In the early 1930s, Mitchell told Erik Lundberg (1994, 497) that "we need another hundred years of empirical research and knowledge before we can generalise about causal relations on your level".

^{xxix} Metzler continued: "I was quite strongly impressed, as I read your paper, by the similarity between the theory which you have attributed to Mitchell and Kalecki's theory of the business cycle ... the similarity between your version of Mitchell and chapter 6 of Kalecki's book *Essays in the Theory of Economic Fluctuations*, is so striking that seems to me that it might be advisable to make a footnote to his work somewhere in your paper". Friedman (30th October 1950) replied that he was "almost ready to wager that there is no copy in Paris" where he was currently based and was therefore unable to refer to Kalecki's book. Milton Friedman Papers, Correspondence, Meltzler file.

^{xxx} In an interview with Jeff Biddle (October 6, 1993). I am grateful to Biddle for providing me with a transcript of this interview.

^{xxxi} In 1879, as an instructor in political economy at Harvard, Laughlin (1924, 307) listened to a paper on "Taxation" presented by two undergraduates, Theodore Roosevelt and Robert Bacon, a future president of United States and his Secretary of State. Around the same time, Laughlin (1850-1934) heard Simon Newcomb deliver some invited lectures at Harvard. It was Newcomb to whom Fisher (1911) dedicated *The Purchasing Power of Money*. When an Iowa Senator declared that the University of Chicago "smelled of [Rockefeller] oil" Laughlin (1906, 41) defended academic freedom using a monetary analogy: an elastic currency was required to reflect the state of the business cycle, just as tolerance was required to accommodate unpopular views. His last academic appointment to Chicago was Jacob Viner (Friedman 1987).

^{xxxii} Wesley Clare Mitchell told Eli Ginzberg (1997, 3) that Willis had never deviated from the "hard money" views which he had acquired as a Chicago graduate student under Laughlin.

^{xxxiii} Willis (1874-1937) was one of the first to visit Roosevelt after the 1932 election (Tugwell 1972, 205). From the outset of the Depression, Willis blamed Federal Reserve officials for the panic (Davis 1971, 35). He denounced the 1935 Eccles banking bill as "the most dangerous, the most unwarranted, the most insidious measure" of the New Deal (cited by Schlesinger 1960, 297). During Friedman's time

at Columbia, Willis' Banking Seminar produced a collaborative analysis of *The Banking Situation* (Willis and Chapman 1934). Friedman's (1956) *Studies in the Quantity Theory of Money* was the collaborative product of his Chicago Workshop in Money and Banking, founded in 1953. Friedman attributed the "success" of his Workshop to the rule "no representation without taxation" (Friedman and Friedman 1998, 208).

^{xxxiv} Laughlin was a "staunch conservative and Republican" (Neff 1934, 4, 1).

^{xxxv} Johnson (1975, 124) concluded that in the 1950s, Cambridge people were "perverting economics in order to defend intellectual and emotional positions taken in the 1930s". He was implicitly accusing Friedman of perverting economics by pretending to be merely defending an intellectual position (or framework) that had not been (uniquely) taken in Chicago in the 1930s.

^{xxxvi} In the year before Friedman's visit to Cambridge a *JPE* essay on the "checkered career" of the concept of the demand for money also referred to "the oral tradition at Cambridge" with respect to Marshall's use of the "demand-to-hold" approach in the decades before the publication of his 1923 *Money, Credit and Commerce* (Gilbert 1953, 145). In a 1871 manuscript on the theory of money, Marshall criticized the approach to the quantity theory which sought to explain the value of money by reference to its supply and its velocity. Marshall objected on the grounds that "'the rapidity of circulation' is not the most convenient thing to be made the basis of our investigations". Specifically, John Stuart Mill had not adequately delineated the "balancing of advantages" which underpinned the demand for money (cited in Whitaker 1975, 166-7).

^{xxxvii} The Keynes-Cannan dispute had been preceded by an earlier "institutional" dispute between Cannan and Alfred Marshall (Dahrendorf 1995, 211-3; Coats 1967). Lionel Robbins (1971, 105, 85, 83) recalled that the "slogan" at Cambridge in the 1920s was that it was "all in Marshall" whereas Cannan emphasised "this or that weakness of 'old Marshall'".

^{xxxviii} Cannan (1932, 369; 1927, xiii, 253, 305, 330, 417) explained that "General unemployment appears when asking too much is a general phenomenon". He devoted his professional life to the cause of removing the "scales ... from the eyes of the people of Europe" until they forced disinflation upon their reluctant governments by crying: "Burn your paper money, and go on burning it till it will buy as much gold as it used to do". The "thorough deflationist" cure for the "diarrhoea of paper" would be disagreeable "but so is giving up the practice of over-indulgence in intoxicating liquor". With respect to the unemployed 'byproduct' of this deflation: "Expectation of Government assistance only hinders the mobility of existing workers".

^{xxxix} However, Cannan's attempt to establish an LSE oral tradition is not supported by an examination of the 1918 edition of *Money*. Cannan (1918, 63) explained that economists had "long been familiar" with the idea that the value of money depended "upon the various influences which affect demand and supply" and that to restrain prices rises the public should "insist on adequate limitation of the supply of money". In the eighth edition of *Money* (after the publication of Keynes' *Treatise*), Cannan (1935, 76, 92) explained that "the Quantity Theory of the value of money singles out

quantity as the thing on which the value of money may be said to depend, other things (including Demand) remaining the same. It would be very astonishing if this were not true". Cannan believed that the demand for money was fairly stable: "in the absence of anticipation of future changes the elasticity of demand for money is 'equal to unity'". Prior to his death on 8th April 1935 Cannan's book on *Money* went through eight editions (the Preface to the last edition was dated April 1935). During his time at the LSE (1922-25), Lauchlin Currie (1978, 541) found inspiration in Cannan's insistence of getting "behind the Money Veil" (see the introductory chapter, part two, below).

^{x1} Erik Lundberg (1994 [1934], 48) recalled that during his time at Chicago (1931-2) there was "a real boom of interest in Swedish economics ... especially Wicksell's thoughts". Wicksell dominated the Stockholm Political Economy Club both through his writings and through "the Wicksellian oral tradition. This oral tradition was probably most important in monetary theory. It is well known that Wicksell in his last years expressed quite severe criticism of his own earlier work in the quantity theory tradition. At that time Wicksell actually turned against the quantity theory and attempted to explain the development of the price level without any reference to the monetary factors focused on in the equation of exchange" (Henriksson 1989, 63, 67).

^{xli} This sticky price tradition can be found in Simons' (1948 [1934], 64-5) 'Positive Proposal for Laissez Faire' in which he explains that it was important to consider "how different possible [monetary] policy rules would operate given the basic inflexibilities in the price structure ... no monetary system, however perfectly conceived and administered, can make a free-enterprise system function effectively in the absence of reasonable flexibility in the price structure". It can also be found in Simons' (1933, 550-1) review of Charles Beard's *America Faces the Future*. It was, Simons stated, "perhaps an incontrovertible position that the excess of booms and depressions are attributable, on the one hand, to the system of commercial banking and, on the other, to an exceeding and increasing 'stickiness' in many parts of the price structure ... many prices have become quite inflexible and especially resistant to downward pressure ... Mr Beard beseeches us to adopt measures which will make the 'sticky' prices as much stickier as possible. To adopt such measures, while neglecting the problem of money and credit, is to assure the next depression will make the present one seem altogether trivial". It was a tradition that Chicago's Greg Lewis (1946, 668-9) referred to in his Memorial to Simons. Some policy implications of this sticky price tradition were outlined by Neil Jacoby, a Chicago Assistant Professor of Finance: "I think that government policy should be bent towards trying to get rid of these sticky, rigid elements rather than trying to increase them" (Gideonse, Hansen, and Jacoby, 1938, 10).

^{xlii} In Knight's (1941, 59) 'The Business Cycle, Interest and Money: A Methodological Approach' there is a discussion of sticky intermediate prices and wages: "Wages are notoriously sticky, especially with respect to any downward change in the hourly wage-rates, which is the important fact in the unit cost or marginal cost of products".

^{xliii} There is also another oral or more precisely an ethereal tradition in the *General Theory*: "Madmen in authority, who hear voices in the air, are distilling their frenzy

from some academic scribbler from a few years back” (Keynes 1936, 383).

^{xliv} In 1956, Keynes’ caricature was defended by John Dunlop on the same grounds chosen by Friedman: “Keynes’ General Theory ... was soon hailed as the manifesto of a revolution ... With respect to public policy, Keynes and his followers scored a signal victory over the ‘price flexibility school’ but contrary to popular impression (carefully nurtured by Keynes’ disciples), this latter was a rather small and relatively powerless group ... Keynes attacked the Pigovian theory – the ‘classical’ thought which had by then reigned supreme for but three years. In dealing with the pre-Pigovian theoretical treatment of wage reductions which was so meagre, Keynes could only pummel that convenient but difficult to define strawman, Say’s Law. It is questionable whether Keynes’ caricature could be considered a fair presentation of the views of his postclassical predecessors”. James Schlesinger (1956, 582, n7), the author of this commentary, then added the following footnote: “Dunlop has intimated to me that this statement is unfair to Keynes. He points to a strong ‘body of oral tradition’ in favor of wage reductions and suggests that the noted article of Edwin Cannan, ‘The Demand for Labour’ (EJ Sept 1932, 357-70) is illustrative of this general attitude”. ‘The Demand for Labour’ was Cannan Royal Economic Society Presidential Address delivered on 26th May 1931 (four days before Keynes left for a visit to the University of Chicago).

^{xlv} But as Ellis noted, Mints and Hansen “agree completely” about the need for federal deficits to combat depressions, though Hansen stressed increasing expenditures while Mints stressed reducing taxes.