Edward Nelson: *Milton Friedman and Economic Debate in the United States, 1932-1972.* Two Volumes.
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Edward Nelson knows more about Milton Friedman's economics than anyone else alive. In two weighty volumes, he begins to share that knowledge with us.

"Begins" because Nelson plans to follow this pair of books with another: a third volume surveying Friedman's post-1972 activities and a fourth focusing on Friedman's international economics and contributions to policy debates in the United Kingdom.

But, as their titles indicate clearly, these first two books review and evaluate Friedman's writing and research, broader professional activities, and contributions to economic policy debates in the United States over a forty-year period spanning 1932 and 1972. The starting date coincides with Friedman's arrival as a master's student in economics at the University of Chicago – hence, the beginning of his training as a professional economist. The second volume ends as Friedman, preparing for open-heart surgery, receives a phone call, with best wishes, from President Richard Nixon.

More generally, Nelson's endpoint reflects that by December 1972, Friedman's major academic contributions were complete, although many of his hypotheses would be validated and extended in the years that followed by Robert Lucas, Thomas Sargent, and others at the vanguard of the rational expectations revolution in macroeconomics. On the other hand, public opinion circa 1972 remained inclined to view market institutions and outcomes with suspicion. Government spending and inflation were on the rise, and price controls appeared to have become a permanent fixture in the American economy. Friedman's profound influence on American public policy came only later.

Potential readers should know: these two volumes are written by a professional economist for professional economists and serious students of economics. Nelson assumes that all members of his audience possess a basic familiarity with the macroeconomics, not just of Friedman's time but also of our own, as embodied in the dynamic and stochastic New Keynesian models presented in graduate-level textbooks like Woodford (2003), Galí (2015), and Walsh (2017). Nonspecialists and college students looking for an introduction to Friedman's work and ideas should start with *Capitalism and Freedom* instead. Then, they should read the most famous chapter, on "The Great Contraction, 1929-33," from Friedman's magnum opus with Anna Jacobson Schwartz, *A Monetary History of the United States, 1867-1960*, reprinted as a separate volume that is freely available from the website of the National Bureau of Economic Research.[2]

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[2] https://www.nber.org/books-and-chapters/great-contraction-1929-33.

Though presented physically in two volumes, Nelson's study consists, functionally, of three parts. Parts 1 and 3 move chronologically, the former covering Friedman's "pre-monetarist period" from 1932 through 1950 and the latter his "monetarist years" from 1951 through 1972. Each chapter from these two parts is broken down, in turn, into three subsections with self-explanatory headings: "events and activities," "issues," and "personalities." This approach doesn't always succeed at drawing completely clean divisions: after all, Friedman's activities often included debates on crucial issues with various personalities. Overall, however, it works quite well, both to provide natural rest points for those who want to read the books straight through and to guide others who wish to pick and choose what to focus on. Throughout, Nelson's writing is clear and informative. His style is always engaging.

A comprehensive bibliography is essential in a work of this length and complexity, and Nelson supplies one, covering newspaper articles and other media appearances as well as scholarly papers and books. If I have a small complaint about the presentation, it is simply to say that I would have preferred footnotes to the endnotes that are provided: there are thousands of them, requiring careful readers to expend considerable time and energy flipping from the text to the notes and back again. This may be just a matter of taste, however: some David Foster Wallace fans might relish the experience.

Readers of the two chronological parts – even those who have already studied carefully Friedman's major works – *A Theory of the Consumption Function*, the *Monetary History*, and his 1967 Presidential Address to the American Economic Association, published in the March 1968 issue of the *American Economic Review* under the title "The Role of Monetary Policy" – will learn much more from Nelson about the incredible breadth and diversity of Friedman's academic research.

As Nelson points out, Friedman is not the only economist to have been awarded both the AEA's John Bates Clark Medal and the Sveriges Riksbank's Nobel Prize, but Friedman does represent the exceptional case of an economist who received these two high honors for entirely separate bodies of work. In particular, Friedman's 1951 Clark Medal acknowledged his work in economic theory, especially with Leonard J. Savage on decision-making under uncertainty. Though largely overshadowed today by contributions made by John von Neumann and Oskar Morgenstern and by Kenneth Arrow and Gerard Debreu, the Friedman-Savage program helped in establishing the expected utility framework as economists' benchmark for describing preferences over risky alternatives.[3]

Curiously, Friedman's Clark award marked the end of the mathematically sophisticated work that placed him, at an early stage in his career, among the leaders within mainstream economics. Friedman reassumed the role of outsider, instead, as both the economic issues he addressed, and the style in which he addressed them, shifted markedly in the 1950s. But, of course, it was the even more important contributions that followed from this shift – the permanent income hypothesis, the *Monetary History*, the natural rate hypothesis, and the development of his

[3] Moscati (2016) discusses this point in more detail. As noted by Nelson (Vol.1, p.132n61), Friedman's *Price Theory* textbook describes his own work with Savage as breaking importantly from Frank Knight's earlier analysis that distinguishes between "risk" and "uncertainty."

quantity-theoretic or monetarist approach to macroeconomic analysis – that formed the basis for Friedman's 1976 Nobel Prize.

And that is not all – not nearly all. Throughout his chronological chapters, Nelson skillfully describes and evaluates Friedman's many other research projects, including but not limited to:

1. Friedman's work in the late 1930s as research assistant to, graduate student of, and finally collaborator with, Simon Kuznets, which led to the 1939 publication of the co-authored NBER report, *Incomes from Independent Professional Practice, 1929-1936*.

2. Friedman's work as an economist at the US Treasury's Division of Tax Research, which adhered to the traditional Keynesian view associating inflation with fiscal policy that Friedman would later reject, but which led to two *AER* articles on inflation and taxation in 1942 and 1943.

3. Friedman's 1946 *Roofs or Ceilings?* pamphlet with George Stigler, arguing against rent control.

4. Friedman's 1948 *AER* article, "A Monetary and Fiscal Framework for Economic Stability," which followed in the Chicago tradition of Henry Simons both by advocating for a 100 percent reserve requirement on bank deposits and by introducing Friedman's first monetary policy rule, calling for countercyclical deficits to be financed through money creation.

5. Friedman's 1960 book, *A Program for Monetary Stability*, which revised substantially the policy prescriptions from 1948 and presented, instead, Friedman's case for a constant money growth rate rule.

6. Friedman's *Price Theory* textbook, first published in 1962 and revised in 1976.

7. Friedman's work with David Meiselman on the relative strength of monetary versus fiscal policy, first presented in the Commission on Money and Credit's volume, *Stabilization Policies*, and continued in debates with critics in the November 1964 issue of the *Review of Economics and Statistics* and the September 1965 issue of the *AER*.

8. Friedman's regular columns for *Newsweek* magazine, rotating with Henry Wallich and Paul Samuelson, beginning in 1966.

9. Friedman's 1970 "Post Hoc Ergo Propter Hoc" exchange with James Tobin in the *Quarterly Journal of Economics*.

10. Friedman's 1970 *Journal of Political Economy* article, "A Theoretical Framework for Monetary Policy Analysis," which provoked a set of critical comments and responses in a 1972 special issue of the *JPE*, eventually collected in the 1974 book, *Milton Friedman's Monetary Framework: A Debate with His Critics*, edited by Robert Gordon.

In sum, these chronological chapters from Nelson's books accomplish exactly what they set out to achieve: educating readers most thoroughly on Milton Friedman and his lifetime of contributions to economics. In doing so, these chapters also document, in vivid detail, Friedman's interactions with leading economists, including Clark Warburton, Paul Samuelson, James Tobin, Karl Brunner, Robert Lucas, and Thomas Sargent, and major political figures, including John F. Kennedy, Barry Goldwater, and Richard Nixon.

Although, as noted above, Friedman did write a *Price Theory* textbook, the critical responses in Gordon's 1974 volume underscore that he never succeeded in articulating fully his framework for monetary policy analysis in a way that satisfied the mainstream macroeconomists of his own generation. And while Friedman's post-1950 scholarly writing is often characterized as "non-technical" because it eschews mathematical formalization and mostly avoids even the use of multivariable regression analysis, his "narrative" style works, ironically, to make his books and articles *less* accessible to economists today, who are much more comfortable using dynamic, stochastic, general equilibrium models or vector autoregressions to tell their own stories.[4]

Thus, part 2 of Nelson's work, nested in between his two chronological sections, makes a separate contribution of its own by translating Friedman's monetarist framework into the language of today's macroeconomics. Nelson's careful and comprehensive reading of Friedman's many writings and public statements, together with his working knowledge of contemporary macroeconomics, make him uniquely qualified to undertake such a task. And here, again, he succeeds admirably.

In this second part of his book, Nelson argues persuasively that much of "Friedman's Framework" is, in fact, embedded into the New Keynesian model of the president day. In particular, the New Keynesian IS curve describes the forward-looking behavior of an optimizing consumer in much the same way as Friedman's permanent income hypothesis does. And the New Keynesian Phillips curve embodies the natural rate hypothesis that Friedman, together with Edmund Phelps, developed in the 1960s. Kimball (1995), Goodfriend and King (1997), and Hetzel (2017) have suggested, similarly, that the New Keynesian model owes as much to Friedman as it does to Keynes. But even more than those previous authors, Nelson works to support that claim with detailed references back to Friedman's original writings and research.

Nelson also goes further, by identifying important modifications and extensions required to bring the New Keynesian model into more complete alignment with Friedman's own, much richer, descriptions of the monetary transmission mechanism. For example, Nelson adds the real interest rate on a long-term nominal bond to the New Keynesian IS curve, as a stand-in for the range of additional asset returns that, in Friedman's view, play a key role in determining aggregate demand. This particular addition distinguishes Nelson's Friedman-esque model not

[4] Nelson (Vol.2, p.316) summarizes nicely the break between Friedman's own style of research and the more mathematical approach taken by Lucas, Sargent, and all those who followed by quoting a letter from Friedman to Michael Darby in 1975. There, Friedman wrote, "I am not accustomed to thinking in terms of neoclassical growth models." Today, it seems fair to say, most macroeconomists *cannot* think without reference to some version of the neoclassical growth model.

only from the standard New Keynesian specification that describes the effects of monetary policy through exclusive reference to the short-term nominal interest rate, but also from alternatives developed by Friedman's major contemporaries: James Tobin, who emphasized the role of "q," the ratio of the market to the replacement cost of physical capital, and Karl Brunner and Allan Meltzer, who stressed the importance of the price of equity claims to physical capital.[5]

According to Nelson, none of Friedman's statements justify the inclusion of terms involving real or nominal money balances in the aggregate demand relationship. Rather, Friedman's views are best summarized through the addition of an entirely distinct dynamic equilibrium relationship, linking changes in the money stock to changes in the term premium embedded into the long-term nominal interest rate. Of course, Friedman would also insist on including a money demand relation in his model, not just to determine the quantity of money supplied at the Federal Reserve's target for its short-term policy rate, but to account as well for the effects of changes in the money stock on interest rates across the yield curve and, through that channel, on aggregate demand. Finally, Nelson adds a term involving lagged, as well as expected future, output to his IS specification to capture the inertia in spending that Friedman often emphasized with reference to the "long and variable lags."

All of Nelson's additions and modifications to its aggregate demand relationship usefully highlight the most practical limitations that Friedman would likely see in the New Keynesian model's description of the monetary transmission mechanism. For the New Keynesian model, with its exclusive emphasis on the short-term interest rate, implies that once the Fed's interest rate target reaches its lower bound near zero, additional monetary stimulus can be provided only through "forward guidance," that is, promises to keep policy rates lower for longer in the future. Surely, Friedman would reject this view as overly narrow. Monetary policy in Nelson's model continues to affect output and inflation, even when the short-term interest rate is constrained by the zero lower bound. It does so, not through direct wealth or real balance effects, but instead through the effects that policy-induced changes in the money stock have on longer-term interest rates and other asset returns.[6]

In his discussion of aggregate supply, Nelson usefully points out that Friedman's analysis of the Phillips curve, while stressing the role of inflationary expectations, at the same time downplayed the importance of cost-push factors. Although this dimension of the early debates over the natural rate hypothesis is largely forgotten today, in the 1960s and 1970s the view that inflation is immune to changes in monetary policy and can only be influenced through wage and price controls held powerful sway in the economics profession and in policymaking circles. Much to Friedman's dismay, even President Nixon and Federal Reserve Chair Arthur Burns eventually succumbed to this view. Nelson is correct to emphasize that one of Friedman's most important contributions came through his efforts to discredit the notion that the problem of high inflation can be solved through any means other than the quantity-theoretic way: by exercising monetary restraint.

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[5] Ireland (2019) presents a recent exposition of Brunner and Meltzer's model.

[6] See Saving (2019) and Ireland (2020) for recent discussions emphasizing the monetary wealth effect.

Finally, part 2 of Nelson's work includes a valuable chapter on monetary policy rules that documents Friedman's shift away from his 1948 monetization rule and towards the now more famous constant money growth rate rule advocated in his *Program for Monetary Stability* and AEA Presidential Address.

Thus, altogether, Nelson's new books serve, to an extent that no others have before, to provide readers with a comprehensive survey of Friedman's scholarly work and a translation of his monetarist framework into terms more familiar to macroeconomists today. Nelson's books, moreover, could not have arrived at a better time. For one thing, Nelson is one of the last professional economists to have had direct, personal contact with Milton Friedman and many of his contemporaries. Sadly, many of Friedman's collaborators whom Nelson interviewed in the process of writing these books – including Gary Becker, Allan Meltzer, David Meiselman, and Anna Schwartz – have since passed away. As a consequence, a comparable project could no longer be undertaken, even by someone as learned as Nelson.

More importantly, however, readers who lived through the Great Inflation of the 1970s will not fail to notice the similarities between the social and economic challenges faced by the United States then and those prevailing today. Friedman's own teacher, Arthur Burns (1979, pp.12-3), described these challenges in a speech recounting the "anguish" he felt as Federal Reserve Chair:

> The interplay of governmental action and private demands had an internal dynamic that led to their concurrent escalation. … Once it was established that the key function of government was to solve problems and relieve hardships – not only for society at large but also for troubled industries, regions, occupations, or social groups – a great and growing body of problems and hardships became candidates for governmental solution. New techniques for bringing pressure on Congress – and also on the state legislatures and other elected officials – were developed, refined, and exploited. …
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> Many results of this interaction of government and citizen activism proved wholesome. Their cumulative effect, however, was to impart a strong inflationary bias to the American economy. The proliferation of government programs led to progressively higher tax burdens on both individuals and corporations. Even so, the willingness of government to levy taxes fell distinctly short of its propensity to spend. … Budget deficits have thus become a chronic condition of federal finance; they have been incurred when business conditions were poor and also when business was booming. … That is the way the inflation that has been raging since the mid-1960s first got started and later kept being nourished.

It is quite striking – and disconcerting – how well Burns' account of events back then works also to describe events today. Astonishing growth in the federal debt and the size of the Federal Reserve's balance sheet continue, driven by intense public pressure for additional fiscal and monetary stimulus. Even though price changes remain muted for now, one cannot help but worry that today's political environment is beginning to foster the same strong inflationary bias that emerged during the 1960s and grew throughout the 1970s.

Presently, however, we have an important advantage that Burns lacked: we've not only learned from Milton Friedman's teachings, but also from the historical experience that subsequently validated so many of them. If, in the years ahead, our collective memory of these lessons allows us to successfully avoid another era of "stagflation," we will have Edward Nelson and his books partly to thank.

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