A Companion to Milton Friedman

Edited by
Julio H. Cole

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Calle Manuel F. Ayau (6 Calle final), zona 10
Guatemala, Guatemala 01010
ufm.edu

Credits

Editor
Julio H. Cole

Editing and style
Jennifer Keller
Marialys de Monterroso
Amable Sánchez

Coordination
Claudia Sosa

Cover design
David Rodríguez - Container Studio

Layout and graphic design
Miguel Ángel García

Review
Claudia Sosa
Dinora de Posadas

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Chapter 6

Das Milton Friedman Problem? A Reassessment of Friedman's Contributions to Economic Methodology

Peter J. Boettke

George Mason University

Rosolino A. Candela

Mercatus Center

Abstract

Friedman's best-known essay on economic methodology is "The Methodology of Positive Economics" (1953). This important contribution has overshadowed his earlier paper on economic methodology entitled "Lerner on the Economics of Control" (1947). Whereas Friedman (1953) argued that economic theory can be built upon unrealistic assumptions, ironically, what has been almost forgotten is that Friedman (1947) attacked the theory of market socialism precisely for its unrealistic assumptions. This irony presents an interesting puzzle, which we adjudicate in this essay. We argue that in each case, Friedman was making an *immanent critique* of his intellectual opponents that was rhetorically consistent, yet methodologically inconsistent. This methodological inconsistency is irreconcilable, since Friedman (1953) contradicts the analysis of Friedman (1947).

Introduction

The purpose of this chapter is to reassess the contributions to economic methodology made by Nobel laureate Milton Friedman. In addition to Friedman's important contributions to price theory, monetary theory, and economic policy, he is also well known for his 1953 essay "The Methodology of Positive Economics." One of the central arguments

that Friedman makes in this essay is that the predictive power of economic theory is not dependent on the realism of its assumptions (1953, 14). This important contribution has overshadowed, to the point of neglect, one of Friedman's earlier contributions to economic methodology, entitled "Lerner on the Economics of Control" (1947), which critiques market socialism in theory and in practice, as put forth by Abba Lerner (1944). What has been almost forgotten is that Friedman had attacked Lerner's argument precisely for unrealistic assumptions in his theory of market socialism, rendering Lerner's theory, while logically valid, practically irrelevant.

This presents us with an interesting puzzle: are the methodological positions held by Friedman in these two essays consistent with one another? If not, can they be reconciled? To answer these questions, we must place each of these essays in their proper intellectual context and understand the audience to which Friedman was responding. We argue that in each case, Friedman was making an *immanent critique* of his opponents that was rhetorically consistent, yet ultimately must be judged as methodologically inconsistent. In his 1953 essay, Friedman argued against anti-neoclassical economists who claimed that neoclassical marginal analysis was based on unrealistic assumptions. Therefore, Friedman was defending the *conclusions* of neoclassical theory, taking the premise of its critics about unrealistic assumptions as given. In his 1947 essay, Friedman argued against market socialists who took the conclusions of neoclassical theory of optimality in resource utilization as given. Therefore, Friedman critiqued market socialism by challenging the *premises* upon which its conclusions were based. In that essay, Friedman argued that it was critical institutions within which economic activity took place that engendered the patterns of exchange and production that, taken to its logical limit, could be described as optimal. Analysis absent any institutional examination cannot yield such a result.

In both cases, Friedman's goal was to make arguments that had relevant public policy implications (1953, 7). Against the market socialists, Friedman's analysis implied that any assessment regarding the conditions required for an optimal allocation of resources cannot assume away institutional problems regarding incentives and information. Against the anti-neoclassicals, the implication of Friedman's

analysis is that markets will approximate the conditions of competitive equilibrium, negating the necessity of government intervention in the face of market failure. Unfortunately, these two public policy conclusions cannot be reconciled, leading to a "Milton Friedman Problem." Whereas Friedman (1947) critiqued the model of market socialism proposed by Abba Lerner, the argument made by Friedman (1953) would seem to imply that Lerner's model was not necessarily incorrect. Friedman would have to show that the Lerner model would not be able to accurately predict behavior within the public administration of economic policy, and not be content with arguing that Lerner did not realistically address the administrative costs of economic policy within his scheme.

Following this introduction, the next section of this chapter will provide a brief overview of Friedman's intellectual autobiography as it relates to his role in the evolution of the Chicago school in the post–World War II era and the intellectual context in which he was arguing. We discuss how Friedman was a transitional figure in the evolution of the Chicago school at a time when neoclassical economics was also undergoing a transformation. Having outlined the intellectual context in which Friedman was arguing, we then summarize and articulate Friedman's argument in his 1947 essay and his 1953 essay. We end with a conclusion.

Milton Friedman, the Chicago School, and the Transformation of Neoclassical Economics

Beginning in 1946, the Department of Economics at the University of Chicago underwent a significant turnover in its faculty that would impact the intellectual trajectory of the Chicago school thereafter. The main figures of the old Chicago school, prior to World War II, had been Frank Knight, Jacob Viner, and Henry Simons (who was a protégé of Knight's and a faculty member of the Law School). After Simons's death in 1946, the cause of which is still disputed (see Van Horn 2014), Aaron Director, Milton Friedman's brother-in-law, would succeed Simons at the Law School beginning in 1947 (Stigler 1988, 158). Jacob Viner, the famed teacher of graduate price theory, known

as Econ 301 at Chicago, moved to Princeton in March 1946, which prompted a hiring process in the economics department.

It is difficult now to imagine that Milton Friedman, who would go on to win the Nobel Prize in Economic Sciences in 1976, would thirty years prior have been regarded as a secondary candidate to replace Jacob Viner at the University of Chicago! During the hiring process, the Knightian faction of the department had chosen George Stigler as their primary candidate, while faculty members affiliated with the Cowles Commission (now the Cowles Foundation at Yale University) had wanted to hire Paul Samuelson. As Mitch states, "it was arguably this mix of technical skills and serious policy interests that made Friedman viable as a compromise candidate in February 1946, garnering support from Marschak and Koopmans of the Cowles Commission as well as Frank Knight and his protégés" (2016, 1727). Stigler, who had been a classmate of Friedman's at Chicago, would eventually move from Columbia University to receive a joint appointment in the School of Business and the Department of Economics at Chicago in 1958, when he was recruited by Allen Wallis, then dean of the School of Business (and a former classmate of Friedman and Stigler at Chicago), as the Charles R. Walgreen Professor of American Institutions (Stigler 1988, 157). Moreover, after winning the John Bates Clark Medal in 1967, Gary Becker, who had been Friedman's graduate student, would also join the Department of Economics at Chicago. Together, Friedman, Stigler, and Becker would define the new Chicago school, with Friedman as its most widely known and recognized spokesperson.

The intellectual context within which Friedman emerged as the standard-bearer of the Chicago school also constituted a transformation of neoclassical economics, which Friedman himself influenced. "During the 1940s," Boland writes, "there were many active critics of neoclassical economics, particularly of Alfred Marshall's version" (2016, 542). Friedman's training at the University of Chicago and later his teaching there were notably Marshallian, utilizing partial equilibrium "not as a body of concrete truth, but an engine for the discovery of concrete truth" (Marshall 1885, 25). Due to these critiques, however, the Marshallian approach to Chicago price theory would only become more distinct in the second half of the twentieth century. This is because, as Friedman's classmate and later colleague George Stigler put it, "1930s

economics appeared to be little different at the University of Chicago than elsewhere" (1988, 148). For example, in his lecture notes for Economics 301, the graduate course on price theory, dated June 17, 1930, Jacob Viner offers this explanation:

> Neoclassical economics is a sympathetic evolution of the English Classical School. Included under neoclassical economics is the English-American version in Taussig and Marshall and also the Austrian School, whose differences are not as important as the resemblances to the Anglo-American type. Included also is the Continental Equilibrium School or the Mathematical School, such as Walras, Pareto, and their followers. They have much more in common with the neoclassicists than in dispute. (2013, 19)

This seems to indicate that prior to the mid-twentieth century there existed a shared and implied understanding of markets, both analytically and methodologically, among neoclassical economists.

Analytically speaking, "there coexisted elements of appreciation for dynamic market processes and elements of appreciation for the degree of balance—the degree of equilibrium held to be achieved by markets" (Kirzner 1988, 2) among Austrians, Marshallians, and Walrasians. "The central conception of price theory is that of an equilibrium adjustment with respect to relative prices and relative production," writes Henry Simons, "under a free enterprise economy—under a system characterized by private property, free contract, and free exchange" (1983, 6). Equilibrium analysis was not absent among early neoclassical economists. Rather, it was utilized as a method of contrast to illustrate the functional significance of institutions as guiding individuals towards equilibrium.

There also existed a shared methodological understanding among early neoclassical economists, running from Ludwig von Mises ([1949] 1966, 66) and Frank Knight ([1935] 1997, 135) back to Eugen Böhm-Bawerk ([1888] 1959, 212) and Alfred Marshall. Given that "Friedman believed no work in price theory over the previous century surpassed Marshall's *Principles*" (Hammond 2010, 14) and used it as the main textbook in his graduate price theory course at the University of Chicago, it is worth quoting how Marshall understood the methodology of economics:

> Some parts of economics are relatively abstract or *pure*, because they are concerned mainly with broad general propositions: for, in order that a proposition may be of broad application it must necessarily contain a few details: it cannot adapt itself to particular cases; and if it points to any prediction, that must be governed by a strong conditioning clause in which a very large meaning is given to the phrase "other things being equal." Other parts are relatively *applied*, because they deal with narrower questions more in detail; they take more account of local and temporary elements; and they consider economic conditions in fuller and closer relation to other conditions of life. ([1920] 2013, 31n1; italics in the original)[1]

Building on Marshall and other early neoclassicals, Frank Knight, one of Friedman's professors at the University of Chicago, states that economics is composed of three interconnecting "methods of treatment which must logically be sharply differentiated," the first two parts of which constitute the theoretical core of price theory. The first part, which Marshall refers to as pure theory, is "largely deductive in character, of the more general aspects of economic cause and effect," and forms the basis for "those tendencies of a price system which are independent of the specific wants, technology, and resources" ([1935] 1997, 135). The tendencies of the price system are not based on any laws regarding the content of rational choice, but only on laws regarding the *form* of rational choice, which states that individuals prefer more of a good rather than less. Hayek, and others in the first half of the twentieth century, referred to this as the "pure logic of choice" or the "economic calculus." The second part, applied theory,[2] combines pure logic of choice with

1. Böhm-Bawerk restates this in similar terms: "Accordingly, it seems to me expedient to divide the problem of the theory of price into two parts. The first part concerns the necessity for developing *the law of the basic phenomenon in its purest form* . . . under the supposition that all persons participating in an exchange are actuated by the one single motive of the quest for the attainment of an immediate benefit through exchange. The second part of the problem consists in incorporating into the basic law the modifications which result from the contributory activity of other motives and factual circumstances . . . this second part is also the proper situs for revelations concerning the function performed by certain highly concrete institutions" ([1888] 1959, 212; italics in the original).
2. Ludwig von Mises, whose economic methodology is often misrepresented as purely deductive, or aprioristic (see Boettke and Leeson 2006), makes reference to Frank Knight, with whom he shares a similar methodological perspective on economic

subsidiary empirical conditions of time and place, such as private property, money prices, and profit and loss accounting, in order to understand the concrete manifestation of rationality itself. Applied theory is the realm of spontaneous order analysis, from which the unintended emergence of money prices and institutions are traced back to rational decision-making. The third division of economics is history, which includes the realm of statistical analysis.

In employing this tripartite analysis, economists understood that all human behavior is rational across time and place. However, the manner in which such rationality manifests itself at a particular time and place is *institutionally contingent*. The pursuit of rational self-interest does not automatically yield socially beneficial consequences, but is dependent upon a set of institutional conditions—namely, private property and freedom of contract—that channel self-interest in a positive-sum manner.

This shared understanding would become frayed (and forgotten) during the middle and latter half of the twentieth century, and form into distinct and separate schools of thought, but the dominant paradigm that emerged among mainstream neoclassical economists was an almost exclusive focus on general competitive equilibrium. This would become most pronounced not only among Walrasian economists, particularly Kenneth Arrow, Gerald Debreu, and Frank Hahn, who used formal mathematical modelling to prove the existence, uniqueness, and stability of general equilibrium but also among economists of the new Chicago school, particularly George Stigler and Gary Becker, who argued that markets approximated the conditions of perfect competition. Friedman, however, was a transitional figure between the old and new Chicago schools, whose methodological arguments, as we

theory: "Economics does not follow the procedure of logic and mathematics. It does not present an integrated system of pure aprioristic ratiocination severed from any reference to reality. In introducing assumptions into its reasoning, it satisfies itself that the treatment of the assumptions concerned can render useful services for the comprehension of reality. It does not strictly separate in its treatises and monographs pure science from the application of its theorems to the solution of concrete historical and political problems. *It adopts for the organized presentation of its results a form in which aprioristic theory and the interpretation of historical phenomena are intertwined*" (Mises [1949] 1966, 66; italics added).

explain below, reflected the intellectual audience to which he was responding[3] (see Boettke and Candela 2017).

Milton Friedman and His Critique of Market Socialism

One of the great ironies in the history of economic thought during the twentieth century is that the tools of neoclassical economic theory, which had been used to analyze the allocative efficiency of capitalism, became utilized to demonstrate the superiority of socialism. This group of economists, known as market socialists, adopted neoclassical marginal analysis to argue that rational economic calculation under socialism was possible and more efficient than under capitalism. In a devastating critique of socialism, Ludwig von Mises ([1920] 1975) had argued that rational economic calculation under socialism would be impossible due to the fact that the abolition of private property in the means of production would preclude exchange of such means of production in a market, implying the abolition of money prices. Without money prices that emerge through exchange, central planners would be unable to calculate the opportunity cost of utilizing capital goods in alternative production techniques, therefore rendering economic calculation under socialism impossible.

What was most ironic about the response leveled against Mises by the market socialists was the claim that his argument had been based upon a rejection of neoclassical economic theory!

> It has been maintained, indeed, by Marx and by the historical school (in so far as the latter recognised any economic laws at all), that all economic laws have only historico-relative validity. But it is most surprising to find this institutionalist view supported by a prominent member of the Austrian school, which did so much to emphasize the universal

3. The same could also be argued for George Stigler (see Boettke and Candela, forthcoming). Stigler predominantly utilized partial equilibrium as the anchor that foregrounded his economic analysis, and Stigler's public policy conclusions were a by-product of this understanding of economic science. Like Knight, however, this did not imply he always neglected to tell a background story of dynamic adjustment of relative prices to changing circumstances, in which error-prone actors are being guided towards equilibrium. Therefore, while Stigler generally argued that markets approximated perfect competition, and are therefore efficient, he did not completely neglect a background story to illustrate how market processes eliminated the existence of market failures, including imperfect information, monopoly power, and externalities.

> validity of the fundamental principles of economic theory. Thus, Professor Mises' denial of the possibility of economic calculation in a socialist system must be rejected. (Lange 1936, 55)

Lange goes on to state that Mises's denial of the possibility of economic calculation in a socialist economy implies a denial of rational choice, which is "plainly institutionalist" (1936, 55n2).

Our point here is not to emphasize the details of Lange's response to Mises. Rather, it is to illustrate two broader points about the evolution of economic methodology that had taken place by the mid-twentieth century. First, any discussion of institutions, which had been a part of the shared understanding of economic science among early neoclassicals, became regarded as a rejection of the universal validity of rational choice across time and place. Secondly, any discussions of the incentives in a market economy also were defined outside the scope of neoclassical theory because economists' discussions of incentives were analogous to an analysis of motivations, which was regarded as the realm of psychology and sociology, not that of economics (Boettke and Piano, forthcoming). For example, Abba Lerner criticized fellow market socialist Evan F. M. Durbin for having addressed the possibility of incentive incompatibilities under capitalism.

> In this comparison we must take the theoretical system in both cases i.e., leaving apart such *sociological questions as incentive*, etc. In general Mr. Durbin refuses to discuss these matters in the article considered and he is well justified in refusing to accept in the context of the problem of economic accounting such criticisms of socialism as depend upon these considerations. He is, however, guilty of a similar sin in the opposite direction when he declares it to be a disadvantage of capitalistic production that the managers of joint-stock companies will reinvest their quasi-rents in their own enterprise, even if the yield is greater elsewhere, because by so doing they safeguard their own jobs . . . *This is not an accounting but a personal or sociological problem which may well be even more serious in some forms of socialist economy.* (Lerner 1937, 267n1; italics added)

To summarize, by the 1940s, both the utilization and rejection of mainstream neoclassical economic theory by its defenders and critics, respectively, became based upon an analysis of the formal conditions of competitive equilibrium. As such, economic theory was no longer

understood in the broad theoretical sense of pure theory, applied theory, and comparative institutional analysis. Rather, the theory become synonymous with the formal analysis of equilibrium itself. Therefore, methodological debates regarding the applicability of neoclassical theory to the analysis of markets became centered on rational choice theory and its underlying assumptions.

Abba Lerner and Oskar Lange, in response to Mises ([1920] 1975), devised an economic theory of market socialism. Briefly stated, the model of market socialism postulates that a central planning board would instruct the managers of state-owned enterprises to follow a set of profit-maximizing rules, and by doing so, such managers would grope towards the conditions of perfectly competitive equilibrium through trial and error, or what Leon Walras referred to as a series of *tâtonnements* (Lange 1936, 59), a process which they regarded as analogous to that which takes place under capitalism. During this *tâtonnement* process, the central planning board would mimic the function of a "Walrasian auctioneer" in its role of sorting goods and services to their most valued uses to eliminate shortages and surpluses in the market. The implementation of market socialism, according to Lange and Lerner, would outperform capitalism by eliminating inefficiencies associated with monopoly power and business cycles.

In his review of Lerner's *The Economics of Control* (1944), Friedman did not critique Lerner for accepting the validity of the formal similarity between socialism and capitalism under conditions of perfectly competitive equilibrium. Friedman took the formal validity of Lerner's argument as a matter of logic, so this could not be refuted. Rather, Friedman took Lerner's conclusions as given, but critiqued the *soundness* of the premises upon which his conclusions were based. By focusing on the formal conditions for an optimum, Lerner neglected the institutional context within which economic decision-making was made. Friedman therefore took Lerner's model as not only impractical but also unrealistic, since Lerner expressed his analysis as if economic decision-making occurred in an institutional vacuum. Thus, Lerner could not appraise the administrative problems of the policies proposed or their social and political ramifications. As Friedman states, "Lerner's acceptance of the price mechanism does not, however, mean acceptance of the

particular institutional arrangements with which the price system is historically associated, namely, a free-enterprise exchange economy characterized by private ownership of the means of production" (1947, 407).

For Friedman, "the formal analysis is almost entirely irrelevant to the institutional problem" (1947, 405), which for the academic economist is understanding the appropriate institutional conditions to generate the optimal allocation of resources, such that marginal social benefit equals marginal social cost. Friedman's main criticism is that "Lerner writes as if it were possible to base conclusions about appropriate institutional arrangements almost exclusively on analysis of the formal conditions for an optimum" (1947, 415).

Lerner's preoccupation with the optimality conditions of competitive equilibrium leads him to reject that prices will be sufficient for the optimal allocation in those cases when private and social costs diverge, such as when monopoly power is present. Therefore, Lerner concludes that the market is inefficient and requires government intervention as the *deus ex machina* to generate a convergence of marginal and social costs. Central planners would eliminate such market failures by following a rule of pricing according to marginal cost, such that "Lerner would instruct the managers to pretend that they are operating under the conditions of perfect competition and to play at private enterprise" (1947, 408).

However, Lerner misses the point that prices are a necessary, though not a sufficient, condition for generating a tendency towards equilibrium. Such optimality conditions do not emerge in an institutional vacuum. Without the institutional prerequisite of private property, central planners will be precluded from access to the knowledge that market prices communicate and the coordinative effect such prices have on individuals in generating the conditions of equilibrium as an unintended outcome of their buying and selling through the market process. Implicit to Lerner's argument, and to the general idea that prices are sufficient solutions to allocative problems, is the implication that the valuation of the factors of production necessarily follows from the valuation of consumer goods.

Just as Friedman argued in his 1953 essay, his critique against Lerner was not to assert that all assumptions must be completely

realistic. Economic theory would be impossible under such an intellectual restriction. But the policy relevance of assumptions independent of the predictive power of a theory also matters. In other words, if positive economics is to advance and make fruitful contributions to public policy, they must have a bearing on the appropriate institutional arrangements necessary to generate the incentives and information necessary for an optimal allocation of resources.

Milton Friedman and His Defense of Neoclassical Theory

During the 1940s, the increasing focus on equilibrium analysis among mainstream neoclassical economists was also utilized by another group of economists to critique the extent to which markets actually approximate the conditions outlined by perfect competition—namely, that profit-maximizing firms will price according to marginal cost and produce at a level of output that minimizes average costs. This group of economists, known as institutionalists, made "a specific attack on a particular class of abstract thinking. That class of abstract thinking which took profit maximization as central element, which treated human beings as rationally directed toward the maximization of profit. That was the form of abstract reasoning to which they were objecting particularly" (Friedman, quoted in Kitch 1983, 173).

One way to understand Friedman's argument in "The Methodology of Positive Economics" is to frame it in the context of what is known today as "the marginal cost controversy." Beginning with survey data of company managers gathered and published by two Oxford economists, Robert Hall and Charles Hitch, many economists began to challenge the assumption of profit maximization upon which neoclassical marginal analysis is based. These studies led these economists to conclude "that the managers were ignorant of such things as elasticity of demand and marginal products, and thus not able to do what would be required to maximize profit when, say, hiring labor" (Boland 2016, 542).

During the 1940s, the institutionalist economist Richard Lester challenged the empirical reality of economic actors engaging in marginal decision-making (1946, 1947; see also Stigler 1947). According to Lester, survey data of labor markets demonstrated that

actors had no clue about weighing marginal benefits and marginal costs. For Lester, like other institutionalists, economic generalizations could be inferred without theory from generalizations that could be verified empirically. Although Lester was rejecting marginalist conditions, the premise of Lester's argument rested implicitly on the notion that cost curves were objective in the sense that they were measurable by an outside observer.

In this respect, Austrian economist Fritz Machlup responded that cost curves were subjective, and therefore Lester's conclusions were invalid (1946, 1947). Machlup's position, consistent with Hayek (1937), is that the marginal conditions of producing output at a level that minimizes average costs and pricing final products equal to marginal costs are not given assumptions, but *by-products* of the competitive market process itself. The cost-plus-markup procedure utilized by producers is in general a rule of thumb for price searchers, offering a place from which to begin looking, a first approximation in the continuous groping towards a dynamic equilibrium (Heyne, Boettke, and Prychitko 2006, 234).

Rather than provide a *transcendent critique*, as Machlup did, by directly challenging the critique made by institutionalists against profit maximization, Friedman (1953) instead took their assumptions as given to demonstrate that markets will still approximate the conditions of perfect competition. Understood this way, Friedman was not rejecting the importance of realism of assumptions in economic theory, but providing an *immanent critique* to defend the conclusions of neoclassical theory against its anti-neoclassical opponents. In the rest of this section, we will reframe Friedman's argument within this context.

"The Methodology of Positive Economics" (Friedman 1953) is concerned primarily with certain methodological problems that arise in positive economics and directed at those critics of "orthodox" economic theory who claim its assumptions to be "unrealistic." For Friedman, "the ultimate goal of a positive science is the development of a theory or a hypothesis that yields valid and meaningful predictions about phenomena not yet observed." The central argument that Friedman makes in this paper is to refute two claims about methodology in economics: (1) A hypothesis or theory in economics is acceptable only if its assumptions are realistic, and (2) the realism of the assumptions

of an economic hypothesis or theory is distinct from the truth of its predictions (1953, 14).

According to Friedman, the relevant choice among economists is not between acceptance or rejection of economic theory. Rather, because facts are theory laden, the relevant choice is between an implicit, ill-defended theory and an explicit, well-defended theory. "A theory," Friedman writes, "is the way we perceive 'facts,' and we cannot perceive 'facts' without a theory" (1953, 34). Moreover, "the notion of a completely realistic theory is in part a straw man" (1953, 32). Though it may be valid to critique the assumption that individuals are perfectly rational, it does not follow that a rejection of a perfect rationality must also imply that markets will not approximate perfect competition.

To illustrate his methodological point, Friedman describes what he refers to as the "maximization-of-returns hypothesis" (1953, 22). Friedman argues, as the institutionalists would, that "of course, businessmen do not actually or literally solve the system of simultaneous equations" that would be required to price at marginal cost and produce at a level that minimizes average costs (1953, 22). However, that is beside the point. The predictive power of the model of perfect competition does not depend upon businessmen deliberately approximating the conditions of perfect competition. Rather, based upon the survival conditions of time and place, we can assume that those firms that are in existence at any given time and place will be those that have been most successful in approximating the conditions of a perfectly competitive outcome. To argue, as Friedman does, that firms act *as if* they had perfect knowledge is not an assumption built into neoclassical analysis *ex ante* but a by-product that emerges out of a competitive process between firms striving to maximize profits.

> Confidence in the maximization-of-returns hypothesis is justified by evidence of a very different character . . . unless the behavior of businessmen in some way or other approximated behavior consistent with the maximization of returns, it seems unlikely that they would be in business for long. *Let the apparent immediate determinant of business behavior be anything at all—habitual reaction, random chance, or whatnot.* Whenever this determinant happens to lead to behavior consistent with rational and informed maximization of returns, the

> business will prosper and acquire the resources with which to expand; whenever it does not, the business will tend to lose resources and be kept in existence only by the addition of resources from outside. *The process of "natural selection" thus helps to validate the hypothesis—or, rather, given natural selection, acceptance of the hypothesis can be based largely on the judgement that it summarizes appropriately the conditions of survival.* (Friedman 1953, 22; italics added)

To summarize, Friedman argues that the conditions of the model of perfect competition will be met regardless of the behavioral assumptions of the actors in the model. Utilizing perfect competition as a benchmark of analysis, Friedman contends that what is regarded as "rational" can be extracted through backward induction from the actions taken by those firms that have remained in business, since the businesses that have survived will be those that have most successfully approximated the perfectly competitive outcome. In this way, Friedman was able to defend the conclusions of neoclassical theory without dismissing the specific critiques made by the institutionalists.

The goal of positive economic analysis, as Friedman argues, "is precisely the contribution that can thereby be made to agreement about policy" (1953, 7). "It is certainly true," Friedman states, "that the main figures in institutional economics were people who believed in intervention in one way or another" (quoted in Kitch 1983, 175), and their objections to abstract neoclassical theory, particularly that of Marshall, were made to reject what they regarded as the laissez-faire policy implications of early neoclassical economics. If indeed markets will approximate perfect competition despite the fact that individuals are unaware of neoclassical, or marginal, analysis that is consistent with profit maximization, then the normative basis for government intervention to correct market failures, specifically monopoly power, is largely negated. Unfortunately, the claim that markets will always approximate a perfectly competitive outcome, where all the gains from trade have been exhausted, price equals marginal cost, and firms produce at a level that minimizes average cost, regardless of the realism of assumptions, contradicts the argument made by Friedman in 1947.

We can illustrate the contradiction between Friedman's methodological proposition made in 1953 and his argument in 1947 with the following counterexample. Let us suppose the economic hypothesis that

profit-maximizing firms and utility-maximizing individuals achieve the conditions of perfectly competitive equilibrium as if they have all the given data or all the relevant knowledge in an economy, just as Friedman (1953) assumed. To be fair, Friedman asserts that an ideal construct such as equilibrium is not intended to be descriptive, but only to isolate the features crucial to a particular problem. However, let us now substitute a benevolent central planner for a market of profit-maximizing firms, under the assumption that it plans as if it possesses all the relevant knowledge in society, just as Lerner (1944) had assumed. Under this "as if" assumption of perfect knowledge, we could assert that the formal conditions of equilibrium will hold under socialism just as it will under capitalism, a conclusion which contradicts Friedman's argument in 1947.

This rhetorical consistency with which Friedman approached his intellectual opponents results in what we refer to as the "Milton Friedman Problem," a methodological contradiction that cannot be reconciled. This difference in methodology between Friedman (1947) and Friedman (1953) reveals that he is a transitional figure between the old Chicago school, which emphasized the institutional prerequisites of planned coordination in a market economy, and the new Chicago school, which emphasized the ubiquitous efficiency of markets. However, depending on the intellectual audience, Friedman throughout his career would shift and alternate between these methodological approaches in defending the market economy (Boettke and Candela 2016).

Conclusion

In this chapter, we have argued that there exists a "Milton Friedman Problem" that is methodologically irreconcilable. Against both the institutionalists and the market socialists, Friedman's methodological essays were intended to defend Marshallian price theory by immanently critiquing each of their arguments. Against the institutionalists, Friedman was defending the predictive power of neoclassical economics, arguing that its conclusions hold independent of the realism of its assumptions. Against the market socialists, Friedman challenged the unrealism of assumptions regarding the optimal allocation of resources under socialism. Assessing these methodological contributions together, there is

indeed a rhetorical consistency between Friedman (1947) and Friedman (1953). In each case, Friedman was engaging in an immanent critique against his intellectual opponents.

But there is a methodological contradiction between Friedman's critique of Abba Lerner in 1947 and his later assertion in 1953 that competitive equilibrium will be approximated, even under unrealistic assumptions. If indeed we take Friedman's argument in 1953 to be true, this implies that Lerner's model of market socialism will achieve an optimal allocation of resources, negating Friedman's earlier critique of that model. The formal similarity of socialism and capitalism under competitive equilibrium assumes away any institutional problem regarding the incentives and information necessary to achieve such an outcome, since the information required for such optimal conditions is already assumed to exist under equilibrium. We are, of course, perfectly aware that Friedman would not endorse the model of market socialism, neither in his 1953 essay, nor in his later works. However, if we push his 1953 argument to its logical conclusion, this ultimately implies that Friedman himself would have to reject his earlier critique of Lerner regarding the unrealistic assumptions of market socialism. This methodological contradiction in Friedman, we ultimately argue, cannot be reconciled.

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