CHICAGO PRICE THEORY AND CHICAGO LAW AND ECONOMICS: ISSUES ON THE ROAD TO A HISTORY OF CHICAGO PRICE THEORY*

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CHICAGO PRICE THEORY AND CHICAGO LAW AND ECONOMICS

It is common practice to equate "law and economics" with the Chicago school and Chicago law and economics with Richard Posner and the economic analysis of law. Just as common is the tendency to equate Chicago microeconomics, or price theory, with Gary Becker, George Stigler, and the hard-nosed rational choice approach that has extended the economic paradigm across the social spectrum. In fact, however, these are distinctly modern variants of what are lengthy Chicago traditions in law and economics and price theory. The Chicago price theory tradition is now more than three-quarters of a century old, and the law and economics tradition only a couple of decades younger than that. But Chicago price theory prior to, say, the 1960s was a rather different enterprise than that of the subsequent period. Likewise, law and economics at Chicago has undergone a major transformation during the same period, as pointed out by, e.g., Alain Marciano (2008) and Steven Medema (1998). To date, however, there has not been a historical explanation given for this transformation in law and economics. The position here is that the transformations of price theory and law and economics are linked—specifically, that the transformation of Chicago law and economics evolved out of the transformation in price theory.

The first generation of Chicago law and economics—as reflected in the teaching and scholarship of Aaron Director, Director's students, and Ronald Coase—has its foundations in the first generation of the Chicago price theory tradition—that is, in the price theory courses of Frank Knight, Jacob Viner, and, later, Milton Friedman. The second generation of Chicago law and economics—the economic analysis of law—is grounded in the rational choice theory, a form of price theory quite different from the "old" Chicago version, in spite of elements of common lineage,[1] as well as a very different conception of "economics," one that involved a (then-)distinctive take on Lionel Robbins's definition of the subject as "the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses" (1932/1935, p. 16).

This paper will attempt to bring out the distinctions between the old and the new versions of Chicago price theory, and how this transition on the price theory side made possible and indeed gave rise to a significant structural shift in the form of law and economics as practiced at Chicago—from "law and economics to the "economic analysis of law."

Price Theory at Chicago

The Founding of a Tradition

The origins of the Chicago price theory tradition can be found in the lectures of Frank Knight and Jacob Viner in the 1920s and 1930s. Together, Knight and Viner taught price theory to a generation of students, including several—Milton Friedman, George Stigler, and Aaron Director—who would go on to shape Chicago economics in the middle third of the twentieth century.

[1] My reference to the "first generation" here corresponds very closely to what McCloskey (1998) has called "The Good Old Chicago School." I have chosen to use terms such as "first generation," "second generation," "old," and "new" to avoid the appearance of taking sides.

Both Knight and Viner emphasized a deductive approach to economics, as against the inductive approach favored by the institutional economists who were dominant in the profession in the 1920s. Knight was a theorist *qua* theorist and made no secret of his disinterest in empirical analysis. His most significant influences lay in his support for the competitive market system at a time when professional currents had moved forcefully in favor of more extensive regulation of economic activity, and in his conception of economics and its distinction from the "choice under scarcity" approach that was being offered by some, such as Lionel Robbins in his influential *Essay on the Nature and Significance of Economic Science* (1932), as the appropriate way to conceive of "economic science." While Robbins's definition seemed to open up vast areas of life to economic analysis, it did not describe Knight's approach to the subject.[2] Indeed, Knight was arguing already in the mid-1920s—four decades prior to the rise of economics imperialism—that people ascribed *too broad* a role to economics and that nothing was more important than the recognition of economics' "limited place among the human interests at large" (1933, p. 1).[3] He believed that economics texts erred in "including virtually all intelligent behavior" under the definition of economics and spoke dismissively of one text that defined economics as "'the science of rational activity'" (p. 1), blaming this conception of economics on the attempt by his professional colleagues to make their subject seem more scientific.

Knight argued that "economizing, even in this broad sense of rational activity, or the intelligent use of given means in achieving given ends, does not include all human interests" (p. 2). In "The Limitations of Scientific Method in Economics," Knight argued that,

> From a rational or scientific point of view, all practically real problems are problems in economics. The problem of life is to utilize resources 'economically,' to make them go as far as possible in the production of desired results. The general theory of economics is therefore simply the rationale of life.—In so far as it has any rationale! The first question in regard to scientific economics is this question of how far life is rational, how far its problems reduce to the form of using means to achieve given ends. Now this, we shall contend, is not very far; the scientific view of life is a limited and partial view; life is at bottom an exploration in the field of values, an attempt to discover values, rather than on the basis of knowledge of them to produce and enjoy them to the greatest possible extent. We strive to "know ourselves," to find out our real wants, more than to get what we want. This fact sets a first and most sweeping limitation to the conception of economics as a science (1924, p. 1).[4]

The behavioral definition of economics was, for Knight, too narrow.[5] Against this conception of the subject, Knight insisted that "Economics deals with the *social organization* of economic activity," primarily via "the price system, or free enterprise" (1933, p. 4). This includes "the organization of want satisfaction," and the object is to improve this organization and increase its efficiency (pp. 7-8). Knight thus put markets, as coordinating devices, at the center of Chicago price theory. His anti-empirical bent shows through here, for he considered individual freedom and competitive markets to be good in and of themselves and did not look to or engage in empirical inquiry to support or even test this.

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2 On Robbins's definition and its influence, see Backhouse and Medema (2008a).

3 Knight's *Economic Organization* was completed in draft form in 1924-25 although not published until 1933.

4 These ideas are also the subject of Knight (1922).

5 See also Knight (1933, p. 1-4).

Viner's impact came via his approach to the subject, one grounded in the demand-supply framework of Alfred Marshall's *Principles of Economics* (1890/1920)—his lectures were practically a walking tour of Marshall's *Principles*, the text that was to dominate the teaching of price theory at Chicago for five decades—along with an applications orientation that emphasized the use of price theory to analyze concrete economic problems.[6] Viner, for his part, never set out a formal definition of economics, though he is said to have quipped on more than one occasion that "Economics is what economists do."

Like Marshall, Knight and Viner did not see economics as offering virtually inviolable laws. Instead, they looked at theories as tendency statements, as when Knight said that "Economic laws, like other scientific laws, state a *tendency*, a result which *would* follow if certain conditions are present" (p. 71). This, said Knight, applies to the marginal conditions for efficient consumption, the satisfaction of which he felt was not something that consumers do, or even "carefully strive to do." Yet, he considered the equimarginal principle "valuable as stating a tendency" because it helped "to make economic behavior in the large more understandable" (p. 77). Even the law of demand, that cornerstone of price theory, was, in the eyes of Knight, a tendency statement: people, he said, will "generally" buy less when price increases (p. 74). Viner adopted a similar stance.[7]

The Fork in the Road

Viner left Chicago for Princeton in the mid-1940s, and Knight's influence in the department was greatly diminished by the 1950s. The second generation of Chicago price theory was dominated by Milton Friedman and George Stigler, each of whom, in his own way, attempted to refine and build upon the framework laid out by Knight and Viner. Some of this work was developed outside of Chicago proper, as Friedman did not join the Chicago faculty until 1946 (replacing Viner) and Stigler until 1958.

Friedman's approach to price theory was profoundly influenced by both Knight and Viner, though more so by the latter's emphasis on Marshall, whose *Principles* was, for Friedman, a cornerstone of price theory even in the 1960s. Friedman's definition of economics was actually very Knightian, being "the science of how a particular society solves its economic problems" (1962, p. 6), though wedded to the increasingly dominant professional view that an "economic problem exists whenever *scarce* means are used to satisfy *alternative* ends" (p. 6).[8] Reading Friedman's *Price Theory* from the perspective of the present, one is tempted to infer a premonition of economics imperialism when Friedman says that "This conception of an economic problem is a very general one and goes beyond matters ordinarily thought of as belonging to economics" (p. 6). But then he cites the allocation of leisure time as the example of this expansiveness—hardly a topic that someone even in the 1970s (to say nothing of today) would consider other than straightforwardly "economic."

The methodological approach underlying Friedman's price theory was set out very clearly in his influential essay on "The Methodology of Positive Economics" (1953). Here, Friedman argued that economic theory is a "language" or a "filing system," a conception of economic theory that for him was essentially Marshallian (coinciding with Marshall's *engine*

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[6] By "empirical" here I do not mean "econometric'; Viner was more ambivalent about the application of statistical and econometric methods than were (eventually) his students, although not as hostile on this front as was Knight.

[7] See, e.g., Viner (1930).

[8] See Backhouse and Medema (2008a) on the diffusion of the scarcity definition.

of analysis), and the relevant aspect of which is it "usefulness" rather than its correctness (1953, p. 7).[9] In his classic essay on "The Marshallian Demand Curve" (1949), Friedman criticized what he considered an excessive fixation by economists on the mathematically sophisticated Walrasian general equilibrium approach and suggested that abstraction, generality, and mathematical elegance had become "ends in themselves" for too many of his professional colleagues (p. 490). He gave general equilibrium analysis only scant attention in his graduate price theory lectures, something Becker (1991, p. 143) would later suggest was a shortcoming of the course. Like Viner, Friedman found in the Marshallian framework a means to understand and explain concrete facts via its relative simplicity and lack of restrictive assumptions. But theory was more than a language for Friedman; it was also "a body of substantive empirical propositions" that yield predictions, and this emphasis on the ability of the theory to explain and predict became a hallmark of the Chicago price-theoretic identity.[10]

Friedman's price theory, like that of Knight and Viner before him, was centered on the analysis of markets, and so grounded in the analysis of demand rather than in a particular underlying theory of consumer behavior. As his 1953 methodology essay makes clear, Friedman was keen to separate economics from psychology, and one see this reflected in his price theory. Both his classic article with Leonard Savage on "The Utility Analysis of Choices Involving Risk" (1948, pp. 287-88) and his essay on "The Marshallian Demand Curve" (1949, p. 479) explicitly incorporate the "as if" approach to consumer theory rather than making assumptions about how individuals actually make choices.[11] Likewise, in his price theory lectures and text, Friedman traced the theory of demand and supply without grounding it in any particular theory of individual behavior.[12] While Friedman did allow that decisions regarding what goods and services to purchase involve "a deliberate act of choice," he went only as far as to say that, in making these choices, "we shall suppose that the individual is making these decisions *as if* he were pursing and attempting to maximize a single end" (1962, p. 37). This characterization of the problem is present in student notes on his lectures from 1947, and it is repeated verbatim in the 1976 revision of his text (1976, p. 35).[13] Of course, this "as if" approach to theorizing is a centerpiece of Friedman's methodological perspective (Friedman 1953).

That Friedman's price theory was not of the hard-nosed rational choice variety is evident throughout his work. In fact, one finds no discussion of rationality in either edition of Friedman's *Price Theory*, nor in a recently published set of student lecture notes from his class (1947/2008). Friedman does tip his hat, in passing, to public choice in both the 1962 and 1976 editions, but he added nothing regarding the burgeoning economics imperialism

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[9] See also Friedman (1962, p. 8).

[10] Friedman gives the definition of a demand curve as an example of the language/filing system and the statement that demand curves are downward sloping as substantive empirical proposition (1962, p. 8).

[11] For example, Friedman and Savage (1948, pp. 287-88) depict the situation as follows: "In choosing among alternatives open to it, whether or not these alternatives involve risk, a consumer unit (generally a family, sometimes an individual) behaves as if (a) it had a consistent set of preferences; (b) these preferences could be completely described by a function attaching a numerical value—to be designated "utility"—to alternatives each of which is regarded as certain; (c) its objective were to make its expected utility as large as possible."

[12] Friedman's text was actually based upon student lecture notes taken in the 1950s. See the preface to Friedman (1962) and the discussion in Fand (1999).

[13] The class notes are those of Glenn Johnson from Friedman's Winter 1947 price theory lectures (Johnson 1947/2008).

literature in the 1976 edition, and we see there only a passing reference to Becker's work on the economics of the household and human capital.[14] Friedman's reading list is also instructive: large chunks of Marshall's *Principles* were still required reading in Friedman's price theory course in the 1970s, while Becker's 1971 text, *Economic Theory*, is listed, along with several other books, as a recommended (but not required) supplementary reading.[15]

George Stigler did not arrive at Chicago until 1958, but he, too was working away at price theory during the 1940s and in fact authored the first commercially published book in the Chicago price theory tradition—*The Theory of Competitive Price* (1942). Here, Stigler gave what might be called a "Robbins-plus" definition of economics, making it "the study of the principles governing the allocation of scarce means among competing ends when the objective of the allocation is to maximize the attainment of the ends" (p. 12). Within this, Stigler identified scarcity as "the most fundamental characteristic of an economic problem" (p. 13). What is novel here is that Stigler put maximizing behavior in his definition of economics. And in contrast to his good friend Milton Friedman, who made maximizing behavior an "as if" factor, Stigler said that it is "very realistic to assume that a maximum fulfillment of needs is sought" (1942, p. 13).[16]

In their important paper on the stabilization of demand theory during the twentieth century, Philip Mirowski and Wade Hands (1998) argue that the Chicago tradition takes demand as the starting point and largely ignores its underpinnings. This cannot be said to apply to Stigler, however (nor, as we shall see, Becker). Indeed, the chapter on demand theory in Stigler's *Theory of Competitive Price* takes consumer behavior as the starting point and derives demand curves from there. For Stigler, self-interested behavior was at the center of economic analysis and had been since the time of Smith, whose *Wealth of Nations* he described as "a stupendous palace erected upon the granite of self-interest" (1971/1982, p. 136).[17] The centrality of self-interested behavior here led Stigler to label Smith "the premier scholar of self-interest" (1971/1982, p. 139) and to call this aspect of Smith's work "the crown jewel" of *The Wealth of Nations* (1976b/1982, p. 147). Stigler even went so far as to link up Smith's approach with contemporary economics imperialism, characterizing Smith as giving us "a theorem of almost unlimited power on the behavior of man" that is "'Newtonian in its universality" (1976b/1982, p. 158). This "always and everywhere" gravitational allusion is not accidental, but rather reflects what Stigler saw as the pervasiveness of self-interested behavior throughout human life.[18] Such is its generality, he said, that "we today are busily extending this construct into areas of economic and social behavior to which Smith

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[14] The reference to Becker's work on the household deals with traditional activities being transferred in and out of the household context; human capital is mentioned in a sentence noting that it impacts labor contracts (Friedman 1976, pp. 4, 233).

[15] That Friedman saw a real difference between himself and Becker is suggested by his 1970s revision of *Price Theory* when he resumed teaching the course following a hiatus of roughly a dozen years. Friedman could have used Becker's *Economic Theory* (1971) if he had found Becker's approach sufficiently congenial, rather than going to the effort of revising his own text. That Friedman chose the revision route is at least suggestive of a distinction in his own mind between his own preferred approach and that of Becker.

[16] Knight's influence is evident too, though, as Stigler, like Friedman, discussed the economic organization of society early on in the text.

[17] The interesting relationship between Smith and the Chicago school is discussed in Evensky (2005) and Medema (2009a).

[18] Both Stigler and Becker see the idea of fixed tastes and preferences that influence behavior across the spectrum of human behavior evidenced in Smith. See, e.g., Stigler (1981/1982. p. 6) and Becker (1976, p. 282).

himself gave only unsystematic study is tribute to both the grandeur and the durability of his achievement" (1976b/1982, p. 158).[19]

Stigler carried the Robbins definition of economics into the first edition of *The Theory of Price* (1946),[20] but, for reasons that are unclear, he altered his definition for the second edition, published in 1952, in favor of something much closer to Knight: "Economics is the study of the operation of economic organizations, and economic organizations are the social (and rarely, individual) arrangements to deal with the production and distribution of economic goods and services" (1952, p. 1). This last reference to "economic goods and services" is particularly interesting for our purposes and is even remarked upon by Stigler, who noted that:

> It should be only a minor annoyance to the reader that we define economics in terms of economic goods and services. A more popular definition of economics—the study of the allocation of scarce means among competing ends—also requires the tacit introduction of "economic" before "ends" in order to exclude a vast area of which economists have no professional knowledge (p. 1n).

Even so, Stigler continued to maintain that scarcity is the "central element of the economic problem" (p. 1), though he seems to have believed at this stage that the scope of applications is rather narrow.

By the third edition of 1966, both the definition of economics and the footnote about "economic goods and services" had disappeared from *The Theory of Price*, and three references to Becker's work on discrimination, investment in education, and fertility offered a signal that perhaps Stigler was finding his former definitional discussions overly restrictive. The fourth (and final) edition, published in 1987, also eschewed definitions, although Stigler did allow that his text "presents the essentials of the theory of the allocation of resources and the determination of prices" (1987, p. 1) and his chapter-length Knightian discussion of the economic organization, which had been carried through every edition to that point, was replaced by a treatment of the role played by *prices* in an enterprise economy. The 1987 edition is also distinguished by the attention that it gives to economics imperialism in general and to Becker in particular. The treatment of Becker includes a full-page boxed insert (one of twenty in the book) where Stigler notes that "Becker has done more than any other economist to enlarge the working domain of the profession" (1987, p. 239), and the book contains numerous reference to Becker's work on discrimination, education, crime, the family, and politics. In contrast, Friedman's 1976 edition contains only the two passing references to Becker's work, and these to fairly traditional economic topics.

One of the defining aspects of Chicago price theory has been the marriage of theory and empirical work. Though Knight had no use for empirical analysis and Viner was ambivalent about the use of statistical and econometric methods in economics, this changed radically with Friedman and Stigler. Friedman (1953) made prediction the centerpiece of economic analysis in his classic essay on methodology. His undergraduate training was in statistics, and he spent World War II working with the Statistical Research Group, where he made a seminal contribution to statistical sampling processes when working on optimal munitions testing methods. Friedman was also profoundly influenced by Columbia

[19] This is just one of a number of examples of the use by Chicago economists of the history of ideas to lend support to their approach.

[20] *The Theory of Price* essentially reproduced *The Theory of Competitive Price*, along with several additional chapters on subjects including imperfect competition, multiple products, and capital and interest.

University senior colleague and National Bureau of Economic Research Director Arthur Burns (a pioneer in the statistical analysis of business cycles), with whom he worked following completion of his graduate studies at Chicago.

The theory plus testing approach was seen early on as contrasting with the "measurement without theory" approach of the institutionalists and later with the theory sans empirical work that characterized general equilibrium analysis. Chicago price theorists were pioneers in the econometric testing of economic theories, and this work had a profound persuasive impact, particularly when combined with the increasing professional acceptance of Friedman's methodological dictum that the appropriate test of a theory is its ability to predict well, rather than the realism of its assumptions.

It was Stigler, though, whose research best exemplified Friedman's dictum during this period. He, too, had worked with Burns and served with the Statistical Research Group during World War II. Stigler's extensive empirical studies of the market process—in particular, on the effects of legislation on market outcomes and on how industry structure impacts market outcomes—were fundamental in transforming the field of industrial organization and the economics of regulation. Stigler was able to combine the assumption of maximizing behavior with that of imperfect information to offer an explanation for how markets could generate outcomes at odds with the received view—such as the law of one price. In Stigler's hands, these were not market failures that required government intervention, as suggested by the orthodox approach; rather, they were efficient responses to economic circumstances. Other empirical research supported the competitive markets model's prediction that rates of return are equalized across sectors over time, and that prices are flexible rather than sticky. In contrast to Knight, who considered liberal society, and thus free markets, a good in and of itself, Friedman and Stigler took a more empirically oriented approach, arguing that the competitive market system was good because it generated better results than did alternative systems.

Rationalizing Price Theory

Though much of Stigler's work was market-oriented, his move to ground the analysis of the market process in the actions of rational individual agents marked a move toward a more rational choice based approach to price theory. His identification of scarcity as "the most fundamental characteristic of an economic problem" made it quite easy to consider virtually anything an "economic problem"—although Stigler himself was not inclined to give broad scope to economics early on. Indeed, in this and other ways Stigler can be said to have had feet in both the older and newer Chicago price theory camps over time. It was with Gary Becker that we see what was perhaps the most significant transition in Chicago price theory. While more known for his forays into traditionally non-economic disciplines, Becker's approach to price theory marked a shift toward a more overtly rational choice orientation and provided the theoretical toolkit that really made those forays possible. If Friedman and Stigler represent a fork in the Chicago price theory road, Becker went down the Stigler branch and, in the process, solidified it as the future of Chicago price theory.

Becker had taken Friedman's price theory sequence at Chicago during his graduate days and, after more than a decade at Columbia, returned to Chicago in 1969. In the preface to his *Economic Theory* (1971), which was based on the course that he taught for a decade at Columbia, Becker stated that "there is only one kind of economic theory" and that it applies to both market and non-market decisions (p. viii). This economic theory studies "the allocation of scarce means to satisfy competing ends," a definition that Becker unashamedly allowed was very "wide" and under which he included the "choice of a car, a marriage mate, and a religion; the allocation of resources within a family; and political decisions about how much to spend on education or on fighting a Vietnam war" (p. 1). The emphasis here was on the choice process; while Stigler had put scarcity at the center, for Becker "the basis of economics is choice" (1971, p. 3). Two decades later, in his Nobel address, he suggested an even stronger link, equating "economic … approach" with "rational choice approach" (1993, p. 402).

Because most economists spend their time studying the market sector—or at least did circa 1971—Becker allowed that his definition was too broad in terms of describing "what most economists generally do" (p. 1).[21] His belief, though, was that "the economic principles developed for [the market] sector are relevant to all problems of choice" and that this view was the "unique theme" of the course of lectures that he taught and subsequently wrote up into *Economic Theory* (p. 1). In fact, Becker considered economic analysis "essential for understanding much of the behavior traditionally studied by sociologists, anthropologists, and other social scientists" (p. 2). As he put it in 1976, this approach is

> applicable to all human behavior, be it behavior involving money prices or imputed shadow prices, repeated or infrequent decisions, large or minor decisions, emotional or mechanical ends, rich or poor persons, patients or therapists, businessmen or politicians, teachers or students (1976, p. 8).

He saw economics providing a "valuable unified framework for understanding *all* human behavior" (1976, p. 14) and thus offering the possibility of a unified approach to doing social science (1976, p. 5; 1993, p. 403). In adopting this almost axiomatic approach to economic analysis and the view that it offered a unifying framework for doing science, Becker sounded the very themes that characterized the work of Oskar Morgenstern,[22] under whom Becker studied game theory while an undergraduate at Princeton (Becker 2007).

Gone, then, is the subject-matter approach of Knight's study of "the *social organization* of economic activity." For Becker, economics is ultimately an approach to the analysis of human behavior, one that combines the assumptions of maximizing behavior, market equilibrium, and stable preferences, using them "relentlessly and unflinchingly" to analyze human behavior under conditions of scarcity (1976, p. 5). It is not the subject matter that distinguishes economics from other social sciences—its subject matter is essentially coterminous with all of them. It is the *approach* that makes economics distinct (p. 5).

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Three provisional conclusions follow from the foregoing discussion. First, the Chicago price theory tradition is not homogeneous and, in fact, has exhibited significant heterogeneity since the early days of Knight and Viner. Second, even allowing for this heterogeneity, there is a significant distinction to be drawn between the earlier and later generations of Chicago price theory—Knight, Viner, and Friedman on the one hand and the generation from Becker onward on the other (with Stigler having a foot in each camp). Early Chicago price theory was grounded in demand theory and the analysis of markets. There was an underlying idea of utility maximization, but only in an "as if" sense. With Stigler and Becker, we see a move toward the analysis of individual behavior as the foundation of price theory, with the theory placed on a rational choice footing: individuals are deemed to be

[21] As such, it would seem to violate the Viner dictum that "economics is what economists do."
[22] See, for example, Morgenstern (1936).

rational maximizers, not necessarily of utility, but of whatever their chosen ends may be. Demand theory was sufficient to explain *prices*; a more refined behavioral grounding was necessary to explain *choices*. This move to a rational choice approach to modeling agent behavior was bound up in the axiomatic turn in the profession during the 1950s and 60s. Third, Chicago price theory increasingly came to define economics as the analysis of choice rather than as the study of the economic organization—moving, that is, from a subject-matter definition of economics to an analytical one.[23] This approach offered an account of a far greater variety of behaviors than did earlier approaches to consumer behavior. This, then, fed into the transformation of law and economics, which is the subject of the next section of the paper.

From Law and Economics to Economic Analysis of Law

Like Chicago price theory, Chicago law and economics is heterogeneous, particularly when considered historically. Its origins date to the 1930s, when the law school instituted a four-year curriculum that included courses in economics, accounting, and other subjects outside of the traditional realm of legal training (Katz 1937).[24] In 1939, the law school appointed its first economist, Henry Simons, a former student of Frank Knight, who taught a course entitled "Economic Analysis of Public Policy" and in doing so brought price theory into the law school curriculum at Chicago. In 1945, Simons became the first economist granted tenure by the law school. His *Positive Program for Laissez Faire* (1934) set out a blueprint for a legal/regulatory regime that would ensure the maintenance of competitive conditions in the face of increasing concentration in corporate America. Simons' proposals ranged from nationalization to legal limits on advertising to redefining the courts' criterion regarding the maximum firm size consistent with competition. As Stigler (1988, p. 149) later noted, Simons' program seems "almost as harmonious with socialism as with private-enterprise capitalism," giving far more credence to the possibilities of government than one would expect from a "founder" of the Chicago law and economics tradition.

Knight's anti-empirical bent was evidenced in Simons' *Positive Program*, as he provided no empirical underpinnings for his analysis, offered no evidence for the ability of the government to bring off such competition policy or for the ability of such policies to enhance the efficiency with which the economy operated. Methodologically, then, his approach was, as Coase has described it, "the very antithesis of that which was to become dominant as a result of the emergence of that new subject, law and economics" (1993, p. 242). It is fair to say, with Coase, that Simons had little or nothing to do with the development of that body of ideas and approach that became known as Chicago law and economics (1993, p. 242). His legacy, rather, came through his role in bringing to the law school the individual most responsible for firmly establishing the Chicago law and economics tradition—Aaron Director.

Director arrived at the University of Chicago for his graduate training in 1927. He studied price theory under Knight and Viner and remained at Chicago as a graduate student and part-time instructor until 1934. After more than a decade spent in Washington, D.C. and

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23 But while the approach to and underpinnings of Chicago price theory have changed significantly over time, the emphasis on the study of competitive markets has remained a virtual constant, making this an element of continuity rather than change.

24 See, e.g., Reder (1982), Kitch (1983), Coase (1993), Hovenkamp (1995), Duxbury (1995, chapter 5), and Medema (1998).

London, Director returned to the University of Chicago in 1946 to take up a position in the Law School and head up the "Free Market Study," a project housed in the Law School and dedicated to undertaking "a study of a suitable legal and institutional framework of an effective competitive system" (Coase, 1993, p. 246). When Simons committed suicide in the summer of 1946, Director was asked to take on his basic Law School price theory course, "Economic Analysis of Public Policy." This provided Director an initial forum for bringing the perspective he had learned from Knight and Viner into the law school classroom.

The transition from having an economist on the Law School faculty to the establishment of a law and economics tradition at Chicago began not long after this, when Edward Levi invited Director to collaborate in the teaching of the antitrust course. Levi taught a traditional antitrust course for four days each week; Director came in on the fifth day and, using the tools of price theory, attempted to show that the traditional legal approach could not withstand the scrutiny of economic analysis. The basic pattern was very simple: Director would ask whether the practice in question was, in general, consistent with monopolistic profit-maximization. The answer was often negative, which meant that there had to be some sort of legitimate rationale for the supposedly anti-competitive practice in question. What price theory showed, Director argued, was that the "simple and obvious" answers were often wrong-headedly simplistic. This approach had a profound impact on students and colleagues alike. Director's antitrust students have often spoken of the "conversion" they experienced in this class, and even Levi himself became a partial convert.[25]

Director published little himself, but his insights made their way into the antitrust literature—and, eventually, antitrust policy—through the writings of students and colleagues on topics including predatory pricing, resale price maintenance, and tie-in sales.[26] His influence was also prominent in Stigler's view of oligopoly and antitrust policy, Richard Posner's perspective on oligopoly and cartels, and Robert Bork's influential articles on antitrust.[27] All of this coalesced in a distinctive Chicago approach to antitrust analysis, the influence of which today is inescapable in both scholarship and jurisprudence.[28]

In 1964, as Director was approaching retirement, Ronald Coase was brought to the Law School from the University of Virginia to succeed Director on the faculty and as editor of the *Journal of Law and Economics*. Prior to Coase's arrival, the law school never had more than one economist on the faculty, although there were enough economics and legal faculty with sympathies for examining antitrust cases, regulatory issues, and so on through the lens of economic analysis to form a small reading group. Yet, the presence of scholars such as Legal Realist Karl Llewellyn on the faculty managed to ensure that there was always strong resistance to expansion of the influence of price theory in the 1950s. Henry Manne has reported that the economic analysis that was in the air "infuriated" Llewellyn, particularly when students would use it in the attempt to refute positions that Llewellyn would take in the classroom (Kitch 1983, p. 184), and Llewellyn went so far as to question whether Chicago

25 This group included Robert H. Bork, Ward Bowman, Kenneth Dam, Edmund Kitch, Wesley J. Liebeler, John S. McGee, Henry Manne, and Bernard H. Siegan. See Kitch (1983) and Director and Levi (1951).

26 See, e.g., McGee (1958), Telser (1960), Director and Levi (1951), Bowman (1957), and Burnstein (1960), as well as the survey in Peltzman (2005).

27 See, e.g., Posner (1969), Bork and Bowman (1965), and Bork (1967).

28 See, for example, the discussion in Hovenkamp (1986).

was doing a proper job of training lawyers (p. 191).[29] Edward Levi, as Dean, protected and encouraged law and economics,[30] but as Director has pointed out, on the whole there was neither "any great resistance" to nor "any great enthusiasm for" law and economics—at least until it was proposed that a second economist be hired (Kitch 1983, p. 186). In fact, the status of economics in the law school at that stage was such that Coase's initial appointment was partially in the business school.

Coase's arrival promised a measure of continuity in the legal-economic approach at the law school. While Coase was not trained in the Chicago brand of price theory, his approach was thoroughly Marshallian and very consonant with the Chicago view.[31] Coase had studied under Arnold Plant at the London School of Economics. Plant had done pioneering work analyzing the economic implications of rules governing patents, copyrights, and intellectual property generally,[32] and Coase's approach to the analysis of legal-economic policy issues, informed by Plant, resonated with the Chicago approach.[33] He believed that there were important lessons to be learned by examining the relationship between law and economy—by "examining cases, examining business practices, and showing that there was some sense to them, but it wasn't the sense that people had given to them before" (quoted in Kitch 1983, p. 193). This is the perspective that was being applied at Chicago by Director and others in the area of antitrust, and it almost certainly accounts for much of Director's interesting in bringing Coase to Chicago.

This approach was expanded to a wide range of issues in legal and regulatory policy, largely through the influence of Director and Coase as editors of the *Journal of Law and Economics*. The *Journal* was founded by Director in 1958, and its aim was "the examination of public policy issues of interest to lawyers and economists" (Coase 1993, p. 251). Coase himself was a regular contributor to the *Journal* prior to his arrival at Chicago, with his articles on "The Federal Communications Commission" (1959) and "The Problem of Social Cost" (1960) evidencing this concern with legal-economic policy.[34]

The 1960s saw the emergence of a second strand of law and economics scholarship. In 1957, Gary Becker had published *The Economics of Discrimination*, a book which showed that the model of *homo economicus* could be applied to areas beyond the standard context of economic analysis. His 1968 classic, "Crime and Punishment: An Economic Approach," brought this rational maximizing agent into the legal arena. Criminals, he said, are essentially rational utility maximizers like everyone else, but the relevant constraints and opportunity sets they encounter generate maximizing outcomes that involve engaging in criminal activity.

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[29] Llewellyn was not inherently opposed to legal-economic analysis, but his preference was for something approximating the old institutionalist variety. See, e.g., Llewellyn (1925).

[30] This after several years of serving as the foil for Director's economic critique of the received approach to antitrust analysis. See, e.g., Kitch (1983).

[31] On the Marshallian aspect in Coase, see Coase (1975) and Medema (1996).

[32] See Plant (1974).

[33] Coase has said that "[t]here were typical 'Chicago' lessons that I didn't have to learn, and I got them through Plant" (Kitch 1983, p. 214). He said that Plant's most significant influence on him involved getting him to see that 'there were many problems concerning business practices to which we had no satisfactory answer' (1982a, p. 34; see also Coase 1986). Much of Coase's career was spend looking for these answers, and this perspective, along with Plant's approach of looking at real world problems, are reflected throughout Coase's scholarship. The resonance between these statements and the Chicago approach of the day should be apparent to the reader.

[34] To understand the origins of this work, one must really examine the greater corpus of Coase's analysis of institutions. See Medema (1994, 1996) for citations to and discussions of these various works.

At least as important, though, is the associated implication that criminal activity, like any other labor–occupational–economic choice, is subject to alteration by scaling price incentives—that is, by altering legal rules—in one direction or the other.[35] To give a sense for the contrast between the "old" and "new" approaches, a first-generation Chicago economics of crime and punishment might have attempted to estimate the cost of crime to society, perhaps under alternative legal regimes. Becker was modeling agent behavior in response to legal rules: the subject was the criminal and his maximizing choice rather than the cost of crime to society. This work attracted the attention of both economists and legal scholars to the new economic analysis of legal rules and how rational individuals will respond to them.

But Becker's impact on the economic analysis of law goes well beyond his early scholarship in the field. His larger efforts to push the boundaries of economic analysis and the rational choice approach beyond the confines of market activity had two implications for the economic analysis of law. First, some of this work—on drug use and addiction, divorce, adoption, sodomy and related topics—had legal ramifications and so suggested a range of potential applications of economics to legal issues far beyond even the "new" areas of property, contracts, and torts that took off from the work of Coase and Guido Calabresi (1961) of Yale. Second, the broad scope of Becker's scholarship made the extension of the rational choice approach more like normal science and thus made the environment in economics (and perhaps even in law) more receptive to the economic analysis of law than it might otherwise have been. Becker was also the motive force behind the establishment of a law and economics program at the National Bureau of Economic Research in 1971.

By the early 1970s, the idea that there could be an "economic analysis of law" had some momentum behind it. It would be hard to dispute, though, that the catalyst for the explosion of the field was the publication of Richard Posner's treatise, *Economic Analysis of Law*, in 1973. *Economic Analysis of Law* spanned virtually the entire range of law and, as Posner called it, "the legal regulation of non-market behavior" (2007, p. xix), showing the possibilities of the application of economic theory to legal analysis and outlining a framework for a field of analysis. Posner defined economics as "the science of human choice in a world in which resources are limited in relation to human wants," and went on to say that it "explores and tests the implications of the assumption that man is a rational maximizer of his ends in life, his satisfactions—what we shall call his 'self-interest'" (1973, p. 1).[36] The early 1970s also saw the founding of the *Journal of Legal Studies* under Posner's editorship. The *JLS* was conceived of as a "law journal" that would "encourage the application of scientific methods to the study of the legal system" (Posner 1972, p. 437), and it provided an outlet for the burgeoning output in the economic analysis of law while the *Journal of Law and Economics* continued (for a time) to focus on scholarship examining issues in legal-economic policy.

Interestingly, though, Posner began his law and economics career with his feet planted rather solidly in the first generation law and economics camp.[37] He was an associate professor of law at Stanford in 1968 when he sought out Aaron Director, who had an office at Stanford Law School following his retirement from Chicago, because he, like Director, was

35 E.g., the alteration of expected cost in the form of the product of probability of detection, probability of conviction, and monetized value of cost if convicted.

36 Posner has carried this definition of economics through several subsequent editions of the book.

37 On this point, see also Marciano (2006).

working in the area of antitrust.[38] It was Director who taught Posner to think like a Chicago economist, introduced him to Stigler and Ronald Coase, and in this and other ways was instrumental in Posner's move to the Chicago Law School after only one year on the Stanford faculty.[39]

Posner's transformation from someone doing law and economics in the "old" way to developer of the economic analysis of law really came via the influence of Stigler and Becker, and one can see their influence in Posner's definition of economics, quoted above. Discussions about price theory with Stigler gave Posner a set of theoretical tools that he could use to analyze legal rules. Becker's economic theory of crime and punishment suggested that price theory could be applied to a wide range of traditional legal issues, and Posner touched on most of them in his *Economic Analysis of Law*. Coase's suggestions in "The Problem of Social Cost regarding judges' applications of economic thinking also stimulated Posner to examine whether there might be an efficiency logic underlying the development of legal rules across the common law.[40] The tools for all of this analysis were those of Chicago price theory in its Stigler-Becker version. The analysis involved the application of individual decision-making calculus to agents faced with constraints imposed by common law rules, and, where relevant, the assessment of the resulting outcomes against the standard of wealth maximization.

The other major figure in the establishment of the economic analysis of law at Chicago is William Landes. Like Posner, Landes began his law and economics work in the older tradition, writing his Ph.D. thesis on employment discrimination under Becker at Columbia. His initial foray into the economic analysis of law was "An Economic Analysis of the Courts" (1974), the genesis of which was in a news article he read on plea-bargaining. This stimulated him to apply the rationality postulate to parties in the plea bargaining process. When he presented an early draft of the paper as a young assistant professor at the University of Chicago in 1967, senior Chicago colleague Zvi Grilliches told him that he should instead focus his energies on work that was of interest to economists. Grilliches' attitude is not surprising: Landes was, in fact, one of the first economists doing research in the economic analysis of law, and doing so as a member of an economics department faculty.[41]

Becker played a major role in Landes's scholarly development. As Landes himself has said, "Becker opened my eyes as a student to the power of economics to illuminate social

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[38] Virtually all of the dozen or so articles that Posner published from 1969-1971 were in the area of antitrust and related areas of regulatory policy. Posner's view on antitrust are best seen in his 1976 book, *Antitrust Law: An Economic Perspective*, a second edition of which was published in 2001.

[39] Richard A. Posner, email correspondence with the author, October 3, 2006 and April 25, 2007.

[40] Coase said that "the courts have often recognized the economic implications of their decisions and are aware (as many economists are not) of the reciprocal nature of the [externality] problem" (1960, p. 19). He also suggested that when judges used terms like "reasonable" or "common or ordinary use" there seemed to be "some recognition, perhaps largely unconscious and certainly not very explicit, of the economic aspects of the questions at issue" (Coase 1960, p. 22). Posner has acknowledged that his "interest in using economics to try to explain legal rules stems in significant part" from this aspect of Coase's analysis in "The Problem of Social Cost." See Kitch (1983, p. 226). But Coase was not alone in the use of economics to analyze tort cases; Guido Calabresi (1961) was doing so at the same time.

[41] Landes also understands the measure of discontinuity in the Chicago law and economics tradition, that there is a fairly clear distinction between much of the early Chicago law and economics and the economic analysis of law. As Landes puts it, the former analyzes "the legal regulation of markets" while the latter "applies to tools of economics to the legal system itself" (2005, p. 295).

issues and has been a source of inspiration ever since" (Landes 2005, p. 306). Beyond this, it was Becker who suggested that Landes and Posner collaborate, and Becker brought the two of them into the founding of the NBER's law and economics program in 1971.[42] Posner and Landes have co-authored roughly three dozen books and articles and Landes calls their work "a truly joint effort." He does allow that he had "greater responsibility for the economic modeling and empirical analysis, and Posner for the law," but is unequivocal in saying that each of them contributed to all aspects of the analysis (Landes 2005, p. 300). Becker also helped bring Landes back to Chicago in 1973, when he joined Coase as an economist on the law faculty.[43]

Making Connections

To this point, then, we have established that both Chicago price theory and Chicago law and economics underwent transitions during the 1960s and 70s. Is there a connection? The answer given here is "yes," that the history of law and economics at Chicago reflects two different visions of the subject, derivative of two different visions of price theory and of the definition of economics.

Chicago price theory began as a theory grounded in basic Marshallian demand-supply analysis and with fairly loose grounding in a theory of individual behavior. Its domain was that body of activity considered "economic" since at least the classical period—production, consumption, and the distribution of "economic goods and services"—and that was reflected in Knight's conception of the economic organization. Early Chicago law and economics fit squarely into this framework. Director had learned his price theory from Knight and Viner and taught it in the law school for roughly two decades. Many of the Chicagoans doing law and economics in the late 1950s and the 1960s had learned their price theory from Director. The work of Director and his students thus reflected the same early Chicago price theory that one finds in Knight's *Economic Organization* and Friedman's *Price Theory*. It also flowed out of a subject-matter definition of economics: it was concerned with analyzing the interaction between the law and the economy and was seen as an important or even necessary component of economic analysis. This was the law and economics of Director and Coase, and the type of work that filled the pages of the *Journal of Law and Economics* in the 1950s, 1960s, and into the 1970s.

The "new" Chicago price theory was grounded in a rational choice approach to individual behavior and was the foundation of a larger movement in which economic analysis came to be viewed not simply as the study of the economic system *per se*, but as an approach, method, or toolkit applicable to all areas of life in which choices are made. The logic of this extension is simple: economics is the study of choice; if preferences are assumed to be stable—a hallmark of the "new" approach to price theory[44]—should not economics be applicable to individual decisions across the choice spectrum? The economic analysis of law was thus part of—and one of the earliest manifestations of—a larger movement within economics that saw in rational choice analysis the key to understanding the behavior of agents in all manner of "non-market" contexts. Its focus was on the application of price theory to agent behavior within the legal arena, and the analysis had little or nothing to do

[42] The original group consisted of Becker, Landes, Posner, and Isaac Ehrlich.
[43] Landes had left Chicago for the NBER in 1968.
[44] The definitive statement here is Stigler and Becker (1977).

with understanding the legal bases of the economic system—that is, with Knight's "economic organization." It consciously reached beyond the boundaries of economics into other fields with a view toward influencing scholarship in *those* fields, rather than to bring back to economics insights that would contribute to the understanding of the economic system. Simply put, what we see in the move from the first generation of law and economics to the second—that is, to economic analysis of law—is a shift from the analysis of how rights influence the economic organization and its performance to the analysis how rights impact individual behavior with respect to law under conditions of rational choice. One can see this evolution played out the pages of the *Journal of Law and Economics*.

The evolution of rational choice analysis across the social sciences is a complex phenomenon,[45] but the license for economists to cross over into subjects traditionally non-economic in nature came via Robbins's *Essay*. Rejecting the extant notion that the boundaries between "economics" and "not economics" are set by behavior that is or is not directed toward the enhancement of material welfare, Robbins argued that economics focuses on the form of behavior "imposed by the influence of scarcity" and went on to note the implications of this definition:

> It follows from this, therefore, that in so far as it offers this aspect, any kind of human behaviour falls within the scope of Economic Generalizations. We do not say that the production of potatoes is economic activity and the production of philosophy is not. We say rather that, in so far as either kind of activity involves the relinquishment of other desired alternatives, it has its economic aspect. There are *no limitations* on the subject-matter of Economic Science save this (Robbins 1932, p. 16, emphasis added).

When writing "no limitations," Robbins almost certainly did not anticipate how the boundaries of economics would be stretched in the years to come. Gary Becker has even gone so far as to suggest that Robbins did not really believe his own definition, given that he did not discuss the extension of economics to other fields in 1932 or at any point thereafter.[46]

It took more than three decades following the publication of Robbins's *Essay* for scholars to begin seriously extending the economic paradigm (Backhouse and Medema 2008a). The practice of economics continued to reflect the "old" view that economics is the study of the economic system—the same view that characterized the first generation of Chicago law and economics—even as it assimilated the idea that it is choice under scarcity within that context that defines the scope of economic analysis. Yet, it also seems clear that Robbins defined economics in a manner that naturally allowed for its extension beyond the analysis of standard market phenomena. There is certainly some tension evident in the Chicago price theory tradition between Knight's "economic organization" definition and the scarcity approach of Robbins. That having been said, the Chicago school does seem to have accepted the Robbins definition and its potentially broader implications more quickly than did the rest of the profession, with Stigler being among the first U.S economists to use it in a textbook.[47] The gradual institutionalization of the Robbins definition[48] meant that it was only a matter of time before economists began to broaden the scope of their analysis to areas such as law. By this definition, the analysis of legal issues falls squarely within the scope of

[45] See, e.g., Amadae (2004).
[46] Conversation with the author, January 2007.
[47] The Cowles Commission economists, then housed at Chicago, were also quick to accept the Robbins definition. For more on this, see Backhouse and Medema (2008b).
[48] See Backhouse and Medema (2008a).

economics. Law is unambiguously about rights, and rights, by their very nature, exist because of the problem of scarcity. And, under the Robbins definition, phenomena with a scarcity component are, *prima facie*, amenable to analysis using price theory.

One of the timeless themes of Chicago law and economics is that the use of economic analysis brings a measure of logic and rigor to the evaluation of legal rules.[49] In his wide-ranging survey of "Economic Imperialism," Edward Lazear (2000, pp. 100-102) argued that economics has brought increasing scientific rigor to a host of academic areas and attendant analyses of social phenomena.[50] This rigor, in turn, "allows complicated concepts to be written in relatively simple, abstract terms" that "strip away complexity." While those working in these other fields, including law, have lamented what they see as excessive abstraction in the economic approach, Lazear argues that complexity, while perhaps adding descriptive richness "also prevents the analyst from seeing what is essential" (pp. 99-100) and that abstraction allows economics to succeed "where other social sciences fail" (p. 102) because it allows for "analysis" in a way that the other social sciences do not (p. 103).

In economics, this abstraction comes via a trinity of attributes that have come to be so closely associated with Chicago price theory: (i) the assumption that individuals are rational maximizers, (ii) the notion of equilibrium, and (iii) the assessment of equilibria based upon their efficiency properties (pp. 100-102).[51] This is well illustrated by the economic analysis of law, one of the timeless arguments for which has been that the use of economic analysis brings a measure of logic and rigor to the evaluation of legal rules.[52] First, in contrast to the standard legal view of individuals as reasonable agents behaving according to the norms and customs of society as reflected in legal rules, the economic approach posits agents as rational maximizers of their satisfactions. Second, legal rules are viewed as prices which are taken as given by individuals and used by them in the process of calculating their utility- or profit-maximizing response to these legal rules. Changes in legal rules thus function as changes in the constraints subject to which individuals maximize, with corresponding implications for individual behavior. Third, the assessment of legal rules proceeds on the basis of the efficiency of the outcomes generated by these rules, in contrast with the "justice" or "fairness" criterion underlying traditional legal reasoning.

The discontinuity between the first and second generations of law and economics and the price theories that underpin them is also evident in the attitudes of the players themselves. Coase has argued that Robbins's definition "makes economics a study of human choice," which he says "is clearly too wide if regarded as a description of what economists do" (1978, p. 207). Coase finds more congenial the definitions given by Marshall in his *Principles* (1890, p. 1)—"a study of mankind in the ordinary business of life"—and, interestingly, by Stigler in his 1952 edition—the Knightian definition, rather than the Robbins-esque one used in his 1942 and 1946 editions. Coase both objected to the rational actor model and, evincing an attitude bordering on outright hostility, predicted the failure of economics imperialism—the latter because he felt that economists lacked expertise in these "outside" areas. To date, of

49 See the discussion of Director's classroom above and in Kitch (1983) as well as Posner's (1987) discussion of the reasons why economic analysis was able to make such significant inroads within the legal academy during the 1970s and 1980s.

50 Lazear defines the "scientific method" as "stating a formal refutable theory, testing the theory, and revising the theory based on the evidence" (2000, p. 102).

51 See Reder (1982).

52 See, e.g., Kitch (1983), Posner (1987), and the discussion in Medema (2009b, chapter 7).

course, his prediction has proven to be incorrect.[53] Director was never interested in the extension of economic analysis to other disciplines, nor were Viner or Knight. Director was old school: his work was not concerned with expanding the boundaries of economics, but with analyzing how legal rules impact economic performance. Coase is quite blunt about the economic analysis of law. He said that, in writing up "The Problem of Social Cost," he was not interested in offering a new perspective on jurisprudence but, rather, was attempting "to improve our analysis of the working of the economic system. Law came into the article because, in a regime of positive transaction costs, the character of the law becomes one of the main factors determining the performance of the economy" (Coase 1993, p. 251). Indeed, Coase consciously distances himself from Posner, whose "main interest is in the legal system" (Coase 1993, p. 251), noting that "I have no interest in lawyers or legal education" (Coase, in Kitch 1983, p. 192), and acknowledging that "In the development of the economic analysis of the law [i.e., the "new" law and economics], ... Posner has clearly played the major role" (Coase 1993, p. 251).[54]

Conclusion

There has been a propensity among economists and others to speak in terms of a homogeneous "Chicago school," or, at the very least, to describe the evolution of the school as one of continuity from generation to generation. In fact, however, the Chicago school has never been homogeneous in approach or in ideology, and the passage of time has seen at least as much change as continuity at Chicago. This is certainly true of price theory and law and economics, each of which has loomed so large in the Chicago school's history. While each has associated with it some measure of continuity with its past, each has also been the subject of fundamental structural change. And, as the present paper has attempted to show, the changes on the price theory side played a significant role in stimulating changes in Chicago law and economics.

[Note: An appendix describing aspects of my larger project on the history of Chicago price theory follows the references. SGM]

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[53] Interestingly, Coase (1978, p. 206) also cites (approvingly) Stigler's 1952 definition of economics, which is the Knightian rather than Robbins-esque definition, and notes its connection to the traditional subject matter studied by economists.

[54] Robert Bork has also been critical of the economic analysis of law. Posner (1993a,b) has criticized Coase for his attitude toward the economic analysis of law.

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APPENDIX

PROJECT DESCRIPTION

FROM COMPETITIVE MARKETS TO MARKETS FOR EVERYTHING: A HISTORY OF CHICAGO PRICE THEORY

Introduction

This project seeks to understand the origins, evolution, and impact of Chicago price theory—the distinctive approach to economic analysis that for 75 years has been a signature of the Chicago school of economics and which has had a significant influence on economic theory and policymaking in the United States and around the world.

The Chicago school has played a dominant role in economics over the past half-century. With its numerous Nobel Prizes (nearly twenty percent of those awarded in Economics), its members have profoundly influenced both economic thinking and professional and popular perceptions of the efficacy of the market system. In the process, Chicago economics has had a substantial influence on economic policymaking in the United States and around the world. Much of this impact has been generated out of the Chicago price theory tradition and its analysis of individual behavior, the competitive market system, and the effects of state action on economic performance—to say nothing of the application of price theory to areas such as law, politics, family life, and religion. Chicago price theory is the distinctive Chicago-school variant of what is commonly known as microeconomics, and the central figures in the Chicago price theory tradition are some of the most prominent economists of the twentieth and now twenty-first centuries, including, *inter alia*, Milton Friedman, George Stigler, Gary Becker, and Steven Levitt (whose recent *Freakonomics* (2005), co-authored with Stephen Dubner, has popularized one variant of Chicago price theory). To date, however, there has been no systematic historical analysis of the evolution of Chicago price theory from its origins in the 1920s up to the present. The proposed project will help to fill this enormous void in the literature.

The Chicago approach to price theory has evolved significantly over time, but it has long had associated with it three distinguishing characteristics: (i) the pursuit of self-interest by economic actors is taken as given; (ii) competition is seen as inherent within and intrinsic to economic life; (iii) market-generated outcomes are said to be generally superior to those resulting from government interference with the market mechanism. Although the latter two propositions were being increasingly called into question within the economics profession at large during the middle third of the twentieth century, their continuity within the Chicago tradition served to set the Chicago school apart from much of the rest of the profession. The arguments regarding the virtues of the market were reinforced by the Chicago analysis of the public sector, which was said to provide cures that were likely to be worse than the ostensible market diseases. By the 1970s, the Chicago critique was causing economists to rethink their theories of the economic role of the state, and this eventually began to have substantial influence on the policymaking process, including the legal and regulatory environments.

These themes have continued to characterize Chicago price theory over the past several decades, but the signal contribution over this more recent period has come through its pioneering role in the rise of what is sometimes referred to as "economics imperialism": the application of economic analysis to areas outside of the traditional subject-matter of economics. Here, rational choice theory took center stage, and with this came an increasing tendency to define economics as the analysis of individual choice rather than as the study of the economic system. The Chicago school argued that the rational choice approach offered the prospect of explaining a far greater variety of behaviors than economists and other social scientists had ever contemplated, and this set the table for economists' imperialistic forays into fields such as law, political science, sociology, anthropology, and religion—a process that was led by the Chicago price theorists and their students and which has had a profound effect both on economics and on many of these other disciplines.

This project will, for the first time, provide us with an understanding of the evolution of this incredibly important and influential facet of the history of economics. It will focus on: (i) The price theory itself, including its origins and the things that made it distinctive from larger professional practice, how it evolved over time but yet remained distinct as a way of doing "microeconomics," and its place in the larger formalistic turn of economics during the middle third of the twentieth century. (ii) The empirical work and its relation to theory. (iii) The normative application of Chicago price theory, including the relationship between theory and policy and the Chicago perspective on the role of the state in economic activity. (iv) The application of the Chicago price theoretic framework to areas outside of economics and the impacts on both economics and the "invaded" disciplines, as well as the push-back from those working in these other disciplines. (v) The diffusion and impact of Chicago price theory, both domestically and internationally—within the economics profession through students, disciples, and "conversions," on popular opinion, and on the public policymaking process. (vi) The role and influence of larger contextual factors and forces affecting the development of Chicago price theory, including: the impact of sociological forces, including the internal workings of the Chicago department and the department's ability to bring together a group of like-minded individuals; more general intellectual and scientific currents outside of economics; intellectual, sociological, and professional forces within economics, including the evolving definition of economics, changing conceptions of economic science, the views of individual behavior and the associated relationship between economics and psychology, and the basic framework for doing theoretical analysis in economics; the use of the history of economic thought (particularly Adam Smith) to provide support for the Chicago approach; and the place of ideology in all of this—including the role of various funding agencies (many of them free-market-oriented foundations) in supporting research at Chicago.

This project will generate a richly contextualized history of the Chicago price theory tradition. As such, it will be heavily grounded in archival research and oral histories (including both existing oral histories and new interviews with living members of the tradition and their opponents), as well as the in-depth analysis of the scholarly and textbook literatures in Chicago price theory and the larger history of the economics profession and economic analysis during the twentieth century.

Over the next several years, this project will lead to a stream of articles that will be published in leading refereed journals and will culminate in a book on the history of Chicago price theory that will be published by a prestigious university press. Princeton and Cambridge University Presses have already initiated conversations with me about such a book. The Chicago price theory project is a natural outgrowth of the research embodied in my forthcoming book, *The Hesitant Hand: Taming Self-Interest in the History of Economic Ideas* (Princeton University Press, 2009).

Issues in Historicizing the Chicago Price Theory

At the most basic level, the issue here is to trace the evolution of Chicago price theory over time. What form did it take in different eras, and what were the implications of this? How did it change, and why? In particular, what caused the significant shift from a demand and supply oriented price theory that was used to study the working of markets to a price theory grounded in rational choice theory and applied to all manner of social phenomena? What is the explanation for the empirical turn in Chicago price theory and how did that influence its subsequent development?

Developing a deep historical understanding of the factors and forces underlying the establishment of the price theory tradition at Chicago and how it came to be such an influential professional and public policy force requires extensive attention to the context within which the Chicago price theory tradition developed and evolved, both inside and outside of Chicago. Internally, we need to get at the influence of and roles played by figures both major and minor within the Chicago tradition and the effect of the development of a creative community consisting of a particular set of individuals working together at a particular place and time. The relationship between Friedman and Stigler is especially important here: they were trained together at Chicago during the 1930s, worked together at the Statistical Research Group during World War II, and engaged in a lengthy written correspondence (much of it relating to price theory) before they became colleagues at Chicago in the late 1950s (Hammond and Hammond 2006). We also want to examine how price theory was used to help build a larger Chicago "school" and its place within the Chicago school. The relationship between the price theorists and the econometricians at Chicago—including the tumultuous relationship with the Cowles Commission economists—is important here as well. Other significant internal forces include (but certainly are not limited to) the development of the system for training price theorists, the spread of price theory beyond the Economics Department, and the creation of mechanisms for the dissemination of price theory.

Externally, it will be important to examine, *inter alia*, the institutionalist context against which Chicago price theory was developed in the 1920s and 1930s, how the formalistic and econometric movements in economics in the post-WWII period influenced Chicago price theory, the relationship of Chicago price theorists with the larger economics profession over the course of time, the relationship between Chicago price theorists and other social scientists as economics imperialism began to gain a toe-hold in economics and these other disciplines, and social and political conditions that made for a receptive environment for Chicago price theory in the policy realm.

In the pages that follow, we sketch out some of these larger contextual issues and their import for the present project.

The Role of Ideology in Chicago Price Theory

While we have not devoted a significant amount of attention in this project description to the Chicago analysis of competitive markets, this facet of Chicago price theory is a significant aspect of the intellectual history that will be probed in the project. It has both impacted the orthodox economic view of the market system and given rise to the charge that Chicago price theory promotes right-wing ideology. The latter viewpoint extends beyond the analysis of economic markets: the critics of economics imperialism have long charged that this work reflects an ideology of markets everywhere and the attendant conclusion that efficiency is the most important normative criterion for evaluating individual and social action.

The fact that foundations with a propensity to promote free-market or right-wing causes (such as the Volker Fund and the John M. Olin Foundation) have been active supporters of Chicago school research over the years has done nothing to reduce the extent of these charges (Van Horn and Mirowski 2005). Chicagoans have responded by asserting that they are doing nothing more than dispassionate theoretical and empirical analysis and that when empirical work suggests results consistent with free markets the normative conclusions drawn are simply a logical extension of the positive analysis. It is also pointed out that research in the Chicago price theory tradition has received significant financial support from more neutral sources, such as the National Bureau of Economic Research and the National Science Foundation.

We will explore the Chicago analysis of the market process, particularly as against the views extant in the profession at large, how this played out over time in the theory and empirical work, the role of external funding in supporting research in price theory, its application, and its dissemination, and the role of Chicago price theorists in the policy realm. The latter work has not been extensive. While Lazear is now chair of the President's Council of Economic Advisors, the leading lights of Chicago price theory—including Friedman, Stigler, and Becker—served as occasional advisors and testified as experts before congressional committees but did not hold formal governmental posts. The infamous relationship with the Pinochet regime (in which Friedman had some involvement but Chicago price theorist Arnold Harberger played the key role) is a significant moment in this aspect of the history (Valdés 1995).

Training Price Theorists

The training of price theorists was a central component of the Chicago price theory tradition and a necessary vehicle for the larger professional acceptance of Chicago price theory. This training has taken place in two arenas: the classroom and (eventually) the workshop.

Econ. 300

The centerpiece of the Chicago price theory tradition is the core graduate price theory sequence, Econ. 300a and 300b (later renamed Econ. 301 and Econ. 302). From the mid-1920s through the mid-1980s, these courses were taught by only a handful of individuals, including Frank Knight, Jacob Viner, Milton Friedman, Arnold Harberger, and Gary Becker. Only the elite were allowed to teach the core price theory courses: those mentioned here are the brightest senior lights of Chicago price theory in each generation.

For more than three decades, the two texts central to Econ. 300 were Frank Knight's *The Economic Organization* (1933) and Alfred Marshall's *Principles of Economics* (1890/1920). Marshall's *Principles* was a classic exposition of market economics, grounded in the model of demand and supply of which Marshall, the doyen of Cambridge economics, was the pioneering expositor. Knight and Viner were staunch defenders of the Marshallian approach as against the institutional approach that had wide currency in the U.S. in the 1930s. Later, Friedman defended the Marshallian approach against the more technical and mathematically sophisticated Walrasian general equilibrium analysis championed by future Nobel laureates Kenneth Arrow and Gerard Debreu (see Arrow and Debreu 1954; Debreu 1959), which came to dominate economic theory from the 1950s into the 1980s. Marshall saw the demand-supply model as a tool for the analysis of concrete economic problems, which fit well with the approaches of Viner and Friedman in particular. Friedman's course focused on the application of this framework to a wide range of problems, and the questions from Friedman's exams—which focused on using price theory to explain current economic events rather than on the manipulation of technical models—attained legendary status.

To get at the place of the price theory courses in the history of Chicago price theory, we will examine how the courses evolved over time and how they compare with courses at, e.g., Harvard, Yale, and MIT over this same period. For example, as economics became increasingly mathematical, how did the mathematization of Chicago price theory track against that at these other universities? One data point here is that as Econ. 301 and 302 became more mathematical, a new Econ. 300 course, originally taught by Donald (now Deirdre) McCloskey, was added to prepare students for the rigors of 301/302. Chicago "microeconomics" has also evolved beyond Econ. 301/302 with the addition of courses in a variety of micro areas and a much broader range of subjects and topics (e.g., game theory)—courses that mark a significant departure from older and newer forms of Chicago price theory and reflect the influence of theoretical tools and approaches developed outside of Chicago over the last few decades.

I have access to multiple sets of student notes from Viner's and Friedman's price theory lectures, including essentially verbatim transcriptions of each from different periods. Getting lecture notes from Harberger's course and from Becker's course will be an important next step, though, like Friedman, Becker's lectures from the 1960s and early 70s are largely reflected in his *Economic Theory*. I plan to conduct interviews Harberger, Becker, McCloskey and Kevin Murphy, as well as students who sat the 301 and 302 courses over the years. I will also examine how syllabi evolved in terms of topics covered, readings assigned, what these things meant for the content of Chicago price theory.

One further aspect of this facet of the project is the bringing to publication of the student notes from Viner's Econ. 300a,b lectures. These will appear as part of the Chicago price theory classics set in the "Classics in Economics" series for Transaction Publishers. (This series already includes reissues of the price theory texts of Friedman and Becker, with additional volumes forthcoming.)

Applying Price Theory in the Workshops

The workshop system has played an important role in Chicago economics since the late 1940s (Emmett, 2007) and has been instrumental in allowing students to further develop and apply the price theory tools that they learned in their core courses. When one thinks of workshops, what comes to mind are the regular departmental seminars featuring talks by faculty members and visiting speakers. But the Chicago system was different. Each student who had passed comprehensive examinations in the core areas of price theory, monetary theory, and econometrics was assigned to a workshop, where students and professors worked closely together *on a daily basis* and regular seminars were given by Chicagoans and outside visitors. It was here that the students learned to apply the tools of price theory.

While there was never a formal workshop in price theory, several of the workshops established in the 1950s and 60s involved its application to fields within economics, including labor economics, industrial organization, urban economics, and the economics of education. In the early 1970s, the "Applications of Economics" workshop was established under the direction of Gary Becker, and later in that same decade Ruben Kessel established a workshop in "Applied Price Theory." These continue today, along with a more recently added workshop in "Rational Choice," also directed by Gary Becker, which deals with the application of rational choice theory across the social sciences.

We will utilize the archives and interviews with participants in the price theory-related workshops to examine the role that these workshops played in the development of Chicago price theory.

Price Theory in the Law School

Chicago price theory was by no means the exclusive province of the economics department at Chicago. The Law School, the Graduate School of Business (Stigler's home), and, more recently, the Harris School of Public Policy have all played an important role in the history of price theory at Chicago. But the influence has perhaps been greatest in the Law School, about which we will say a few words here (see Kitch 1983 and Coase 1993 for views from the inside).

Price theory spread to the University of Chicago Law School in 1939 with the appointment of Henry Simons to the Law School faculty. Knight brought Simons with him when he migrated from the University of Iowa to the University of Chicago, but a political battle in the Department of Economics, combined with Simons' poor reputation as a teacher and very limited scholarly output, resulted in a departmental fight over his promotion and tenure. The matter was resolved with Simons' part-time appointment to the law faculty, where from 1939, he taught a course entitled "Economic Analysis of Public Policy." It was this course that inaugurated the tradition of teaching price theory to law students at Chicago.

Simons' death in 1946 led to the appointment of Aaron Director (brother of Rose Friedman), who took over Simons' course on "Economic Analysis of Public Policy" and eventually co-taught the antitrust course with Edward Levi (see also Director and Levi 1951). Director had taken his price theory at Chicago from Knight and Viner in the late 1920s, and through his law school courses Director exposed Chicago law students to price theory for nearly two decades, until his retirement from the Law School faculty in the early 1960s (Bork 1967, Bowman 1957, McGee 1958). The tradition of having an economist on the Law School faculty was carried on in the persons of Ronald Coase (1993) and, from the mid-1970s, William Landes (2005), who had done his graduate work under Becker at Columbia.

We will examine the archival records behind the establishment of the price theory courses in the Law School, the hiring of Simons and Director, examine lecture notes and reading lists from the courses, and interview individuals who took these courses. Graduates of the law school who have gone on to apply law and economics in various contexts have spoken of a transforming effect of Director's lectures; yet, there is little sense in the literature for how and why this transformation took place, nor for the view of faculty (e.g., Karl Llewellyn) and students who saw this incursion of economics into the Law School curriculum very differently. We will draw on various archival resources and oral histories in an attempt to get at how price theory impacted education in the Law School, as well as in the Graduate School of Business and the Policy School.

The Dissemination of Chicago Price Theory

The dissemination of Chicago price theory has taken many forms. One of these, of course, was the training of students who went on to take up faculty positions at other universities or entered the realm of economic policymaking. Another prominent means by which Chicago price theory was disseminated was through the use of publications. This included the publication of graduate and undergraduate textbooks, the use of Chicago journals—in particular, the *Journal of Political Economy*, which some have referred to as the house organ of the Chicago school—to publish scholarly articles in price theory and its applications, and the popularization of Chicago price theory through more mainstream media outlets.

The Price Theory Texts

The Chicago price theory texts were vehicles for teaching price theory at Chicago, but they were also important in the dissemination of Chicago price theory. One illustration of this can be seen in Stigler's text and his evolving conception of the definition, scope, and domain of economics through the book's several editions. Stigler's *Theory of Competitive Price* (1942) was the first American text to employ the Robbins definition of economics as a science of choice (see Backhouse and Medema 2008), though at this stage Knight's influence is evident in Stigler's discussion of the domain of economics, which drew heavily on Knight's *The Economic Organization*. Stigler carried the Robbins definition of economics into the revised version of his text, which he titled *The Theory of Price* (1946), but, for reasons that are unclear (and which I hope archival research will reveal), he altered his definition for the 1952 edition in favor of something much closer to Knight: "Economics is the study of the operation of economic organizations, and economic organizations are the social (and rarely, individual) arrangements to deal with the production and distribution of economic goods and services" (1952, p. 1). This last reference to "economic goods and services" is particularly interesting for our purposes and is even remarked upon by Stigler, who noted that:

> It should be only a minor annoyance to the reader that we define economics in terms of economic goods and services. A more popular definition of economics—the study of the allocation of scarce means among competing ends—also requires the tacit introduction of "economic" before "ends" in order to exclude a vast area of which economists have no professional knowledge (p. 1n).

Even so, Stigler continued to maintain that scarcity is the "central element of the economic problem" (p. 1), though he seems to have believed at this stage that the scope of applications is rather narrow.

By the third edition of 1966, both the definition of economics and the footnote about "economic goods and services" had disappeared from *The Theory of Price*, and three references to Becker's work on discrimination, investment in education, and fertility offered a signal that perhaps Stigler was finding his former definitional discussions overly restrictive. The fourth (and final) edition, published in 1987, also eschewed definitions, although Stigler did allow that his text "presents the essentials of the theory of the allocation of resources and the determination of prices" (1987, p. 1) and his chapter-length Knightian discussion of the economic organization, which had been carried through every edition to that point, was replaced by a treatment of the role played by *prices* in an enterprise economy. The 1987 edition is also distinguished by the attention that it gives to economics imperialism in general and to Becker in particular. The treatment of Becker includes a full-page boxed insert (one of twenty in the book) where Stigler notes that "Becker has done more than any other economist to enlarge the working domain of the profession" (1987, p. 239), and the book contains numerous reference to Becker's work on discrimination, education, crime, the family, and politics. In contrast, Friedman's 1976 edition contains only the two passing references to Becker's work, and these to fairly traditional economic topics.

The Chicago economics department does not teach undergraduates, which may explain the lack of a push to create undergraduate texts in the Chicago tradition. The Knight, Stigler, Friedman, and Becker texts were all written for graduate students. Stigler's book evolved into an undergraduate text as graduate economics became more mathematically sophisticated. Over the last few decades, McCloskey (1982) and Steven Landsburg (1989) have also written undergraduate texts that present the Chicago price theory approach to senior undergraduates, and a recent book by James Miller (2008), a former student of Gary Becker, brings a Beckerian version of Chicago price theory down to the principles (that is, introductory economics) level.

We will examine the role played by these texts in the teaching and larger dissemination of Chicago price theory. At Chicago, the texts themselves were rather secondary, at least from the perspective of the professors. To what extent were these books adopted by faculty at other universities, including by those not trained at Chicago? Extremely casual empiricism suggests that Friedman's text, which was based on student lecture notes taken in the late 1950s (see the preface to Friedman 1962, as well as Fand 1999), was never widely used, and the same seems to be the case for Becker's text. Stigler's, on the other hand, was in print for more than four decades. We are also concerned about the ways in which these texts are similar and different, and why—and there are significant differences between them. To take just one example, both Stigler and Friedman opposed the theory of monopolistic competition. Yet, Stigler included a discussion of monopolistic competition in his text and Friedman did not. Why? Was it for commercial viability/imposed by the publisher? And how does the content of these texts change across the generations of Chicago price theory?

The Journals as Dissemination Vehicles

The *Journal of Political Economy* (*JPE*) has long functioned as the primary vehicle for the dissemination of research in and applying Chicago price theory, both for Chicago faculty and for newly-minted Chicago Ph.D.'s. This is true of significant moments in the price theory per se as well as in the application of price theory to the traditionally economic and non-economic realms. Very little of the significant work in Chicago price theory was published in the *American Economic Review*, the *Quarterly Journal of Economics*, the *Economic Journal*, or *Economica*. That the *JPE* was a house organ for Chicago economics was not unusual: the *Quarterly Journal of Economics* served this purpose for Harvard, the *Economic Journal* did likewise for Cambridge economics and *Economica* for the London School of Economics. Yet, the Chicago-*JPE* link has long been seen as somehow different, but no good historical sense for this (if true) has been developed in the literature.

Knight and Viner co-edited the *JPE* from 1930 through 1946, and during this time roughly three-fourths of the articles published in the *JPE* were written by Chicago faculty members, students, or alumni (Henderson 1976, p. 355). Albert Rees and George Stigler were among those working in the Chicago price theory tradition who served as editors of the *JPE* over the subsequent decades. Chicago economists also established field journals to promote the dissemination of research in applied price theory areas: the *Journal of Law and Economics*, *Journal of Legal Studies*, *Journal of Labor Economics*, and *Journal of Human Capital*. We will explore how these journals—in particular, the *JPE*—were used to facilitate the dissemination of Chicago price theory.

The Policy Realm

We noted earlier that the leading lights in the Chicago price theory tradition have not been overly active in the policy-making process—serving as advisors to Presidents, etc. However, there has been increasing influence of Chicago price theory on the policy process over time, and some of this has come from the movement of Chicago-trained or influenced economists into the policy realm, both directly (serving as economists for the Executive and Legislative branches) and indirectly (through work at policy-oriented think tanks such as the American Enterprise Institute and the Hoover Institution). We will explore the influence of Chicago price theory and price theorists on the policy-making process through these various avenues.

The Popularization of Chicago Price Theory

A handful of economists have been successful at popularizing economic ideas over the past half-century, including Paul Samuelson, John Kenneth Galbraith, and, more recently, Paul Krugman. But, here, too, the Chicago price theorists have been very prominent. Milton Friedman was perhaps the first economist public intellectual of the post-war period. His *Free to Choose* (1980) book and PBS television series brought the applications of Chicago price theory to the public at large, and his *Newsweek* columns opposite Samuelson served to illustrate the distinctions between the world views underlying Chicago price theory and its neoclassical mainstream counterpart. Gary Becker, too, has been active on this front, writing a series of columns for *Business Week* magazine, many of which showcased the application of economic reasoning to topics that the layman would not traditionally associate with economics (see Becker and Becker 1997 for reprints of these columns). The contemporary

Becker-Posner Blog, featuring debate between Becker and Richard Posner carries on this facet of Becker's work. Steven Landsburg's *The Armchair Economist* (1993) introduced scores of people to the application of economics—Chicago style—to everyday life, and Steven Levitt's recent best-seller, *Freakonomics* (2005), has exposed millions of people to the contemporary variant of Chicago price theory and its application to all manner of social phenomena.

We will explore the involvement of Chicago price theorists in these mainstream media projects, how they became so influential, and how this, in turn, influenced policymaking.

Research Timetable and Publication Goals

The goal of this project is to write a series of journal articles and book chapters—and ultimately a book—on the evolution and impact of Chicago price theory.

The project is still in the very preliminary research stages. I have drafted one paper on the relationship between Chicago price theory and Chicago law and economics over the past sixty years (Medema 2008), but this focuses on the theory at a very general level (reflected in the overview of Chicago price theory, above), and does little if anything to contextualize the evolution of the theory or probe more than one particular facet of that theory. This paper is likely to be published in a book, edited by Philip Mirowski and Robert Van Horn, that is emerging from the conference for which the paper was originally written. I also have written extensively on the history of Chicago law and economics and other aspects of the history of economics in the twentieth century (see, for example, Medema 1994, 1996, 1998, 2000, 2009b; Mercuro and Medema 2006) and so have a good sense for the broad contours of the Chicago school and some of the larger professional context. But all of this serves merely as a starting point for the research to come.

The necessary next step is to carry out extensive archival research and oral history work, along with the massive amounts of reading necessary to come to grips with the literature in and surrounding Chicago price theory and the context in which it developed from the 1920s to the present. Of particular import here are the archival work and the oral histories. Many of the players from the post-war period are getting on in years, and it will be important to interview them soon. There is an enormous amount of archival material that must be examined, with more becoming available all the time, and this is scattered across the country. I anticipate that the archival and oral history research will take three years to complete. Some papers will be written during the grant period proper, but most of the serious writing will come later.

Conclusion

This project attempts to trace the history of Chicago price theory and its impact on economic analysis and economic policymaking, illuminating the factors and forces that have influenced its evolution over time. Its impact has been substantial across a range of fronts. Academically, it has been highly influential both in economics and across the social sciences. The introductory economics courses taught to tens of thousands of undergraduate students each year increasingly reflect the applied social issues orientation that was pioneered by Chicago price theorists and the Chicago perspective on the efficacy of markets. The policy realm bears its unmistakable imprint, particularly on the regulatory front. Levitt's *Freakonomics* has spent more than a year on the best-seller list. Chicago price theory remains controversial, but yet in some respects has become mainstream. A broader understanding of the history of this very important movement in modern economics is thus both important and timely, and will fill a significant gap in the literature on the history of economics and of the social sciences generally.